

**SOUNDING PLACES:
SITUATED CONVERSATIONS THROUGH THE SOUNDSCAPE
COMPOSITIONS OF HILDEGARD WESTERKAMP**

ANDRA SHIRLEY JEAN McCARTNEY

**A thesis submitted to the Faculty of Graduate Studies in partial fulfillment of the
requirements for the degree of**

Doctor of Philosophy

Graduate Programme in Music

York University

Toronto, Ontario

August 1999

copyright page

certificate page

Abstract

In this dissertation, I consider the significance of Hildegard Westerkamp's work to current scholarship in the area of feminist epistemology, and to contemporary electroacoustic music in the genre of soundscape composition, specifically in her receptive, dialogic approach to particular places and their sonic, social, political and technological resonances.

In Chapter Two I discuss how Canadian concert composers deal with the idea of Canada as a place within music of the last century, differentiating the generalized myths of nationalist music from Westerkamp's focus on specific places. In Chapter Three, I focus on the position of soundscape composition within electroacoustic music, using feminist epistemology as a critical lens. Chapter Four is a biography of Westerkamp. Chapter Five is about my analytical methods: I bring together critical and feminist theory with James Tenney's gestalt approach to musical analysis, and listener responses.

In Chapter Six I discuss the importance of soundwalking to Westerkamp's association with acoustic ecology, to her early compositional formation, as well as to her work as a radio artist, through an analysis of *Kit's Beach Soundwalk*. The CD ROM also includes a website and an interactive installation about soundwalking. In Chapter Seven, I analyze *Cricket Voice*, a wilderness piece about the sounds of a cricket in the desert and about the urban person's experience of desert as spiritual refuge and alien environment. *Moments of Laughter*, the subject of Chapter Eight, is a performance piece based on Westerkamp's musical relationship with her daughter. The CD ROM includes excerpts of *Moments of Laughter* linked to images and score excerpts. In Chapter Nine, I analyze *Breathing Room*, a miniature intended to reflect Westerkamp's overall style. I interpret *Breathing Room* as a representation of a cyborg body, using Donna Haraway's ironic image of the

cyborg. The CD ROM includes an installation based on this analysis. In Chapter Ten, I analyze *Gently Penetrating Beneath the Sounding Surfaces of Another Place*, which is representative of Westerkamp's current international work, based on her experiences of sound in New Delhi. I chronicle the construction of this piece in a section on the CD ROM called "In the Studio." The conclusions consider interactivity in the hybrid form of the dissertation, in the developing relationship between Westerkamp and myself, and in the constructed dialogues of my analyses.

Acknowledgments

to Hildegard Westerkamp, for opening up her heart and home to me, for trusting me with so much of her life and work, for walking with me in British Columbia, in Ontario and in my dreams

to the over two hundred listeners who participated in this study, for the insight, surprise and challenge of their responses

to my supervisor, James Tenney, for his inspiring ideas and generous attitudes about composition, contemporary music, and how to listen intently

to Beverley Diamond for her clear thinking about identity issues and her excitement about new approaches to fieldwork; for her consistent support, challenge and energy

to Jody Berland for fuelling my interests in praxis, cultural theory and contemporary music since we first met seventeen years ago; for continuing to spark new directions in my creative work and research

to Lorraine Code for her insights about second-person epistemology and for urging me to develop the "connective tissue" of my writing

to Norma Sue Fisher-Stitt, Jane Couchman and Katharine Norman for their insightful commentary on the dissertation in its final stages

to the Social Sciences and Humanities Research Council and to York University for providing scholarships to support this research

to the Canadian Association for Sound Ecology for their support of my work; particularly to board members Claude Schryer and Gayle Young for presenting the CD ROM in Stockholm

to Jean Routhier, Barb Woolner, Andrea Polli, Barry Truax, and the staff of earsay productions, for helping to organize listener response sessions

to Tere Tilban-Rios for assistance in negotiating the paperwork

to Evy Strong, Don Sinclair and the staff of the Winters Fine Arts Computer Centre, for providing access to computer facilities in a supportive environment

to Judith, Jean, and Jeff McCartney; Kate Thomas, Peter van Wyck, Don Sinclair, Donna Warr, Mawgan Macdonald, Karen Pegley, Gary Ferrington, Laurence Montgomery, Joshua Thorpe, and Lauren Pratt for the stimulating conversations about various parts of this study

to my daughter, Sian Hughes, for accompanying me to North Toronto C.I. and for mulling over many of the issues raised in that session

to my son, Daniel Hughes, for being my science fiction companion (including the all-day *Alien* series extravaganza) and for the assistance with data entry

to my dog Nikita for being my first audience for *Moments of Laughter* and for stirring me to go for walks

and most of all to my partner, P. S. Moore, for his creative collaboration in *Soundwalking Queen Elizabeth Park*; for organizing the move to Montréal as I wrote; for even on the difficult days, making me laugh

Thank you.

Table of Contents

iv		Abstract
vi		Acknowledgments
1	Chapter One	Introduction
18	Chapter Two	Musical place in Canada
70	Chapter Three	Knowing one's place
131	Chapter Four <i>Breathing Room</i>	Westerkamp's Soundings: biography as
163	Chapter Five	Methodologies: listening to electroacoustic music, reading responses
193	Chapter Six environment: <i>Kits Beach Soundwalk</i>	Soundwalking as subjectivity in
228	Chapter Seven	<i>Cricket Voice</i> and the power of wilderness
264	Chapter Eight	<i>Moments of Laughter</i> : recording childhood, performing motherhood, refusing to shut up, and laughing
309	Chapter Nine	<i>Breathing room</i> and the twofold pressures of the cyborg body
336	Chapter Ten	<i>Gently Penetrating Beneath the Sounding Surfaces of Another Place</i> : inside and outside the soundscape
364	Chapter Eleven	Conclusions
375	Appendix A	North and South: Fernandez reading <i>Ethnocentrism</i>
376	Appendix B	Northernness and Canonicity

383	Appendix C headings	Electroacoustic textbooks and chapter
384	Appendix D anthologies of electroacoustic music	Soundscape works appearing in recorded
396	Appendix E	Listener responses: summary information
398	Appendix F	Operation of the CD ROM
401	Appendix G compositional process and audience responses	<i>Soundwalking Queen Elizabeth Park:</i>
407	References	Works by and about Westerkamp; references and bibliographic sources

Chapter One

Introduction

In the winter of 1989, on Peterborough's community radio station, Trent Radio, I heard Hildegard Westerkamp's *Cricket Voice*. I was transported into a world in which the song of a single cricket reverberated and resonated in an expansive place, in a way that I had never heard before. Moreover, I felt urged to compose. It was an odd sensation. I had grown up listening to and playing a wide variety of music, and had always been drawn to electroacoustic music (even though initially I didn't call it that) since first hearing it in England at a very early age.¹ I had heard the work of hundreds of composers, and had never felt drawn to compose electroacoustic music before this. Yet now a powerful desire to record sounds and work with them on tape caused me to go out, rent equipment, and begin. Since then, I have discovered that, through her composition, teaching, and radio work, Westerkamp has had a similar effect on other composers, and is a particular source of inspiration to many women composers in Canada. I believe that this is due to the way she approaches soundscape. In the liner notes to Westerkamp's recent CD,

Transformations, American composer Pauline Oliveros says:

One can journey with her sound to inner landscapes and find unexplored openings in our sound souls. The experience of her music vibrates the potential for change. Her compositions invite interaction—a chance to awaken to one's own creativity.²

In this dissertation, I consider the significance of Hildegard Westerkamp's work to current scholarship in the area of feminist epistemology, and to contemporary electroacoustic music in the genre of soundscape composition. I focus specifically on her

¹ On the program *Dr. Who*. After thirty years, I can still hear it. I wasn't aware at that time that the music for this British TV show was composed by Tristram Cary, an electroacoustic composer who is perhaps better known in the electroacoustic world for his work on the VCS3 or Putney synthesizer (Chadabe 1997: 53-54; 150-152).

² Oliveros, Pauline. "The Music and Soundscapes of Hildegard Westerkamp." *Transformations* CD liner notes. Montréal: DIFFUSION i MÉDIA, 1996, 18.

receptive, dialogic approach to particular places and their sonic, social, political and technological resonances.

The title of this dissertation, "Sounding Places," has several implications. It refers first to Westerkamp's insistence on a way of working that I call sounding, referring to the mariner's slow and careful navigation through unfamiliar waters, finding a channel through invisible topography.³ Westerkamp takes time to listen to places in depth in order to understand them, moving slowly and carefully through landscapes, listening to their resonances. Sounding places is also a term to describe the pieces that she composes, which explore the intricate sonic relationships of active environments, places that are sounding. The title also points to the importance of the concept of place in my discussion: the places where pieces are composed and performed, the mediated locations (such as radio shows or CDs) where the pieces are heard, and the places evoked in the responses of listeners. The relationships between different kinds of mediated places are particularly important to this dissertation, as it takes the form of a CD ROM with accompanying website and book. While chapters one to four exist primarily on paper (and electronically as text files in an archive on the CD ROM), the remaining chapters have crucial components in interactive multimedia format: partly as a website being developed on the York University Faculty of Fine Arts server (www.finearts.yorku.ca), and partly as a CD ROM.

³ Especially in difficult weather: "In fog, mist, falling snow or heavy rainstorms, whether by day or by night, the signals described in this Article shall be used" (*The International Regulations for Preventing Collisions at Sea* Article 15, paragraph 4. This set of regulations is known colloquially to seamen as the *Rules of the Road at Sea* and was adopted by the International Convention for the Safety of Life at Sea (SOLAS) in 1929). Mariners would listen to fog horns, ships' sirens and echoes to judge distances from other vessels and the shoreline. Officers on sea-going vessels are expected to know all the rules. I am grateful to my father, Capt. Jeffrey McCartney, for this information. As an officer and examiner of Masters and Mates, he was expected to know these rules by heart and be able to quote them.

The phrase "situated conversations" in my subtitle refers both to Westerkamp's approach to composition and to my method of analysis of her work. Donna Haraway writes:

Situated knowledges require that the object of knowledge be pictured as an actor and agent, not a screen or a ground or a resource, never finally as slave to the master that closes off the dialectic in his unique agency and authorship of "objective" knowledge ... Accounts of a "real" world do not, then, depend on a logic of "discovery" but on a power-charged social relation of "conversation." (1991: 198)

Consideration of the power of social relations in the construction of knowledge is also important in the work of Lorraine Code, who has developed a feminist epistemology that approaches knowledge as a social construct produced and validated through critical dialogue, engaged with the subjectivity of the knower. When I think of Westerkamp's soundscape work, I hear conversations with active sound environments in specific places in which she is always aware of her own position as recordist. My method of analysis of her work makes evident the diverse conversations between composer and listeners, composer and researcher, musical work as composed and as heard. In each of these conversations, the actors are situated, emplaced.

But Code's ideas are more fundamental to my work even than this. This dissertation is in many ways an exploration of the epistemic potential of friendship. In her discussion of the importance of second persons to the construction of knowledge, Code— in distinction from feminist thinkers such as Sara Ruddick who suggest maternal thinking as a model—proposes friendship as an epistemic paradigm:

In place of asserting a "natural," "found" sisterhood, appeals to friendship's epistemic dimension open up creative possibilities for achieving sound, morally and politically informed alliances, in which sisterhood, as Bidy Martin suggests, "is achieved, not assumed; it is based on affinities and shared but not identical histories." Alice Walker's conception of the "rigors of discernment" that such achievements demand; Hannah Arendt's alignment of friendship with thinking, a considered thoughtfulness, mutual respect—her claim, for example, that "the dialogue of thought can be carried out only among friends" counters traditional

associations of women's friendships with irrationality and triviality. At their best, women's friendships promote forms of solidarity that "are grounded not in claims to victimization but ... in the convergence of shared perspectives, shared competencies and shared pleasures." (1991: 102-103)

In part, this dissertation explores how the growing friendship between Westerkamp and me opens up creative possibilities for a sound alliance between us, and contributes to our knowledge. This theme emerges throughout the dissertation, but most particularly in the methodologies chapter, the chapter on soundwalking, the chapter on *Moments of Laughter*, and in the conclusions, where I discuss some of the dimensions of this continuing dialogue. This is a friendship that began with my curiosity about her work, and extended from there into many other areas of our lives. We have stayed at each others' homes, shared intimate details about our life histories, our children have met, and we have walked for miles together. She has trusted me to treat her and whatever knowledge she gives me with respect, as she treats the inhabitants of the soundscapes that she works with in her compositions.

Westerkamp's approach to composing is based on listening to the sounds of a place, and using electronic means to subtly highlight the voices of that place, drawing attention to its sonic specificities and musicalities. Because of Westerkamp's insistence on the specificity of places, it is important to consider current scholarship about place and music. Chapter Two begins with a discussion of the importance of the concepts "absolute" and "program" as they affect contemporary composers' approaches to place in music. I consider these concepts in light of current critical anthropological and geographical constructions of place.

In Western concert music, place has been considered important in relation to the musical societies or repertoires of a location. The physical effect of the sound environment and its significance to the compositional approaches of concert music composers has been

discussed only rarely until recently, and traditionally has been considered an extramusical concern. For instance, the title of a thesis on environmental references in the work of R. Murray Schafer is called "*Extramusical* References in the Works of R. Murray Schafer" (Bradley 1983, my emphasis). Some recent publications about concert music, most notably *The Place of Music* (Leyshon, Matless and Revill 1998), are beginning to consider the influence of place in the compositional practices of certain composers. My discussion of Westerkamp's approach to place contributes to this literature.

Although some composers have succeeded in creating evocative images of places using acoustic instruments,⁴ tape recording has allowed electroacoustic composers to work with the actual sounds of places. Still, there has been very little writing until recently in this field about approaches to place. Among more recent examples, Trevor Wishart discusses the use of landscape in electroacoustic music. His focus is on the generalizable, symbolic properties of landscapes, not on the acoustic distinctions and relations among *specific* landscapes, and their relationships with social, political and geographical contexts. In his discussion of his work *Red Bird*, he generalizes the morphology of landscapes in order to create a symbolic virtual landscape that mimics the spatial qualities of real landscapes, without being closely related to any particular one. Wishart thinks of the sounds in *Red Bird* as symbols, and associations of meaning are derived from juxtapositions and gradual transformations between sounds that are not related to existing places:

The transformations [of sounds] are neither simply relatable to existing acoustic spaces, nor do they relate to any conceivable or visualizable events in the real world ... we find ourselves travelling in a dream landscape which has its own logic." (1986: 52)

While Westerkamp considers the symbolic meaning of landscapes in her work, this is not the main focus. She maintains links with events in the real world throughout her play

⁴ For example, Claude Debussy's *La Mer*, or R. Murray Schafer's *Waves*, which uses the timing of ocean waves as a structural basis.

with the boundaries between dream and reality. Her discussions of her work focus on the particularity of places, and her situated perspective as recordist:

... the recordist's position and perspective, the physical, psychological, political and cultural stance shaping the choices when recording. My choices are influenced by an understanding of the sonic environment as an intimate reflection of the social, technological and natural conditions of the area. (Westerkamp 1994: 89)⁵

The logic of Westerkamp's compositions is a logic derived from conversations with the sound environment, a logic that reflects her experience of that environment: its transformations within her imaginary always shift and return to the outside world, echoing in a slightly different way each time.

Westerkamp's approach to place in soundscape composition has certainly been affected by her association with the World Soundscape Project (WSP) in Vancouver in the 1970s. The work of the WSP has received little mention in scholarly work about electroacoustic composition. As I discuss in my Master's thesis on the work of Canadian women composers of electroacoustic music (McCartney 1994: 15-17), there has been little said in international academic literature about the development of electroacoustic music in Canada as a whole, despite Canada's important contributions in acoustic ecology,⁶ *musique acousmatique*, and sound environments in virtual reality. Some international authors do not mention Canadian work at all, while others briefly discuss work at the University of Toronto studio, or early work by Hugh Le Caine at the National Research Council in Ottawa. Canada has generally been perceived as marginal to electroacoustic

⁵ Throughout the dissertation, I have chosen to use a different format for Westerkamp's quotes than for quotes by others. Her quotes are presented in a different font, and not indented. This is an attempt to acknowledge the level of dialogue that has existed throughout this work. Westerkamp has read each chapter of the dissertation, editing for accuracy but also discussing with me many of the issues that arise in relation to her work. We have also carried on an animated email correspondence on a frequent basis about these issues and others. In the CD ROM text archive version, if it is not otherwise obvious, I indicate her quotes with HW at the beginning, since both indentation and fonts are removed from text documents.

⁶ Acoustic ecology is the study of the relationship between living organisms and their sonic environment or soundscape. The World Forum for Acoustic Ecology (WFAE), founded in Banff, Alberta in 1993, is an international interdisciplinary coalition of individuals and institutions concerned with the state of the world soundscape. The Canadian Association of Sound Ecology (CASE) is a regional affiliate of WFAE. Westerkamp and I are founding members of both organizations.

activity, with most of the literature concentrated on developments in Europe and the United States.

The compositional work done by members of the World Soundscape Project (WSP) at Simon Fraser University in the 1970s is not mentioned at all in texts devoted to electroacoustic composition, perhaps because the project primarily emphasized research and education about the soundscape. On the other hand, they have been very productive and have published widely in the fields of music education,⁷ communications,⁸ radio art,⁹ and acoustic ecology.¹⁰ Most of the project members were composers, including Westerkamp, R. Murray Schafer (who directed the project), Barry Truax, Peter Huse, Bruce Davis, and Howard Broomfield. All of these composers produced musical works as a result of their association with the WSP. The only time that these works have been discussed in texts on contemporary electroacoustic composition is in recent writings by Barry Truax.¹¹ This dissertation will contribute to the literature on electroacoustic composition in its detailed discussion of the electroacoustic compositions of Hildegard Westerkamp.

⁷ For instance, Murray Schafer's *A Sound Education*, Indian River, Ontario: Arcana, 1992; and *The Thinking Ear*, Indian River: Arcana, 1986.

⁸ For example Barry Truax' *Acoustic Communication*, Norwood, NJ: Ablex, 1984.

⁹ See for instance Schafer's and Westerkamp's contributions to *Sound By Artists*, Banff AB: Walter Phillips, 1990; and Westerkamp's contribution to *Radio Rethink: Art, Sound and Transmission*, Banff, AB: Walter Phillips, 1994.

¹⁰ The most obvious example here is Schafer's well-known *The Tuning of the World*, Toronto: McClelland and Stewart, 1977. There were many other publications produced as a result of the work of the World Soundscape Project; however Schafer's large volume is the best known internationally, having been translated into several different languages.

¹¹ Truax, Barry. *Acoustic Communication*. Ablex: Norwood, NJ, 1984. This book, primarily concerned with an acoustic approach to communication studies, has a chapter on electroacoustic composition. Soundscape composition is discussed within that section. The more recent "Soundscape, Acoustic Communication and Environmental Sound Composition" (1996) focuses specifically on soundscape work at Simon Fraser University in relationship to contemporary composition.

The second part of Chapter Two continues the discussion of place in music by focusing on Canadian music. I refer to contemporary Canadian literary, art, and musicological theory in my discussion of the idea of Canada as a place within concert music of the last century, how some Canadian concert composers deal with places within Canada, and how their ideas of place have interacted with current international conceptions of what Canada is. This section situates Westerkamp's work within the Canadian concert and electroacoustic music communities. I also differentiate the generalized myths that characterize nationalist music from music that refers to specific places, considering also how associations with current conceptions of the "true North" can affect a composer's canonicity and acceptance in the national and international communities.

Soundscape composition as a genre has remained relatively marginalized within the field of electroacoustic music. In Chapter Three, I focus on the development of contemporary soundscape composition, its lack of canonical acceptance within the field of electroacoustic music, and the epistemological significance of its positioning within this field, using feminist epistemology as a critical lens. I discuss definitions of electroacoustic music, and the categorization of the field in several electroacoustic textbooks, focusing particularly on how tape music, and more specifically soundscape music, is represented. I then examine the dialogues among several composers (Pierre Schaeffer, Karlheinz Stockhausen, John Cage, and Pierre Boulez) who influenced thought about electroacoustic composition in the late 1940s and 1950s, at the time when the first studios began to be established. Finally, I discuss two women composers, one whose influence was circumscribed by her isolation (Daphne Oram), and one who has influenced Westerkamp's work (Pauline Oliveros), and end with an investigation of Westerkamp's thinking. I discuss how the canonical positions of these composers, or their failure to achieve canonical status within the field of electroacoustic music, is related to their acceptance of assumptions that structure the genre.

One of the assumptions that has structured conventions of tape music is the idea of the isolated "sound object" [*objet sonore*] originated by Pierre Schaeffer. Soundscape composition considers sounds in relation to each other, in relation to listeners, *and* as intrinsic sound objects. Barry Truax describes this contextual approach as concerned with listeners' experiences and associations with sounds.

In the soundscape composition ... it is precisely the *environmental context* that is preserved, enhanced and exploited by the composer. The listener's past experience, associations, and patterns of soundscape perception are called upon by the composer and thereby integrated within the compositional strategy. Part of the composer's intent may also be to enhance the listener's awareness of environmental sound. (Truax 1984: 207)

Truax focuses primarily on the relationship between composer and listener, in which the composer calls on and integrates the listener's sonic associations. Awareness of the sonic environment is a secondary intent in his description, partial and possible. Hildegard Westerkamp describes an ongoing interaction in which the environment is central. "The word soundscape always implies *interaction* between environment and individual, and between environment and community" (Westerkamp 1988: 3). This contextual approach of soundscape composition is often undervalued or misunderstood in the field of electroacoustic music which values skillful manipulation of isolated sounds as abstractions, following the traditions of *musique concrète*¹² and *elektronische Musik*.¹³

Recent work in feminist musicology questions the basis of values in musical communities using insights about the relationships between power and knowledge derived from the

¹² An approach to working with recorded sounds developed by Pierre Schaeffer in Paris shortly after WW II. Later work by this studio became known as acousmatic music.

¹³ An approach developed by composers working at the Cologne studio in the early 1950s, using electrically-produced sounds composed according to the serial method.

work of feminist epistemologists, including the analysis of such gendered dichotomies as the culture-nature and abstract-concrete pairs, and their relationship to canonical issues.¹⁴ This dissertation extends those insights to a consideration of the epistemological bases of musical values in the field of electroacoustic music, specifically focusing on the position of soundscape composition in relation to the electroacoustic canon. My emphasis in this chapter on the writings and musical works of several important composers in the field facilitates a discussion of their particular approaches, and of how they reflect, express, and contest these epistemological roots through their work.

Westerkamp has developed a way of working in which she constantly questions her own position as composer, recordist, presenter, and listener. Her Master of Arts in Communications at Simon Fraser University was a critical examination of her own life history as it shaped her musical experience, as was the performance piece *Breathing Room 3*, written in 1991. Chapter Four is a biography that takes these works as a starting point, then continues to the present day, documenting Westerkamp's life and work, and showing how her various roles as composer, radio artist, educator, acoustic ecology activist and mother have intersected in her work. Many of Westerkamp's earlier pieces were composed specifically for radio, produced as a program series called "Soundwalking" on Vancouver Cooperative Radio in 1978-79, based on the soundscapes of various places in the Vancouver area, heard as she walked through and recorded them. She later took part in the "Radio Rethink" project at the Banff Centre for the Arts. The pieces that she created for these projects ride the borders between narrative documentary and musical discourse, between broadcasting and listening.

¹⁴ See for instance Citron (1993) for a discussion of the construction of generic norms in Western art music; McClary (1991) for a brief discussion of the norms of electroacoustic music in relation to the work of performance artist Laurie Anderson.

In her teaching at Simon Fraser University, Westerkamp has encouraged students to think of the filtering and sound processing capabilities of their own bodies, and their bodily relationships with technology and with the sound environment. Her work as a founding member of the World Forum for Acoustic Ecology has combined editorial and educational roles with composition and research. Most recently, she has led workshops in Vancouver, India, Japan and Brazil that integrate education and acoustic research with group and individual composition by local and international composers. A discussion of her life and work therefore contributes to thinking about music technology, education and acoustic research as well as contemporary composition, suggesting an approach which integrates these disciplines rather than delineating them.

In Chapter Five I discuss the analytical methods that I use to approach Westerkamp's work. Electroacoustic music has defied traditional methods of analysis that rely on scores, because they rarely exist in this genre. My approach brings together critical and feminist theory with James Tenney's gestalt approach to musical analysis, and a wide range of listener responses, to discuss the music in context. While work with listener responses is fairly well developed in the analysis of popular music and in ethnomusicological projects, it has not received as much attention in the analysis of contemporary Western concert works. There are very few analytical projects in electroacoustic music that refer to listener responses, and those that do exist tend to cite responses *en masse*, without specific quotes or discussion of the relative authority of different listeners. My project contributes to reception studies in its focus on bringing the responses of listeners from varied listening backgrounds directly into the discussion of the music, as well as considering relationships between these responses and the gestalt perceptual principles elaborated in Tenney's work. This provides the means to discuss sonic, musical, social, and political issues that arise in the works. While Westerkamp is

interested in conveying a sense of place, each listener constructs a different place¹⁵ depending on their own experiences and memories. My method of analysis explores relationships among the perceptions and attitudes of listeners, those of the researcher, and those of the composer.

I chose five works for analysis. *Kits Beach Soundwalk* is related to Westerkamp's important work as a radio artist at Vancouver Cooperative Radio. *Cricket Voice* reflects Westerkamp's ideas about wilderness and acoustic ecology. *Moments of Laughter* is an example of a piece for live performance and tape, demonstrating her approach to the performer, and to the relationship between performer and tape. It is also an exploration of the musical importance to her of children's voices. I chose *Breathing Room* because this short tape piece was intended to encapsulate her style. Finally, I focused on *Gently Penetrating Beneath the Sounding Surfaces of Another Place* as representative of her recent international work and her deep interest in the Indian soundscape.

In Chapter Six I discuss the importance of soundwalking to Westerkamp's association with acoustic ecology, to her early compositional formation, as well as to her work as a radio artist. *Kits Beach Soundwalk* is a concert piece that refers to Westerkamp's earlier *Soundwalking* radio series. In August of 1997, I did a soundwalk with Westerkamp, which took place in Queen Elizabeth Park, Vancouver, a location which is the subject of her first article on soundwalking (Westerkamp 1974). Westerkamp recorded the soundwalk, with both of us listening using headphones, while I photographed it. This resulted in a website about the soundwalk, which includes discussions of listening strategies, and the relationship of soundwalking to compositional practice. This is

¹⁵ I use the word 'place' here advisedly. Westerkamp says that she wants to transport her audience to a place when they listen.

currently online at <<http://www.finearts.yorku.ca/andra/soundwalk/>>, and a mirror of that site is included in the web portion of the CD ROM.¹⁶

I also produced an interactive multimedia installation based on this soundwalk.¹⁷ In this installation, I composed a number of short soundscape pieces from Westerkamp's initial recording, using a compositional style similar to hers. While I have worked in soundscape composition for some time, this particular experience was singular. I was working with Westerkamp's recording, and was influenced by our conversation about the place, while developing my own response to the soundwalk. The imagery associated with each musical piece was developed based on listening to the soundwalk, and using the theoretical bases of gestalt musical analysis. A description of the compositional process involved in the creation of this work is included in Appendix G. These two multimedia projects gave me a chance to engage further with the types of compositional processes that Westerkamp uses, exploring this connection between us, while noting differences in our approaches, such as my use of soundwalks as a more integral part of the compositional process, as well as my preference for multimedia and online projects as a mode of presentation.¹⁸

In Chapter Seven, I analyze *Cricket Voice*, a wilderness piece which has been included on two major electroacoustic anthologies. This is one of Westerkamp's more abstract works: it does not include any spoken words, or live performance elements. Because of its

¹⁶ I have expanded this soundwalk site to include more recent soundwalks that I have done at sound art festivals in Kitchener, Ontario, and Chicago, Illinois. The site was recently selected to be part of the Maid in Cyberspace Encore online exhibition curated by Studio XX in Montréal.

¹⁷ This resulted in a show at the Eleanor Winters Gallery at York University, a video installation at the Kitchen in New York City as part of the Music from Nature festival, and a show at the Modern Fuel Gallery in Kingston, Ontario.

¹⁸ I have published an article about these projects and the influence of Westerkamp on my compositional style: "Soundwalk in the Park with Hildegard Westerkamp," *Musicworks* 72, Fall 1998: 6-15, with music excerpts from the installation on the accompanying CD.

appearance on the anthologies, it was for many years one of her best-known works. It is based on the night song of a single cricket, recorded in the Mexican Zone of Silence, a desert area. It is a piece both about the cricket in the desert and about the urban person's experience of desert: as a spacious and sparse environment that provides respite from the crowded noise of the city, as an alien environment that may seem hostile, as a source of spiritual strength. A particularly interesting group of listener responses to this work imagined an alien species of giant crickets. I discuss these responses in relation to sound design in contemporary science fiction film, particularly the movie *Alien*. Unlike the majority of Canadian works that deal with the idea of wilderness, the environment of *Cricket Voice* is neither a Canadian wilderness nor a northern environment. At the end of this chapter, I compare Westerkamp's approach to *Cricket Voice* with Murray Schafer's *Princess of the Stars*, specifically in relation to ideas about northernness, authenticity, and technology.

Moments of Laughter, the subject of Chapter Eight, is a performance piece based on Westerkamp's musical relationship with her daughter. I performed this piece myself as part of the process of analyzing it. This piece raises really interesting questions about what different people hear as music, and how this is related to what they believe should remain private. *Moments of Laughter* transgresses the border between private and public, bringing the sonic relationship between a mother and child into a public place, the concert hall. It also raises many interesting questions about the shifting identities of mothers and children, and how these are voiced, how they become stereotypes.

Westerkamp based the piece on recordings of her daughter's voice from birth to seven years, recordings begun by Westerkamp and continued by her daughter once she was old enough to operate the recorder. She derived the title of the piece from the work of Julia Kristeva, who describes moments of laughter as the first times that a child recognizes others as distinct from herself: unlike theorists who describe this realization in terms of

existential angst, Kristeva argues that the child feels joy on realizing that another is willing to provide pleasure and relief. She further links this feeling of joy to creative urges:

Oral eroticism, the smile at the mother, and the first vocalizations are contemporaneous ...

The inaugural sublimation ... brings us not only to the foundations of narcissism ... but to the riant wellsprings of the imaginary. The imaginary takes over from childhood laughter: it is a joy without words. (1980: 283)

This quote indicates some of the transgressive issues raised by this piece: the association of oral eroticism with motherhood and mother-child vocalizations is one that is repressed in modern Western culture. The further association of early vocalizations with a wellspring of creativity, a laughing imaginary built upon joy *without* words recognizes an importance in the sounds of children rather than dismissing those sounds as "baby babble." The CD ROM includes excerpts of *Moments of Laughter* linked to images produced by adolescent girls as they listened to it, and score excerpts that indicate the relationship between tape part and performer.

In Chapter Nine, I analyze *Breathing Room*, a miniature intended to reflect Westerkamp's overall style, which she created for an anthology of short electroacoustic works.¹⁹ I interpret *Breathing Room* as a representation of a cyborg body, using Donna Haraway's image of the ironic cyborg, part organic and part cybernetic, an image which is "about the tension of holding incompatible things together because both or all are necessary and true" (1991: 149). Westerkamp's *Breathing Room* is structured around the breath: lying in the studio, she metaphorically breathes in a variety of recorded sounds—birds, water, insects, machines—impelled by a mechanical heart, sonically reflecting her ambivalent

¹⁹*Breathing Room*. "Électroclips." 1990. Montréal: empreintes DIGITALes. CD. DIFFUSION i MÉDIA. The producers asked each composer to create a piece under three minutes in length that encapsulated his or her musical style.

feelings about technology, maintaining throughout a tension between heart and breath that never resolves. On the CD ROM, an interactive movie based on my analysis of this piece allows the audience to read responses to various aspects of the work, grouped according to the issues raised, while listening to it. Another link leads to Westerkamp's score and my transcription of the piece, juxtaposed.

In Chapter Ten, I analyze *Gently Penetrating Beneath the Sounding Surfaces of Another Place*, which is representative of Westerkamp's current international work.²⁰ In recent years, Westerkamp has been invited to several international locations to lead soundscape workshops: in Japan, Brazil, Israel and India. She has visited India most frequently, and *Gently Penetrating...* as well as the *India Sound Journals* are based on her experiences of sound in New Delhi. In this work, she places herself in a position which is in some ways similar to, yet in other ways different from her position when she produced the *Soundwalking* series, years earlier: similar in that she is a newcomer to the culture, different in that she is not a resident of that culture, but a visitor. Her position of authority is different, too: she is invited to lead workshops in these places as an expert in soundscape composition, an insider to the soundscape at the same time as she is an outsider to the culture. I analyze this piece in relation to a recent presentation of Westerkamp's in which she considers this doubled position of the soundscape recordist, both inside and outside the soundscape. One of the responses to this work describes Westerkamp as being able to move fluidly between time, space and cultures. This evocative description led me to consider Westerkamp's work in this chapter in terms of Homi Bhabha's (1992) formulation of the "time-lag" as a liminal space that encourages re-location and cultural difference, and of Rosi Braidotti's (1994) concept of the figurative mode in the production of nomadic subjects. Westerkamp creates a liminal

²⁰ This is the same piece that is the basis of the "In the Studio" section of the CD ROM.

space by transforming sounds to evoke both the place represented as well as a range of other related places, encouraging the listener to listen to the place of recording and link it to memories of other places in their own experience. A section on the CD ROM called "In the Studio" includes an introduction to how Westerkamp created *Gently Penetrating*. This multimedia presentation includes imagery from the place represented in the composition as well as computer score fragments linked to sound files, accompanied by Westerkamp's comments about her use of each file in the resulting composition, and its relationship to the context of the sound environment.

In the conclusions, Chapter Eleven, I consider in what ways this dissertation works as a situated conversation, between composer, researcher, and listeners, and in what ways the conversation has hardly begun. Part of this discussion will focus on *how* I am presenting this dialogue, the means I have chosen. I was drawn to a hybrid form, part text and part hyper-text, using the CD ROM format, because of its ability to present images and sound with text, and because of its potential for intersubjective interactivity. While computer technologies are well known for their ability to create completely imaginary, competitive virtual environments such as video games, they are also becoming known for their function as social arenas encouraging communication over distance and interaction that goes beyond the mouse-click to engage "conscious agencies in conversation, playfully and spontaneously developing a mutual discourse."²¹ Current research in what Rosi Braidotti²² calls "cyberfeminism" suggests some approaches used by feminists to construct virtual environments that are situated and intersubjective. These range from

²¹ Allucquère, Rosanne Stone. "Sex, Death and Machinery Or How I Fell In Love With My Prosthesis." *The War of Desire and Technology at the Close of the Mechanical Age*. Cambridge, Mass: MIT Press, 1995: 11.

²² Braidotti, Rosi. "Cyberfeminism with a difference."
http://www.let.ruu.nl/somwnes_studies/rosi/cyberfem.htm. Accessed February 7, 1997, 5:25 pm. Last modified: July 3, 1996.

new approaches to video games,²³ multimedia performance,²⁴ and interactions through the internet,²⁵ which attempt to encourage intersubjectivity through the format of the presentation as well as connections to places and conversations with people beyond the confines of the computer.

The CD ROM format gives people access to materials such as colour imagery and music that are not usually available in a written dissertation, as well as scores, music analysis, bibliography, discography, footnotes and so on, with choices about how these are presented. In my website, I employ hypertext links to related academic and artistic internet sites, for up-to-date information and connections to organizations such as the World Forum for Acoustic Ecology. Visitors to the site are invited to converse with me through email links on the site. At the same time, I have often chosen to use more traditional forms of writing in order to pay attention to practical concerns (wanting to read sometimes away from a computer screen, for instance). The conclusions will consider interactivity in the hybrid form of the dissertation, in the developing relationship between Westerkamp and myself, and in the listener responses.

²³ See, for instance, Sanders, Toby. "Boys and Girls Take to Oregon Trail II." Global Navigator Inc. <http://gnn.com/gnn/meta/edu/features/archive/ot2.html>. Accessed March 7, 1996; Koch, Melissa. "Education Center: No Girls Allowed!" Global Navigator Inc. <http://www.gnn.com/gnn/meta/edu/features/archive/gtech.html>. Accessed March 14, 1996; Favre, Gregory. "Logged On or Left Out? Women and Computers: A Sacramento Bee special report." The Sacramento Bee online. <http://www.nando.net/sacbee/women/> Accessed March 14, 1996; Cassell, Justine. Personal homepage: "Justine Cassell." <http://justine.www.media.mit.edu/people/justine/>. Accessed March 7, 1996.

²⁴ Recent multimedia performances by myself and Selena Cryderman define interactivity not merely by the inclusion of mouse-clicks but by mutual discourse between the performers. See for instance <http://www.finearts.yorku.ca/selena/sonic.html>. Also, see the discussion of interactivity in Allucquère 1995: 10ff.

²⁵ Keng Chua. "Gender and the Web." AusWeb '95. <http://www.scu.edu.au/ausweb95/papers/sociology/chua/>. Accessed March 6, 1996; Lawley, Elizabeth Jane. "Computers and the Communication of Gender." 1995. <http://www.itcs.com/elawley/gender.html>. Accessed March 6, 1996.

Chapter Two

Musical Place in Canada

I hear the soundscape as a language with which places express themselves ...

I like to position the microphone very close to the tiny, quiet and complex sounds of nature, then amplify and highlight them ... Perhaps in that way these natural sounds can be understood as occupying an important place in the soundscape.

I like walking the edge between the real sound and the processed sound. On the one hand I want the listener to recognize the source, and thus want to establish a sense of place. But on the other hand I am also fascinated with the processing of sound in the studio and making its source essentially unrecognizable. This allows me as a composer to explore the sound's musical/acoustic potential in depth. But I abstract an original sound only to a certain degree and am not actually interested in blurring its original clarity...

Hildegard Westerkamp, liner notes to *Transformations*. Montréal: DIFFUSION i MÉDIA, 1996: 19-20.

In these excerpts from the liner notes to her 1996 CD, Hildegard Westerkamp describes some of her concerns regarding issues of place in her music. She describes the sounds of a place as its language, acknowledging the active voices of places, expressing themselves rather than being given voice by a composer. She wants to highlight the voices from those places that we do not usually hear, privileging the small, quiet and complex sounds that are lost in noisy soundscapes. She writes about the relationship between the place of the original recording and the place created in the composition, and acknowledges her fascination with sound processing and transformation. She describes her search for a balance between studio transformation and the original clarity of a recorded sound.

These are unusual issues for a contemporary concert music composer to explore in relation to her work. Part of the difficulty in even approaching the significance of these questions from a theoretical standpoint is that unlike visual art, where forms which concern place such as landscape painting have been accepted for centuries, place has been considered an issue peripheral to music, or extra-musical, until recently. In order to provide a context for my extended discussion in later chapters of Westerkamp's compositions and concerns about place, I will consider several initial questions: why is it

that place has been considered peripheral to music--particularly concert music? How and to what extent have Canadian concert composers referred to place in their music? What is the relationship between music that refers to a symbolically defined place such as a nation or an imagined, idealized wilderness and music that refers to a specific locale? How does Westerkamp's approach compare with those of other contemporary Canadian composers?

Place as Peripheral to Concert Music

Western art music has often been construed as one of the most abstract arts, and is conventionally defined as different from popular or folk music in its very placelessness:

The labeling of music as "classical" as opposed to "popular" ... has worked in part through a value system based on a geographical categorization, with classical music in conventional accounts contributing to the development of a progressive, abstract Western high culture—universal, self-justifying, ostensibly place-*less*—and popular music marked down as a "merely" local form, appealing to everyday emotions and particular circumstances and making no contribution to an autonomous realm of musical language. (Leyshon, Matless and Revill 1998: 5).

Within concert music, the labels "absolute" and "programmatic" categorize the genre further. Music that is most abstract, that refers only to itself, is considered most prestigious:

Of all the sacrosanct preserves of art music today, the most prestigious, the most carefully protected is a domain known as "Absolute Music": music purported to operate on the basis of pure configurations untainted by words, stories or even affect. (McClary 1993: 326)

Program music, which refers to the world outside the musical piece through the use of a program note or descriptive title, is less prestigious than absolute music, which is considered to refer only to itself. References to the natural environment are traditionally considered programmatic. Susan Bradley notes that environmental references in the works of R. Murray Schafer are generally considered to be "extra-musical" references by

most authors who have discussed his work: thus, even though he may refer to the rhythmic structure of wave motion to create the work called *String Quartet #2 (Waves)* (1976) this rhythmic structure is only considered musical when it is in this piece, not in the rhythm of the waves themselves (1983: 1-3). Bradley also notes that the use of extra-musical references can lessen the prestige of a work, since absolute music is viewed as purer and nobler than programmatic work (1983: 14). At the same time, Schafer's work is well-known, and has won many awards, gaining international prestige. Perhaps this is because of his mythological approach, which I will discuss later in this chapter.

The dichotomous division of absolute and program music is also related to current discussions about space in contemporary concert music, and the relative paucity of musicological discussions about musical place.²⁶ Robert Morgan says that although Schopenhauer described music as being perceived solely in terms of time, spatial metaphors abound in discourse about music:

... anyone familiar with the philosophical and theoretical literature dealing with music must be struck by the persistence with which spatial

²⁶ Many articles have been written in ethnomusicology and popular music about place. Some recent examples in popular music are Tony Mitchell, *Popular Music and Local Identity: Rock, Pop, and Rap in Europe and Oceania*. London: Leicester University Press, 1996; Charles Hamm, *Putting Popular Music in its Place*. Cambridge, New York: Cambridge University Press, 1995; Mel van Elteren, *Imagining America: Dutch Youth and Its Sense of Place*. Tilburg, Netherlands: Tilburg University Press, 1994; Lipstiz, George, *Dangerous Crossroads: Popular Music, Postmodernism and the Poetics of Place*. London: Verso, 1994, and Cohen, Sara. *Rock Culture in Liverpool: Popular Music in the Making*. Oxford: Clarendon, 1991. Recent examples in ethnomusicology include Ruth Glasser, *My Music is My Flag: Puerto Rican Musicians and their New York communities, 1917-1940*. Berkeley: University of California Press, 1995; Stokes, Martin, editor. *Ethnicity, Identity and Music: The Musical Construction of Place*. Oxford: Berg, 1994; John Lehr, "As Canadian As Possible ... Under the Circumstances: Regional Myths, Images of Place and National Identity in Canadian Country Music, In *Canadian Music: Issues of Hegemony and Identity*, edited by Beverley Diamond and Robert Witmer. Toronto: Canadian Scholars' Press, 1994. I should note, however, that most of these articles deal with social place, being concerned primarily with the identities of musicians and their audiences. Few deal with the sonic characteristics of these places themselves, but more with the human actors in those places. One ethnomusicological text which does consider the sounds of places and their relationship to the music produced by people is Feld, S. (1990). *Sound and Sentiment: Birds, Weeping, Poetics and Song in Kaluli Expression*. Philadelphia, University of Pennsylvania Press. Also, the more recent *Senses of Place*, edited by Feld and anthropologist Keith Basso (1996), has some further discussion of the Kaluli, as well as several other studies. Later in this chapter, I include a discussion of an article from this anthology by philosopher Edward Casey.

terminology and categories appear. Indeed, it would seem to be impossible to talk about music at all without invoking spatial notions of one kind or another (1980: 527).

However, as Susan McClary points out, Morgan does not discuss specific places:

Except for a brief aside in which he mentions pieces that deliberately exploit spatial arrangements within performance sites, Morgan's comments address only the metaphorical space within compositions: qualities of high and low, of relative distance, of surface and background (McClary 1991: 136).

This discussion of metaphorical musical spaces within compositions keeps the discussion securely within the framework of "the music itself." Another example of the musical discussion of place is Trevor Wishart's "Sound Symbols and Landscapes" (1986), which concerns electroacoustic music. Here, Wishart discusses the symbolic meanings of sounds in the creation of mythic landscapes. Although he mentions the overall properties of recorded environmental sounds in terms of generalized moor lands, valleys, and forests, he does not discuss places as particular, historically specific, local and multiple. His symbolic moor lands can stand for particular emotions or thoughts, but cannot stand for themselves—we are not intended to hear the sonic differences between one moor land and another, or a moor on different days, instead they represent particular feelings or ideas.

In Wishart's work, the composer's manipulation of the properties of a place are the focus of interest. This is also evident in a recent article by Denise Cooney on American composer Charles Ives. Her approach is unusual in that it focuses on how specific places are reflected in his compositional work. Although Ives wrote several pieces that refer to specific places, in other recent literature on Ives, the discussion of place in relation to his pieces is less detailed. For instance, Mark Tucker's "Of Men and Mountains: Ives in the Adirondacks" (1996) is primarily about Ives's use of the Adirondacks region as a place to do compositional work, and less directly about how this place *affected* his compositions.

Tucker does occasionally mention how listening to this place inspired Ives's approach in particular pieces. For instance, Tucker says: "He was fascinated by hearing sounds from a distance and sought to recreate the effect in *An Autumn Landscape from Pine Mountain*" (1996: 172). However, he does not elaborate on this insight—these brief mentions do not extend to detailed discussions of works. Denise Cooney discusses Ives's use of the "musical memorializations of places to get at ideas that were especially important to him" (1996: 276). She describes the musical, social, historical and political roots of Ives's *Putnam's Camp*, in an article which integrates a fairly traditional musical analysis with historical and biographical information, and poetry related to the theme. Even here, though, the place itself is represented as passive, "sonified" by Ives. Cooney explains her use of the word "sonification" as the descriptions of "aural manifestations of otherwise *nonsounding* phenomena--objects and places" (1996: 304, my emphasis).

More particular accounts of place in concert music can be found in a relatively recent publication, *The Place of Music* (Leyshon, Matless, and Revill, 1997).²⁷ Revill's discussion of Samuel Coleridge-Taylor considers questions of social, political and physical place in Edwardian London and the United States, while Robert Stradling discusses English concert composers such as Vaughan Williams, who "worked up their pastoral Englishness through sensibilities of the particular" (1997: 9). The discussion of the physical and imaginal influence of place in the composition of concert music is an issue which is beginning to receive more specific attention through publications such as this.

Canadian music and nationalism

²⁷ This interdisciplinary volume also includes chapters on radio, rap, soul, punk and road songs, as well as discussions of the relationships between musical genres in specific locales.

Nationalist music invokes an imagined place through symbolic constructs, thus retaining a measure of authority and universality while referring to an imagined, mythological construct of a country. Leyshon et al. note with reference to nationalist music composed in the nineteenth century that "such music combined a belief in the sovereign authority of the composer and the universality of musical forms with a faith in music's power to refer directly to everyday experience" (1997: 8).

Nationalist music attempts to synthesize an image of the country as a whole, creating an imagined community through sound. Current literature on nationalism often refers to Benedict Anderson's description of nations as imagined communities built, not from actual shared ancestry, but from what author William Gibson might refer to as a "consensual hallucination,"²⁸ a kind of shared dream of the nation. This is perhaps particularly obvious in a country such as Canada, whose written history is fairly short, where the geography is vast and diverse and where so many of us are immigrants. Anderson says that language, especially poetry and song, is particularly effective in expressing community. When people sing a national anthem, they feel a sense of simultaneity, what Anderson refers to as "unisonance" or "the echoed physical realization" of the imagined community (1983: 145). He points out that anyone can be invited to join this chorus: the process of naturalization allows nations to be joined not necessarily by shared bloodlines but by language, ritual and song.

In the Canadian national anthem, our home and native land is described as the true north strong and free. Is this [strong true free] northernness the defining image of Canada,²⁹ the

²⁸When Gibson used this phrase, he was referring to the online community, another imagined whole built of many parts. Gibson is the author of several 'near-future' science fiction works, including *Neuromancer* (1984).

²⁹I am particularly aware of the power of this image of Nordicity; have been, and continue to be complicit in its maintenance: I lived for several years in the Yukon, several months in the Northwest Territories (including four months inside the Arctic circle at Tuktoyaktuk) and at another point built and lived in a log

metonymic characteristic that shapes the imagined whole? Are we defining ourselves as northern against our southern neighbours, particularly the big one just below? Do we see ourselves as strong and free northerners? Do others?

Canadian identity is often defined in contrast to its southern neighbour the United States, which is economically and culturally one of the most powerful nations in the world. James Fernandez, in his discussion of the region of Andalusia in Spain, notes that Spain is seen as a southern country, particularly by the tourist industry (1988: 22). This means that the country is defined by its southern areas, and northern areas are ignored or marginalized. In the same way, countries perceived as northern (such as Canada) are defined by other countries as only northern, particularly by their southern neighbours. The image of Canada as a northern hinterland was promulgated by Hollywood for many years. Between 1907 and 1975, Hollywood made 575 movies specifically set (although not usually filmed) in Canada.³⁰ Pierre Berton writes:

If foreigners think of this country as a land of snowswept forests and mountains, devoid of large cities and peopled by happy-go-lucky French-Canadians, wicked half-breeds, wild trappers and loggers, savage Indians, and, above all, grim-jawed Mounties—that's because Hollywood has pictured us that way (1975: frontispiece)

Berton claims that these stereotyped depictions of Canada have buried Canadian national identity under a "celluloid mountain of misconceptions" (1975: 12), blurring and distorting it so that many Canadians believe that we have no national identity. Current cultural theorists³¹ would argue that there is no essential national identity to be

house beyond the power lines in Ontario. At several points during all of these experiences I was propelled by and often revelled in Northern mythologies, seeing myself variously as escapist, exile, earth mother, ecologist and intrepid explorer.

³⁰ Now we have the opposite: many movies are currently filmed in Canada with the sets altered to place the movie in the United States.

³¹ See for instance Anderson 1983; Hobsbawm and Ranger, 1985; Davey, 1986; Handler, 1988; Rosaldo, 1988; Bhabha, 1990, 1994; Connor, 1992; Zukin, 1993; Wernick, 1993.

uncovered. Identity is complex, and in a contemporary world with massive dislocation, relocation of borders, immigration, and mass communication, the concept of an essential and true national identity is impossible. Reid Gilbert writes:

repetitive images of isolation, harsh weather, and deprivation have formed recurrent motifs in Canadian novels, plays, and films. But these themes have also dominated much western literature, and [Northrop] Frye ... noted that Canadian poets had begun, by the 1960s, 'to write in a world which is post-Canadian.' (1993: 181)

As I will discuss later, internationalism and the denial of a specifically Canadian identity became important themes in some contemporary Canadian composers' attitudes towards national identity. At the same time, to the extent that a desire exists among some artists to create, maintain and question imagined Canadian identities, it is both difficult and important to discuss 'outside' representations of Canadian culture while simultaneously thinking about what images of Canada are being created by Canadian artists.

The position of Canada as the northern neighbour of an economically and militarily powerful nation challenges some received anthropological notions of north-south relations. In his reading of Campbell and Levine's 1968 *Ethnocentrism*, Fernandez says that southerners see northerners as physically strong, energetic, pessimistic, slow and heavy, stupid, and rough and dirty.³² All of these qualities might be seen in the Hollywood movies described by Berton. Yet Fernandez also says that southerners perceive northerners as powerful militarily and economically. This would not be likely in American perceptions of Canada. The economic power of the United States and the proximity of its television and radio transmitters flood the Canadian market with American cultural products, and lead to an ambivalent attitude towards the United States: Canadians often define themselves, Manning (1993: 3) says, in a position of reversible

³² For the full list of qualities, see Appendix A.

resistance to American identity (sometimes in opposition to American identity, sometimes in resistance to this opposition, both not American and not not-American).

Many Canadian cultural theorists have written about Canadian identity in terms of a difficult relationship with the United States and one with the northern hinterlands.

Andrew Wernick writes that these depictions are romantically tinged:

What has particularly bedevilled that search [for a national identity], from George Grant's *Lament for a Nation* (1965) to Gaile McGregor's *The Wacousta Syndrome* (1985) is that "the" Canadian difference has tended to be defined in terms of quasi-logical contrarities vis-à-vis the United States.... Especially tenacious has been a romantically tinged dichotomy that counterposes America as a symbol for city, industry and automobile to Canada as a figure for escape and the untamed land. More subtle is the nationally divergent approach to Nature depicted by Northrop Frye (*The Bush Garden*, 1971) and Gaile McGregor. On this reading, the American myth of wilderness is anthropocentric and paradisiacal—Nature as cooked—whereas the Canadian myth is defensive and agonic—Nature as raw. (1993: 297)

In *The Bush Garden*, Northrop Frye depicts Canada as a long ribbon stretching east to west, in which Canadian national identity, to remain established, must be perceived in an east-west direction, because to look north or south is to be overwhelmed:

The essential element in the national sense of unity is the east-west feeling ... The tension between this political sense of unity and the imaginative sense of locality is the sense of whatever the word "Canadian" means ...The imaginative Canadian stance, so to speak, facing east and west, has on one side one of the most powerful nations in the world; on the other there is the vast hinterland of the north, with its sense of mystery and fear of the unknown, and the curious guilt feelings that its uninhabited loneliness seems to inspire ... If the Canadian faces south, he becomes either hypnotized or repelled by the United States ... If we face north, much the same result evidently occurs. (1971: iii-iv)

Unity, for Frye, is east-west, whereas imaginative identity is north-south, and is therefore regional rather than national, conceived of as longitudinal slices of Canada. He discusses two different tendencies in Canadian life, which he refers to as romantic-exploratory and

reflective-pastoral. He links these tendencies with the two directions (east-west and north-south), and ultimately with nationalism or unity, and regionalism, or identity:

an alternating rhythm in Canadian life between opposed tendencies, one romantic, exploratory and idealistic, the other reflective, observant and pastoral. These are aspects of the tension of unity and identity already mentioned. The former is emotionally linked to Confederation and Canadianism; the latter is more regional and more inclined to think of the country as a series of longitudinal sections." (1971: vi)

Frye sees Canadian cultural identity as fundamentally concerned with the natural environment (1971: 247). Writing of the romantic tendency, he refers to the landscape work of the Group of Seven and of Emily Carr, describing this work as concerned with linear distance, nobility, and a love of exploration:

The sense of probing into the distance, of fixing the eyes on the skyline, is something that Canadian sensibility has inherited from the *voyageurs*. It comes into Canadian painting a good deal, in Thomson whose focus is so often farthest back in the picture ... It would be interesting to know how many Canadian novels associate nobility of character with a faraway look, or base their perorations on a long-range perspective. (1971: 222-223)

The pastoral myth, Frye says, is associated with childhood, or with social conditions such as small-town life, and a sense of kinship with the animal and vegetable world. He claims that it evokes nostalgia for the past, or a peaceful and protected world in which rapport with nature is symbolized through the use of Native characters (1971: 238-240).

This construction of nationalism as exploratory and latitudinal against a regionalism that is pastoral and longitudinal seems to conceal too much. Regions are not just provinces, and to proceed north (in a longitudinal segment) seems hardly pastoral. And neither of his two tendencies include an urban myth—the pastoral myth is concerned with small towns, not big cities. Nevertheless, mythologies related to his two axes are firmly rooted in Canadian culture. The image, for instance, of painters in the Group of Seven as romantic

nationalist explorers is particularly strong.³³ Joyce Zemans (1995: 15) notes that Tom Thomson, in particular, was depicted both as a genius and as a Canadian folk hero. In 1929, in his selection of pieces for the National Gallery Canadian Artists series of reproductions, art critic Arthur Lismer discussed a similar dichotomy to that developed later by Frye, referring to pastoral and exploratory ideals. Lismer, however, associated the pastoral ideal with artists from Québec, and once again the romantic-exploratory ideal is associated with the Group of Seven:

Lismer's narrative contrasts the traditional approach of Québec artists and their portrayal of the pastoral ideal with the powerful quest for identity in modern English-Canadian art, where the moral order of nature and the mythic notion of the heroic wilderness shaped the new Canadian icon ... That the goal was to construct a coherent history and an autonomous identity through the aesthetic construct of the landscape is clear from the selection of work and Lismer's companion study guides. Thomson and the Group of Seven were presented as the culmination of that tradition and the texts are permeated by the notion of Thomson, "the first Canadian painter to capture the real spirit of the north country." (Zemans 1995: 17)

The exploratory-pastoral dichotomy can also be seen as related to traditional constructions of space and place. Yi Ti Fuan says "Place is security, space is freedom: we are attached to the one and long for the other" (1977: 3). In order to really know a place, we have to develop an intimate connection with it, whereas space (whether wilderness or outer space, the latest "last frontier") is connected with what is not yet known, wide and open.³⁴ The concept of place has often been linked to what is civilized, secure and restrictive, and space to the uncharted, dangerous and exciting wilderness.³⁵

³³ See for instance Joan Murray *Best of the Group of Seven*. Edmonton: Hurtig. 1984: 7.

³⁴ This dichotomy between space and place is often gendered. For instance, in the science fiction TV series *Star Trek*, the Enterprise space mission is "to boldly go where no one has gone before." In the first series, almost thirty years ago it was "to boldly go where no *man* has gone before." It was de-sexed for *The Next Generation* series in the 1980s. The most recent series, *Star Trek Voyager*, has the first female captain. The captain of the *Voyager*, Kathryn Janeway, is the first captain who does not speak the words "to boldly go..." at the beginning of the show. In fact, her mission is to get her crew home safely. She also constantly refers to the crew as her family, maintaining a reassuring air of domesticity, even in the Delta Quadrant.

³⁵ See also McGregor (1985), a work that I discuss later in this chapter.

Yi Ti Fuan deconstructs these stereotyped notions of space and place, pointing out that Paul Tillich discusses cities or "civilized" places as wide and spacious like the sea (1977: 4). Margaret Rodman notes that the simple association of place with containment is inaccurate: "Places are not inert containers. They are politicized, culturally relative, historically specific, local and multiple constructions." (1992: 641). In order to understand the politics, cultures and stories of specific places, it is necessary to let go of the romantic tendencies to associate one place with civilization and another with wilderness, to pay attention to the multiple stories that exist in each place. These recent reconstructions of place and space contest the simplistic formulations that associate space (and wilderness) with exploration and danger, place (and civilization) with security and restriction.

The image of known places as secure (and predictable) and unknown spaces as dangerous (and exciting) can lead to a feeling of entrapment in the known, as well as fear of the unknown. Gaile McGregor, in her extensive discussion of Canadian art and literature (but not music), claims that imagery in Canadian culture maintains a garrison mentality, with images of entrapment, isolation and vulnerability in the face of cruel Nature.³⁶ The wilderness, she says, is depicted as unknown and unknowable, and recognized by authors and artists only as a conduit to memory, rather than perceived for itself. She contrasts the Canadian northern frontier with the American western frontier, in which the (American) western frontier represents the limits of control or knowledge, and the (Canadian) northern frontier represents the limits of endurance, of what is humanly possible. The image of the fort is seen as a correlative for the "beleaguered human psyche attempting to preserve its integrity in the face of an alien encompassing nature" (1985: 5). Later, she connects the image of the fort with that of the small-town community as the Canadian

³⁶ See also Stan Brakhage "Space As Menace in Canadian Aesthetics." *Musicworks* 68 Summer 1997: 28-29.

social reference point, claiming that "confronting the problems of a northern frontier...[c]ooperative effort is the only way one can survive, let alone thrive" (1985: 426).

There is much in McGregor's analysis that rings true, on a pragmatic level: the northern frontier is likely to represent the limits of endurance because of its extremes of climate, and in a sparsely-populated country, of course the small-town community would become an important theme. Yet eighty percent of Canadians live in cities, urban centres primarily clustered within a few miles of the US border. McGregor's analysis, like Frye's, does not consider the urban reality, perhaps because it is too (geographically? culturally?) close to the United States. Once again, Canadian identity is misconstrued as either pastoral or wilderness, not also urban.

McGregor's depiction of the American western frontier as concerned with the limits of control contrasted with a Canadian northern frontier concerned with the limits of endurance also seems too simple to me. I think, for instance, of the recent Clint Eastwood film *The Unforgiven*, in which the reality of subsistence farming in early western American settlements is shown as an act of endurance in extreme conditions, where famine is always a possibility. Also, the *Rez* cycle by Canadian Native playwright, multimedia artist, and composer Tomson Highway represents northern Canadian native communities in terms of their social and political relations, their relationships to control by Canadian social realities as much as endurance of the physical environment.

I also question McGregor's depiction of Canadian landscape painting as necessarily expressing a fear of the unknown. In her description of the garrison mentality, she describes the perspective of many paintings done by the Group of Seven as foreshortened and shallow, expressing a fear of the wilderness:

Ardently pro-nature in their articulated stance, these artists yet produced collectively a version of the Canadian landscape which, at least in the view of many of their contemporaries, was at best harsh and somewhat disturbing, and at worst evoked the quality of nightmare. (1985: 54).

This analysis of the work is in direct contrast to Northrop Frye's, who saw the work of the Group of Seven as exploratory with an eye on the distant horizon, as I noted earlier. A recent interesting addition to this dialogue is a new article by Stan Brakhage, based on his view of work by the Group of Seven in 1988. Brakhage describes the Group's work as like a seine, netting the landscape. This would allow a far-off perspective to be enclosed and captured (neutralized) within the netting of brush strokes (Brakhage 1997: 28). This interpretation represents the wilderness as a menace — but one that can be contained by the artist, enhancing his image as rugged explorer, capturing the wild.

McGregor's depiction of Canadian writers' and artists' work as representing a fear of the wilderness seems only to represent part of the story. For instance, her discussion of Emily Carr's work excludes some of Carr's experiences (1985: 58-59).³⁷ She only describes Carr's ambivalence toward the wilderness, ignoring Carr's writings that proclaim her acceptance of nature. She also neglects to mention that Carr lived in the wilderness for extended periods. Her description of Carr's later painting as "*un-creating the world* (1985: 58) because of its "writhing" forms can just as easily be interpreted as a rhythmic style celebrating the vitality and movement that Carr represented within a landscape that she perceived as living and breathing, with which she celebrated an intimate connection.³⁸

³⁷ I discuss Carr because her writings have influenced Hildegard Westerkamp in her approach to landscape. Westerkamp included readings from Carr's work in one of her *Soundwalking* radio shows. She has also influenced other Canadian composers, such as Wende Bartley, as I note in my analysis of Bartley's *A Silence Full of Sound* (McCartney 1994: 180-198).

³⁸ See for instance Maria Tippett's description of Carr's work: "Carr gave those who saw her paintings a new way of seeing the forest interior. Her intimate close-up view of the forest was soon mirrored in the work of her women contemporaries." (1992: 74-75)

While Nature may be depicted as uncharted space, cruel and unknowable in some Canadian cultural artifacts, this is by no means a universal or uncontested image. In fact, McGregor's work in particular has been severely criticized by some. In a review of her book in *Canadian Forum*, Frank Davey describes her writing as naive, positivist and subjective, as well as American in its fundamental assumptions about unitary identity (1986: 40). Paul Rutherford writes "I find her argument so exaggerated and convoluted as to be unbelievable" (1993: 274, fn. 80). Ian Angus, in his recent work about Canadian national identity and wilderness, does not even mention McGregor, and attributes the discussion of the garrison mentality—that was fundamental to her writing—solely to Northrop Frye: "The Canadian version [of the negation of an other for self-identity] is Frye's garrison mentality" (1997: 128). This passing over of her work seems too extreme to me. McGregor's wide-ranging exploration of the theme of wilderness as menacing in Canadian aesthetics seems worthy of consideration and criticism, rather than outright dismissal.

Perhaps part of this dismissal is to do with a shift in thinking in Canadian criticism. Donna Palmateer contends that current Canadian cultural criticism has shifted from a concern with place to that of voice. Writing in a 1997 publication (*New Contexts of Canadian Criticism*) about differences from an earlier publication (entitled simply *Contexts of Canadian Criticism*), she writes: "The question of 'where is here?' has been superseded by the question that Frye thought, at one point in his career, was less important, namely 'who am I?'" (1997: 203). Later, she notes that multiple answers had always been offered to both of those questions, but some of the answers haven't always been heard:

A significant contextual change between 1971 and 1996 is the telling, legitimation, and dissemination of different narratives... often precisely in relation to past constructions that have precluded or occluded those different stories. (1997: 208)

This inclusion of different voices contributes to an understanding of Canadian culture which is more complex and multi-faceted. Yet Palmateer's description of it points to a difficulty as well: it seems according to her account that, in cultural theory, the problem of voice has received more critical attention in recent years than the problem of place. As Rodman said about anthropological theory a few years earlier, advocating more attention to place, "it is time to recognize that places, like voices, are local and multiple" (1990: 641).

Southern Canadians as Northern "Outsiders"

One important point to consider about voice and place is the location of the writer in relation to the place described. Many depictions of Canada's northernness have been created by authors, artists, and musicians living in southern parts of the country, in the urban eighty percent, the region that Yukoners call "outside." Hamelin notes that southern visions of the North often see it as a hinterland to be exploited. This vision of the north as hinterland has several aspects: the pessimistic vision, which focuses on the problems of the north; the developmental vision, which concentrates on northern resources, and the romantic vision, which sees the north as untouchable and unknowable. He claims that "the North has not penetrated deeply into the comfortable society of southern Canada" (Hamelin 1979: 8), as southerners continue to depict it as a hinterland rather than understanding its specificities.

This lack of understanding of the North in southern Canada is perhaps because southern communities are ambivalent towards the image of North, wanting at once to claim that identity, yet also to appear civilized, as Jody Berland notes:

No doubt the need to invent themselves as a civilized (near) northern community explains why (English) Canada's artistic representations of landscape so rarely did justice to the nation's brutally sublime real winter weather. (1994: 29)

The image of the frontier, as McGregor (1985) points out, suggests the idea of a frontier of knowledge, and by extension culture. Thus, the further north one goes, the less cultured, less knowledgeable and more childlike the inhabitants are perceived by southerners, whether those southerners are Canadian, American or from elsewhere:

Colonial representations within and about Canada have long been steeped in images of its weather that surround and account for mythic images of the 'Other' ... Just as the Inuit and other northern inhabitants have been viewed as childlike by whites because of their adaptation to snow, so Canadians have been represented as childlike and backward in comparison to Americans. (Berland 1994: 99)

Canadians have been able to redefine their relationship with southern neighbours somewhat through a *technological* (therefore perceived as technically skilled, and modern) adaptation to extremes of climate and distance:

Canadians pioneered the use of satellites to observe, map, and communicate with remote, frozen areas that were previously beyond the reach of geological science and/or electronic media. That experience not only provided a new technical and mythical infrastructure for nationhood, but also laid the foundation for Canada's secure niche in current space research. (Berland 1994: 30)

When Canadians are viewed as capable of surviving in remote Northern areas using technological means, they are then perceived as potential technological experts in the new wilderness of space. The image of Canada as able to explore northern wilderness through technological means is obvious in the words of the plaque that greeted visitors to the Great Hall of Canada Pavilion at Expo '86. Note the terminology similar to *Star Trek* in the last sentence ("to ... go where no one has gone before"), which is used to create a technological and mythical image of Canada's relationship to the north in terms of endurance and exploration:

Survival. Canada's multiple environments, its extreme northern climate, and [its] varied terrains test the endurance of the human body. Equipped with technology's skins, eyes, ears, hands, and feet, we go where we have never been before. (Ames 1993: 241)

Communications satellites allowed the broadcast of southern culture as well as local programming into the most northern parts of Canada. Patricia Kellogg documents how the extension of radio broadcasts to the Arctic can be perceived as an extension of civilization into the wilderness:

The term "wilderness" in the title of this article ["Sounds in the Wilderness"] reflects partly the immense territory over which the CBC must broadcast, sending out original Canadian classical music to such remote outposts as Tuktoyaktuk in the Arctic and Batteau on the Labrador coast. But it also refers to the early void in Canada in the support of Canadian composers and in the performance of new Canadian works and the way in which the CBC moved to encourage creative endeavours that would broadcast original Canadian musical sounds into both the geographical and this particular cultural "wilderness." (1988: 241)

Here, Canadian classical music is seen as a civilizing influence in the Arctic. The word "void" is used to refer to the cultural wilderness that initially did not support Canadian composers. The broadcasting of "original Canadian musical sounds" into the geographic wilderness of the Canadian north implies that there was a void there also. Kellogg does not even mention the original musical sounds that were already present in the North including Native musical traditions, and this omission marks these musical traditions as part of the (silent) wilderness needing to be civilized.

The association of Canadian identity with northernness and wilderness is thus a vexed issue: Canadian composers who want to participate in the construction of a shared national identity are presented with the challenges of how to approach the strong mythology of northernness, seen variously as a garrison mentality, a reaction against the United States, a parochial regionalism, a romantic mythology, and a difficult relation to Native cultures.

A Distinctively Canadian Music

John Beckwith reports that nationalist music only became somewhat acceptable in Canada after 1950 (1992: 6). Jody Berland, among others, traces an increase in nationalism in the arts to the influence of the report of the Massey Commission,³⁹ which was published in 1951:

For the Commissioners, the danger to sovereignty flowed from the commercial mass media; therefore the route to national defence was to elaborate and disseminate the European tradition. Their Report and ensuing policies encouraged artists to direct their work to preserving European cultural traditions or the new, apparently uninflected languages of modern art. (Berland 1997: 17)

This mandate of the arts was quite paradoxical: they were to create a distinctive Canadian identity, untouched by the (American) mass media, by appealing to European traditions or to the aesthetics of modernism (which by the 1950s for English Canada was increasingly centred in the United States, while for Québécois artists, it was centred in Paris).⁴⁰ How did this paradox manifest itself in the thought and work of contemporary composers? One answer can be found in the Anthology of Canadian Music, produced in the 1980s by the CBC.⁴¹

When the CBC conducted a number of recorded interviews in the 1980s with Canadian composers of concert music, in most cases the interviewers asked the composers about whether they believed that there is such a thing as a distinctively Canadian music. Their

³⁹ The official name is the Royal Commission on National Development in the Arts, Letters and Sciences. It was headed by Vincent Massey, hence the more common name. The entire Massey Commission report is now online at <<http://www.nlc-bnc.ca/massey/rpt/etable.htm>>.

⁴⁰ "While the majority of Quebec-based artists working in the non-representational mode took their ideas from Europe, and especially from Paris, women in other parts of the country were more likely to derive their modernist styles from the United States" (Tippett 1992: 127).

⁴¹ I realize that this is thirty years after the Massey report publication. I am interested in this particular anthology, because the CBC seemed particularly interested in composers' responses to questions about Canadian identity. Also, it is a set of interviews, which provides access to composers' thoughts in conversation with the interviewer, providing more depth and less mediation than shorter quotes in publications.

responses to this question provide a sampling of the attitudes of contemporary Canadian concert composers in the late 1970s and 1980s to the idea of a music that refers to Canada as a place, as an imagined community.

Many composers respond that there could — or should — be no such thing as a distinctively Canadian music. Serge Garant (1929-1986) simply ignores the interviewer's question altogether. Asked whether he situates himself as a Québécois, North American or Canadian composer, he does not answer, but instead talks about the importance of structuralism. Kelsey Jones (b. 1922) sees national identity as regressive: "I don't believe that there's any such thing; I think that this concept of a Canadian or American or British music ... is a ... carry-over from the nineteenth century where composers consciously used folk music to give their music an identity with its country⁴² ... Music is either good or it's bad" (ACM 24, 1986).⁴³ George Fiala (b. 1922) replies that the question leaves him cold, and suggests that the label 'Canadian composer' should not be used, perceiving national identity as evidence of cultural immaturity: "the degree of immaturity of a given musical culture could be best measured by the intensity of its participants to define at any cost their own creative identity" (ACM 27, 1987). Gilles Tremblay (b. 1932) also sees the search for national identity as a type of lack defined somehow against real value in music: "To go on about Québécois ... could be a form of capitulation or a very large sign of spiritual poverty ... instead, be competent" (ACM 12, 1982). These comments reveal not only a lack of desire to create distinctively Canadian music, but also a feeling

⁴² Ian McKay, in Chapter One of *The Quest of the Folk* (1994), discusses the influence of the idea of the folk on nationalism, tracing the development of this idea as a reaction against the urbanization and industrialization of modernism. Folk arts were represented as more authentic, more natural and closer to the national essence but also less complex and developed than high art.

⁴³ ACM refers to *Anthology of Canadian Music*. Montréal: Radio Canada International, 1978ff. Boxed record sets with liner notes and recorded interviews. French translations appear for the recorded interviews of anglophone composers, and English translations for the francophone composers. Written transcriptions are not included for the language actually spoken on the record.

that to do so would be to evade universal standards of value, or somehow to give in to mediocrity.

Robert Turner's (b. 1920) comments reveal an ambivalent stance toward Canadian identity. Early in the interview, he speaks of a Canadian quality in some music, describing it as an "open landscape" (ACM 15, 1983). Later, in response to a direct question about Canadian identity, he says that nothing particularly Canadian exists in music, except through the use of poetic texts and so on, contradicting his earlier comment. The interviewer asks about the influence of landscape, suggesting that perhaps Canadian identity might be reflected in a sense of open space. Turner replies that this might have been so thirty to forty years ago, "but I think composers nowadays are interested in evolving a *universal* style or at least a *varied* style, each composer has his own way." The interviewer asks again about the effect of the environment, and Turner replies that he has always been an urban dweller, so the environment doesn't affect him, then concedes that his *Prairie Settler's Song* variations, based on a folk song written by Charles Davies in 1882, might reflect the cold, hard winters and the heat of summer. In Turner's thinking, nationalism is restrictive (neither universal nor varied enough), and the environment is "out there," not part of the urban dweller's experience, as if an urban space is not an environment. This radically separates nature from culture, city from environment, and nationalism from universality.

Other composers remark that there could not be a distinctively Canadian approach to composition *yet*, because in their opinion, Canada does not have a well established concert music community. This is similar to Kellogg's (1988) description of Canada as a cultural wilderness in the first stages of civilization. Alexander Brott (b. 1915) says that Canadian music lacks a continuity of development and tradition, therefore accepts the latest fashions from elsewhere. He adds that Canada cannot really be considered a nation,

but is more regional. He approves of Canadian content regulations, since they provide good encouragement for the development of a national identity in composition (ACM 20, 1985). Bruce Mather (b. 1939) reports that when he studied in France, it "was a much more civilized place than Toronto." When he was asked whether there is a style of music that is Canadian or peculiar to Quebec, Ontario, or North America, he answers that there are more differences than similarities, then adds that Canadian work is sometimes described internationally as "nice" or "pretty" (ACM 10, 1981). Jean Papineau-Couture (b. 1916), one of the co-founders of the Canadian League of Composers, states that he always attempted to include Canadian works in concerts, and met with opposition. He says that people believed "there can't be anything good here, we're too small a country, unimportant" (ACM 3, 1979). In these reports, Canadian musical identity is viewed as something that has not happened yet. Canada is perceived by some composers, and members of the public, as too young to have developed an identity, while music from various established European centres may be perceived as having a particular national identity. Canada is viewed by these people as a cultural frontier territory, uncivilized, but with future possibilities of civilization.

The influence of European musical identities on the Canadian identity is further affected by the immigration of European composers to Canada during the twentieth century. Renato Rosaldo (1988) describes immigrants to North America as bobbing and weaving between cultures in a movement that reminds me⁴⁴ of trapeze artists, swinging between the familiar pole of the original culture and the unfamiliarity of the new. This precarious position can be painful. Sophie Eckhardt-Grammaté's (1899-1974) first work on arrival in Canada was called *Four Christmas Songs*. The documentary of her life on the CBC anthology by Lorne Watson describes this as "inspired by the winter landscape, the

⁴⁴ also Arjun Appadurai (1988a: 19).

decorative outdoor Christmas lights and the challenge of beginning again in a new homeland" (ACM 21, 1985). Her biography, written by her husband Ferdinand Eckhardt, is more poignant in its description of the impetus for this work: "written, I believe, out of a feeling of loneliness and homesickness" (1985: 122). Eckhardt-Grammaté's reference to the northern winter landscape through the use of a Christmas motif creates an image of loneliness and isolation from home roots in Europe.

Istvan Anhalt (b. 1919), in his CBC interview, remarks that in his early Canadian works, he was looking backwards, towards his home in Budapest, Hungary, which, he says, remains a strong influence on his work (ACM 22, 1985). At the same time, his position as a recent immigrant allowed him a listening post on Canadian work that may have eluded others who, living here all of their lives, did not have the same access to an outside perspective. Murray Schafer writes of a conversation with Anhalt:

Istvan Anhalt told me about how he first became aware of the Canadian style in music. When he arrived from Hungary he wanted to see the country, so he took a train from Halifax to Montreal. All day he travelled through the woods of New Brunswick, seeing nothing but trees. Here and there he passed a grubby clearing with perhaps a sawmill or a gas station and a few squat houses, then more trees. When he first heard the music of John Beckwith his mind connected back to that experience. Here were bars of repetitious ostinati followed by a sudden wild modulation, then the relentless repetitions again. The music and the forest were companies; they intensified one another. (1994: 225)

Anhalt's position as a newcomer allowed him to perceive relationships between the rhythms and harmonies of the Canadian landscape and those of Beckwith's music. He could perceive a Canadian style in distinction from his prior experience in Europe and in relation to the new and unfamiliar landscape.

Being in the position of an immigrant can affect a composer's way of working as well as their perception of a nation's music. In a 1993 interview with me, Hildegard Westerkamp

relates how being an immigrant affected her dialogic approach to field recording for her soundscape compositions, while at the same time her use of recording technology as a composer was a tool of access for her as a recent immigrant. Westerkamp's development of a receptive, dialogic approach to soundscape may thus be seen as directly affected by her knowledge gained in experiences in Canada as a recent immigrant working with music recording technology. She seemed to feel at once part of Canada while at the same time still a stranger, still flying the trapeze. The development of her ability to bridge two cultures through conversation may be part of the reason that her work often situates itself around and bridges borders, such as those between city and country, technology and nature, dream and reality, civilization and wilderness. I will discuss Westerkamp's identity as an immigrant, and how it relates to other parts of her experience, in the biography chapter.

The immigrant's identity of necessity includes a sense of displacement, one in which there is rarely any going back, and therefore a need to become part of the culture. Appadurai describes the location of the anthropologist prior to the 1980s in terms of displacement as well, the "voluntarily displaced anthropologist and the involuntarily localized 'other'" (1988: 16). In this relationship, the (privileged) ethnographer comes from an un-named location, usually as a short-term visitor, and the object of study, the Native, is localized in terms of a specific place, and perceived as always belonging to that location. In artistic representations of a place, a Native character is often used to represent the spirit of the environment, its sense of nobility or danger. Gail Valaskakis points out that these representations rarely do justice to the actual lives of Native people:

Drawn from the image of the savage as noble or evil, neither representation allows newcomers to identify native peoples as equal, to recognize them as 'real inhabitants of a land'. Like the companion myths of the frontier or the pioneer, these representations conceal the structured

subordination of Indians in a country carved out by companies and charters, proclamations and promises. (1993: 161)

Another concern of Valaskakis is the power of appropriated identity. "Who has the power, and who is given the opportunity, to speak in another's voice?" (1993: 165)

Speaking in another's voice can occur through the invention of a character from another culture, or more directly through the appropriation or utilization of their music. Just as the Native character can be stereotypically seen as localized and emblematic of Nature, traditional indigenous music can be perceived as linked to a specific place and hardly changing over time, in distinction from concert music, which in such accounts is perceived as responding and contributing to international innovation. While musicologist Willy Amtmann separates 'civilized' folk music from aboriginal music in his analysis, he clearly establishes a hierarchy in which aboriginal and then civilized folk music appear less advanced than church and concert music:

The claims to the origin of folk music are often tinged with romantic imagination and patriotic sentiment ... it is a well known and established fact that the "civilized folksong" — as distinct from aboriginal and primitive music — assimilated the highly advanced elements of church music as well as the superior resources of the educated élite ... [folk music is] greatly influenced by the gradual sinking of art music to the popular level. (1975: 166)

Composer Murray Schafer (b. 1933) makes no such distinction between civilized and aboriginal music, and notes that folk musicians of many backgrounds are particularly affected by the sounds of the environment, which in his view is a positive attribute, compared with concert music's relative alienation from the environment:

Folk musicians the world over have attested to the effect of environmental sounds on their music ... Concert music also often evoked the more populous environment beyond the music room as a kind of nostalgia (1993: 122)

While Schafer's view of folk music may celebrate its closeness to the natural environment, others in the concert music world have seen it as less valuable. For instance

Rodolphe Mathieu Sr. (1890-1962) attributed the use of folk music by concert composers as a lack, as noted in the CBC report on his work: "Among other things Mathieu writes [in *Parlons Musique*] about the use of folk music in compositions (he considers it to signify a lack of imagination on the composer's part)" (ACM 32, 1988). As I noted earlier, Kelsey Jones associated the use of folk music by concert music composers with a regressive nineteenth century approach to nationalism. And Roger Matton (b. 1929), a composer who is also an ethnomusicologist, studying folk music, says "I think folk music is anti-development, you don't write great symphonies with folk music ... Folk music is a simple thing, complete in itself" (ACM 29, 1987).⁴⁵

Murray Adaskin (b. 1906), a composer who is well known for his use of folk themes, remains quite ambivalent about the use of indigenous music. Asked in the CBC interview about the influence of the music of Native people, he responds:

I have no expertise in this area, but ... I've always loved folk music of every kind and I always tried to find a way of capturing a Canadian sound in my music ... I have used the odd folk song in the odd piece, not in all my music. Unfortunately, one gets labelled with this kind of thing ... I wrote some pieces when I went to the Arctic one early spring, with an anthropologist friend of mine whose subject was the Eskimo and the Arctic ... and I wanted to tape some of the old Eskimos singing their folk tunes ... and I used some of that material in various works of mine ... and I think for that reason I've had a label attached to me as sort of a folk song person. I don't have enough expertise in that field. (ACM 7, 1980)

Adaskin's insistence that he is not an expert in the field, combined with his comment that "unfortunately one gets labelled with this kind of thing" indicates his belief that being linked with indigenous music may be deleterious to his work as a composer. He rejects the label on this basis.

⁴⁵ This comment is remarkable considering the fact that he himself used folk music. However, in relation to his *Concerto for Two Pianos and Percussion* (1954-55) which uses the folk theme "Les Raftsmen," he says "I made little use of folk music in my compositions but .. introduced elements from it ... this music is a reflection of folk music without becoming folk music."

Despite this attitude among some that folk music is simple and unsuitable for serious compositional material, many Canadian composers have used folk and indigenous music, particularly to represent northernness. Elaine Keillor, in her examination of the use of indigenous music as a compositional source in North American concert music, reports that far more Canadian than American composers have turned to indigenous music:

[The Indianist movement] can be dated as genuinely beginning in the 1880s in Canada, but not truly being in evidence in the United States until the early 1890s. Its importance in the United States then extended for approximately 4 decades, while in Canada the movement burst forth in earnest in the late 1920s and has remained vital to the present day. (1985: 203)

Keillor notes that even though early European settlers seemed not to understand or like Native music, it seemed a natural source for nationalist music:

Nevertheless, when the question of establishing a music that was truly American or Canadian arose, an obvious way of doing it was to be part of the "Red Indian School," as John Powell labelled it. (Keillor 1995: 185)

So the use of indigenous music does not necessarily imply understanding of or sympathy with Native culture, but rather can be a convenient way to represent identification with an imagined idea of Canada.

Keillor discusses two main compositional approaches to melody: either stating the original melody, or using it as a source of melodic motifs. Keillor notes that the second approach was the more prevalent: "In Canada, as interest in Inuit and Amerindian materials increased, the melodic line as source for motifs has become the principal approach, particularly in purely instrumental settings" (1995: 197). Approaches to rhythm generally show little understanding of complex Native rhythms, since most composers in her sample use a simple duple meter. There are some exceptions to this rule, in which rhythmic complexities are indicated by shifting meters, as in Violet Archer's *Ikpakhuaq*. Harmonic representation is even more difficult. Keillor describes the attempts of

composers to harmonize Native melodies around the turn of the century as "incongruous, if not disastrous" (1985: 199), since composers were so dominated by European harmonic practice. In the twentieth century, the breakdown of diatonic harmony has allowed for a variety of approaches, but harmonic representation is still dominated by the use of open fourths or fifths, which have no definite relation to Native musical practice (1985: 199).

Keillor reports that "Canadian composers have drawn on Inuit material extensively" (1995: 205), citing this as a difference between the approaches of Canadian and American composers. Many of her examples are references to Inuit music, such as in Leo-Pol Morin's *Weather Incantations*, John Weinzweig's *Edge of the World*, Harry Somers's *A Midwinter's Night's Dream*, and Violet Archer's *Ikpakhuaq*. Keillor claims that Inuit music has been studied far more than any other Amerindian music, and that much of this research is Canadian. Keillor attributes this to ethnomusicologists' interest in music that was relatively "untouched" until quite recently (1995: 205).

Ethnomusicologists' recordings of Inuit music have thus provided material for composers who may never have visited the North. I would also suggest that the appropriation of Inuit music could be interpreted as further evidence of a particular Canadian interest in representing northern wilderness.

Keillor concludes that the use of indigenous music by Canadian concert composers is primarily superficial, in which indigenous themes are imported into a musical style that remains dominated by the characteristics of Western European musical practice (1995: 203ff). This appropriation shows little understanding of Native concerns or history. Instead, Native music in these instances becomes a symbol for identification with an essentialized Northern environment.

At the same time, Keillor notes that some composers' innovative use of conventional orchestral forces has included serious efforts to reproduce aspects of Native music in their compositions. She cites Beckwith's *Arctic Dances* as one example of this. Beckwith records his efforts:

The dance song melody as transcribed by the ethnomusicologist Beverly [sic] Cavanagh (Beverley Diamond) exhibits a sort of monotone, D, surrounded by other nearby degrees — B, C, E — some of which are notated with accidentals or arrows indicating imprecise tuning. In the concert setting for oboe and piano ... this feature is retained in the oboe part while the piano part reflects it in two ways — a left-hand part which interjects similar patterns surrounding another monotone, A, and a right-hand part steadily (but in irregular groupings) providing a background of clusters (1992: 13)

Beckwith also notes that he asked for permission to use this work from Diamond's informants, and he credits transcriber, performers and original composer on the manuscript, paying attention to the power issues that surround musical appropriation.

There are several examples of concert works by Canadian composers that represent the land through their links to the works of Canadian writers and visual artists, although Dawson notes that "in general, our composers have favoured non-Canadian or historical themes as the basis for song texts or libretti" (1991: 20). Violet Archer's *Northern Landscapes* (1978) is based on a set of three poems by A.J.M. Smith that evoke a harsh wilderness landscape. John Beckwith's *Trumpets of Summer* (1964), in which he collaborated with writer Margaret Atwood, explores the ways in which Shakespeare has become part of Canadian life. Beckwith collaborated extensively with writer James Reaney. One of their collaborations was *Shivaree* (1982),⁴⁶ which is based in turn-of-the-

⁴⁶ Another play by Reaney, *Wacousta!* has an interesting connection with the work of Canadian composer and performance artist, Tomson Highway. As recounted by Margaret Atwood: "A footnote to *Wacousta!* is that one of the students who helped with the play's creation and production was Tomson Highway, the Cree playwright who has since gone on to enormous success with his plays *The Rez Sisters* and *Dry Lips Oughta Move to Kapaskasing*. According to Highway, it was *Wacousta!* that gave him the idea that he, too, might be able to create plays out of his own experience and locale. So a play about a fake Indian was inspirational to a real one. Such are the ironies of literature (Atwood 1995: 44).

century rural Ontario. Jean Coulthard's *The Pines of Emily Carr* (1969) and Wende Bartley's *A Silence Full of Sound* (1992) both celebrate the art (and in Bartley's case, also the writings) of Emily Carr. Harry Freedman's *Klee Wyck* (1971) is inspired by Carr's autobiographical book of the same name. Freedman honoured three other painters in *Images* (1958), where the first movement is inspired by Lawren Harris's *Lake and Mountains*, the second movement by Kazuo Nakamura's *Structure At Dusk*, and the third by Jean-Paul Riopelle's *Landscape*. More recently, Michel Longtin's *Pohjatuuli* (1983) honours four artists of the Group of Seven. These compositions reference the landscape indirectly, through its representation in the work of other artists and writers.

The most direct reference to the image of northern wilderness in Canadian landscape is in music that specifies a northern location in the composer's program notes or in the title of the piece, uses environmental sounds as a compositional source, or is written for a particular location. Several composers have a few pieces of this type. The music of five twentieth-century composers in particular—Claude Champagne, John Beckwith, Harry Somers, Glenn Gould⁴⁷ and Murray Schafer—bear many references to Canadian environments that have been discussed in musicological literature.

Most of my discussion will focus on composers active in the twentieth century, since the majority of references to the use of natural imagery and music that refers to place in the musicological literature are from this time period.⁴⁸ But there are a few earlier references. Kallmann (1960) and Amtmann (1975) both describe the music of Marc Lescarbot, a composer in New France who in 1606 wrote *Le Théâtre de Neptune*, a music theatre

⁴⁷ Gould is primarily known as a performer rather than a composer. I will discuss his composition of three electroacoustic works—radio documentaries that are composed in an experimental way.

⁴⁸ Most of the descriptions of compositional activity of any kind refer to the twentieth century. Diamond notes in "Narratives in Canadian Music History" (1994a: 150-152) that Kallman represents a cultural blossoming in composition after 1850, while Ford and McGee primarily locate this "blossoming" later, in the twentieth century.

piece which was performed in barques on the waves of the harbour, much as Murray Schafer's *Princess of the Stars* is now performed in canoes on the waters of a lake. Also, in Kallmann's discussion of sheet music written around 1900, he notes that both the St. Lawrence River and trains were sources of inspiration:

Next to patriotic sentiment the mighty St. Lawrence River provided the most powerful inspiration ...The railway was another marvel of the day. On Dominion Square in Montreal the Victoria Rifles played in 1887 *A Trip from Montreal to Lachine on the G.T.R.* In answer to "popular demand," the score called for "bells, whistles, steam etc." (Kallmann 1960: 259-260)

Murray Schafer notes that trains have generally been perceived as one of the more pleasant sounds of the Industrial Revolution, particularly in Canada: "To a Canadian especially, trains have unifying rather than destructive connotations, the railway long being recognized as the spinal column of Confederation" (Adams 1983: 128).

John Beckwith documents a range of nationalistic songs from the 1850s and 1860s that refer to Canadian natural imagery (1992: 5). He also notes that music in Toronto seemed to be more in tune with the local environment in 1884 than in 1934. Writing about his experience organizing a concert for a sesquicentenary celebration in Toronto in 1984, he says that in a concert in 1884: "the emphasis was on the city itself, its history, topology and accomplishments; and these were enshrined in a song especially commissioned from a local songwriter named Martens" (1992: 6), whereas in 1934, a committee organized a concert with music only by well-known European composers.

While some of the composers interviewed by the CBC denied any connection to the Canadian environment, some others have referred to its importance to their approach to composition. Micheline Coulomb Saint-Marcoux (1938-1985) states that nature has

always been present in her work. "I was ... born in the country, in the midst of a nature that was quite hard and arid" (ACM 18, 1984: 29). François Morel (b. 1926) says:

a Northerner will bring with him a Northerner's sensitivity ... I'm a Northerner of course... I think the North attracts us ... it's the poetry you get from a northern environment with its bright red maple leaves in autumn and the many colours. (ACM 6, 1980)

Jean Coulthard (b. 1908) describes herself as very much affected by nature (ACM 9, 1982). Her *Sketches from the Western Woods* (1970) reflects the "land of sea-drifts and snow-capped mountains" and *Twelve Essays on a Cantabile Theme* uses subtitles referring to natural themes and winter weather. Barry Truax (b. 1947) has composed several pieces that use environmental sounds recorded in Canada, including *Dominion* (1991), which is based on an east to west sequence of unique Canadian sound signals. Srul Irving Glick (b. 1934) believes that composers only achieve universal significance by close attention to the particular (ACM 34, 1989). His *Northern Sketches*, 1983, commissioned for the Festival of the Sound, Parry Sound, is based on northern imagery that explicitly refers in the program notes to Tom Thomson's paintings and northern weather.

Violet Archer (b. 1913) believes that the landscape plays a part in all Canadian composers' work at an unconscious level, even if it is not perceived consciously. In the CBC interview, she says that Somers and Weinzwieg were influenced by the severity of the Canadian landscape, and describes her own music as "rugged." She mentions an article that she wrote in *Panpipes* (1959)⁴⁹ on the subject of the influence of the landscape on Canadian composers. Some of her work titles, or more often subtitles, refer to northern themes: *Under the Sun*, (1949) #2: "First Snow;" *Landscapes* (1951); *Ten Folk Songs for Four Hands* (1953); #8: "Eskimo Prayer;" *Three Sketches for Orchestra*

⁴⁹Unfortunately, I was unable to find a copy of this article in Toronto.

(1961), #2: "Dance" (based on an original Inuit tune); *Prairie Profiles* (1980), #2 "Have you heard the snow falling?," #3, "Ground Blizzard;" *Northern Landscape* (1978). Oddly, until a very recent paper by Elaine Keillor⁵⁰ I could find no references in musicological sources to her use of natural imagery in her music. There is no mention in Beckwith (1958), or McGee (1985), although these authors discuss the use of natural imagery by other composers. In her monograph on Archer, Linda Hartig (1991) does not mention the use of natural imagery, and further does not refer to Archer's early composition lessons in Montréal with Claude Champagne, which may have influenced her in this direction.

Claude Champagne (1891-1965)

Claude Champagne says that the contemplation of Nature was the strongest influence in his musical life. He said that he wanted to "decipher the music which is written in nature" (Desautels 1969: 107). He was also strongly influenced by French impressionist composer Claude Debussy, to the extent that he legally changed his first name from Josephe to Claude (Nevins 1990: 7).

The two works which most clearly show the influence of landscape on Champagne are *Symphonie Gaspesienne* (1944) and *Altitude* (1959). *Symphonie Gaspesienne* followed an earlier piece, *Gaspesia*, in which Champagne was not happy with his attempt to represent the landscape of the region. *Gaspesia* was:

inspired ... by the visual and auditory impression created by the imposing spectacle of the Gaspé region ... I started developing this work in *Gaspesia* ... after hearing *Gaspesia*. ... it struck me as kind of pastel, and that

⁵⁰ Elaine Keillor, "Women Hearing Home: How Canadian Compositrices Respond to Canada's Soundscape". Presented at the Sonneck Society for American Music, 1997. Violet Archer, Jean Coulthard, Rhené Jaque, Alexina Louie and Barbara Pentland are discussed with reference to the geographical locations of their formative years. Keillor discusses the differences between Archer's early work in Québec, where she used jig patterns and dark sonorities (no reference here to her work with Claude Champagne), in contrast to her later work in Edmonton, which Keillor describes as having "spacious line with a texture that is more airy". There is no reference to nordicity.

annoyed me, because I wanted to create an acoustic fresco⁵¹ ... I really did, I think [with] what I call the *Symphonie Gaspésienne* (Nevins 1990: 51)

In a 1963 interview with Andrée Desautels included in the CBC anthology, he says of the *Symphonie Gaspésienne*:

I wanted to create the atmosphere of the place, and in the oboe solo ... one finds all the melancholy, the fog, the people who live there—there's a touch of nostalgia in it. Then there's the sea, the movement of the waves in the St. Lawrence, and again the fogs which are present the whole time. (ACM 30, 1988)

Desautels describes the metric structure of the work as similar to the movement of the St. Lawrence: "The movement of the work is free, like the movement of the waves ... Such metric freedom is typical of Champagne" (1969: 107-8). George Proctor comments on Champagne's construction of spaciousness in the landscape: "Champagne achieves this feeling of vastness in time and space by repeating a drone-like bass figure for the first four and one-half minutes of the nineteen-minute work" (1980: 39).

The later piece, *Altitude*, is intended to represent Canada's west through a depiction of the Rocky Mountains. Here, the landscape is gigantic, awe-inspiring. In his interview with Desautels on the CBC anthology, Champagne says that *Altitude* suggests: "a majestic sight of the Rocky Mountains ... this rugged landscape with its sharp, gigantic peaks." In order to express the mystical atmosphere of the mountains, Champagne chose to use the *ondes Martenot*, an electronic instrument. Proctor notes: "The Ondes was selected to perform this bit of musical geography because of its ability to manipulate glissandi and thereby translate the 'schema topographique' into sound" (1980: 69).⁵²

⁵¹ This term seems to me to imply a landscape painted on a large scale with strong colours.

⁵² The *schema topographique* that Proctor refers to is a graphic representation by Champagne of the form of the piece, in the shape of a mountain range.

In his discussion of Champagne's work, George Proctor describes it as being closely aligned in mood with the works of the Group of Seven (1980: 39). Although Proctor is not specific about how the work is related, his references to the vastness of the landscape seem similar to Northrop Frye's description of the Group of Seven as fixing their view on a distant horizon. Frye creates an image of the Group as northern explorers, and Proctor links Champagne to that mythology.

Harry Somers (1925-1999)

While Champagne was clear about the influence of nature on his work, Harry Somers has been more ambivalent. In the CBC anthology, he refers to the influence of John Cage, and how the work of Cage changed his attitude about distinctions between music and non-music. He describes a soundwalk that he did in the 1960s, working with non-musicians. He asked them to listen to sounds in a windy field and to describe them in musical terms before listening to music, then composing collaboratively. Somers was clearly influenced by natural sounds and the landscapes of Canada. His works include titles such as *North Country* (1948), *Saguenay* (1956), and *Five Songs of the Newfoundland Outports* (1968). Yet earlier in his career, he was ambivalent about the use of such titles. Brian Cherney, in his monograph about Somers, includes an excerpt from a program note written by the composer:

These titles are merely signposts indicating the direction the music has come from. In no instance are they to be taken literally as representing a particular thing, or that the music is trying to represent a particular thing. The important thing is that the titles are symbols. (Cherney 1975: 15)

Later, Cherney refers to another program note which takes up the same theme and goes further, indicating that in the future, Somers intended to limit his use of descriptive titles:

In program notes for his piano recital of 13 March 1948, Somers wrote that in the future he intended to use descriptive titles only in very special instances: "I have discovered that it is very dangerous to use a title. People tend to hang on to a title for dear life, using it to visualize countless

objects which they think the music represents. Consequently the music becomes a sort of second hand medium for painting or literature, instead of a medium in itself." (1975: 23)

Here the title is seen as a temptation to stray into extra-musical realism, implying that to visualize detracts from the listener's appreciation of the music rather than contributing to it.

In the fall of the same year, Somers wrote *North Country*, the work of his that has been most often described in terms of its landscape qualities. Cherney is careful to note that this is a piece of *absolute* music, then proceeds to link it with the work of the Group of Seven:

In the fall of 1948, Somers wrote *North Country*, a suite for string orchestra--conceived as a piece of 'absolute' music, yet marvellously suggestive of the qualities of that vast, silent land made famous by the Group of Seven." (1975: 21)

Later, Cherney describes the piece in more detail, again pointing out that the title is not necessarily related to the piece, then going on to describe its relation to the northern landscape:

It is the last work [in this period] to bear a descriptive title, but the title was added after the piece was completed ... Essentially the work is a four-movement suite ... Notwithstanding, the music ... is highly suggestive of certain qualities one associates with the vast semi-wilderness of northern Ontario—bleakness, ruggedness, and loneliness. The musical characteristics which suggest these qualities are not difficult to isolate: the taut, lean textures and nervous rhythmic vitality (especially of the outer two movements) and the spare, thin melodic lines (especially in a high register, as in the first movement) are the most obvious traits. Mention has already been made of Somers's periodic visits to northern Ontario during the forties—the qualities of that landscape were engrained in his consciousness. (1975: 35)

Again, in the 1980 CBC anthology, the same ambivalence about the title surfaces, then is followed by a description of the landscape: "Although the composer has never been absolutely specific with regard to its title, the work probably found its name in the

rugged, almost wild landscapes of northern Ontario ... the harmonies are sparse, evocative of large empty spaces" (ACM 7, 1980: p. 4 liner notes). In Timothy McGee's account of the piece, there is no ambivalence about the title, and McGee discusses the piece as a clear description of northern Ontario:

The subject is northern Ontario, and the four movements depict ruggedness, tranquillity, majesty, and energy ...The isolation of the slow, regularly moving melody accompanied by such dramatic and dissonant chords (notice in bar 2 the clash of Eb and Bb against the melodic B natural, finally relieved by the melody note D#-Eb) paints a picture of loneliness, ruggedness, and stark beauty" (1985: 131)

In more general accounts of Somers's work, he is often described as a northern composer, with north represented as melancholy, rough, hard, and bleak. Peter Such (1972) describes Somers's music as showing a love of the North through the use of isolated lines and taut silences. Stephen Adams says that Somers's music shows "a rough sort of hard line in the melodic writing that you don't seem to find in other parts of the world, except maybe among Scandinavian composers" (Adams 1983: 59). In the conclusions to his monograph, Cherney says:

one senses a streak of melancholy running through Somers's music, even a certain bleakness, which originates in spare, dissonant textures. These characteristics, in addition to the use of 'long, severe melodic lines' are perhaps traits of a 'northern' composer, although attempts to establish such relationships are difficult and tend to obscure a thorough examination of *the music itself*. (1975: 152, my emphasis)

The depiction of the north as bleak, lonely, and severe is associated with the symbolism of the north, as described by cultural theorists such as McGregor and Frye. Another of Somers's pieces, *Evocations*, is based on the imitation of actual sounds heard in northern Canada, such as the cry of the loon which begins the piece. This change in focus from symbolism through titles to imitation of actual sounds may have been affected by Somers's encounter with the music of John Cage, although I have not seen any reference to this encounter in the musicological literature outside of the CBC anthology.

John Beckwith (b. 1927)

Perhaps the greatest advocate of Canadian music to the rest of the world is composer John Beckwith, who in addition to composing has also promoted the works of Canadians and has written at length on Canadian musical life. Writing in 1975 in a publication about contemporary Canadian music, he notes that Canadian composers try to locate themselves within the sights and sounds of Canada:

Read a book on Canada and you will find little in it about music. Read a book on music and you will find even less in it about Canada. A Canadian composer, not wishing to be a human contradiction in terms, tries to locate the ways in which the two concepts "Canada" and "music" have evidently influenced his particular identity. His knowledge of international and global musical trends finds a strong coordinate force in the sights and sounds and established cultural habits of his immediate environment and society. (1975: 6)

In his interview by Keith Macmillan on the CBC anthology, Beckwith notes that Canadian identity is often diminished in relation to that of the United States: "In the eyes of the rest of the world, Canada is a blank on the map ... it's the Northern part of the United States" (ACM 26: 1986). Integral to his belief in the development of Canadian music is his conviction that there is no such thing as purely abstract music: "I do not regard music as a pure or abstract phenomenon, even in such a traditionally rarefied Western-art medium as the string quartet. Connections with tradition, with a social environment, and with human-life attitudes are bound to be apparent" (ACM 26: 1986).

The Great Lakes Suite (1949) is one of his first geographically specific pieces. Istvan Anhalt writes:

The persistent theme in Beckwith's oeuvre (a search for a Canadian voice through music) and the preferred mode of construction (a quilt-like design) were present even in 1949 in *The Great Lakes Suite*, which suggests, as if through the perception of an imaginative child, familiar sights, people, attitudes, actions ... invoke[s] a 1920s music hall, a

Victorian ballroom, a rowing excursion, a patter song heard long ago....
(Anhalt 1992: 98)

This piece was also prophetic of his other work in its geographical location: much of his later work was concerned with social life in southern Ontario, particularly in the nineteenth and twentieth centuries. Although *Arctic Dances* (1984) visits the far north, the furthest north other located pieces refer to is Sharon, Ontario: *Sharon Fragments* (1966) and *Three Motets on Swan's China* (1981). This emphasis on rural and urban places in southern Ontario sets Beckwith apart from other contemporary Canadian composers of his generation.

Beckwith's focus on southern Ontario over two centuries' history allows a historical and geographical particularity which Anhalt notes in the previous quote about *The Great Lakes Suite*. Through Beckwith's work we are introduced to specific activities and locales associated with particular times and places. Many of these works are collaborations with writer James Reaney, works like *Wacousta!* (1979) and *Shivaree* (1982) that are based on Canadian historical stories. In *Upper Canadian Hymn Preludes* (1977) he composed interludes made of recorded environmental sounds. He describes these as realistic sound effects, concrete rather than pitched music, and notes that he had just read Murray Schafer's *The Tuning of the World* before composing these pieces (ACM 26: 1986). Beckwith refers to the taped interludes as soundscapes "intended to evoke aspects of pioneer life in Upper Canada ... from the first outposts of religion and music in the wilderness ... to the advent of machinery and the railways" (ACM 26 liner notes, 1986: 12).

Beckwith's particularity is an unusual approach to place in Canadian music: it is much more common to hear pieces that refer to a mythologized and generalized Canada or North. Its focus on the local history and geography of southern Ontario could lead to its

association with the pastoral mythology of Lismer and Frye. Note, for instance, that Frye linked the pastoral mythology with childhood, and Anhalt describes Beckwith's music as seeming "as if through the perception of an imaginative child" (1992: 98). Why does Anhalt use the image of a child's perception here? Is it to emphasize openness, or innocence, naiveté and lack of experience of the wider world? Is it because he does not take Beckwith's music as seriously as that of other composers?

Beckwith also produced a work about Canada as a whole, *Canada Dash, Canada Dot* (1965-67)⁵³ described by Anhalt as

a panoramic triptych conveying an image of a country and its people through the intricate weave of a disparate assemblage: stylized morse code, a country fiddler, enumeration of names ... a transmuted Lavallée galop, railway lore, hawking, the song of a footloose pop singer, and hymns. (Anhalt 1992: 98)

Here, the piece is not associated with a particular place. But neither does it seek to create a unified northern myth. Beckwith uses collage to bring together the disparate experiences of a variety of Canadians.

Glenn Gould (1932-1982)

It would be difficult to discuss the idea of North in Canadian composition without including the work of Glenn Gould, who wrote three experimental radio documentaries collectively known as the *Solitude Trilogy*, the first of which he called "the Idea of North." In the liner notes, the pieces are described as follows: "these radio documentaries, or 'oral tone poems,' examine the lives of people living in isolation" (1992, unpaginated). His compositional approach is to take separate interviews recorded at different times, then weave them together fugally to construct imaginary dialogues among the

⁵³ Actually, three works: *The Line Across (Canada Dash, Canada Dot, Part I)* in 1965, *The Line Up and Down (Canada Dash, Canada Dot, Part II)* in 1996, and *Canada Dot (Canada Dash, Canada Dot, Part III)* in 1967.

interviewees. The first work contains interviews with five people about the Arctic, using the sounds of a train as a basso continuo;⁵⁴ the second work contains interviews with people living in Newfoundland, using the sound of the sea as a basso continuo; and the third work—the most experimental—is a montage of ambient sound, music and speech with voices of people from the Mennonite community at Red River, Manitoba.

Although the works purport to be about isolation, the use of narrative and constructed dialogues including the perspectives of many different people creates nuanced and variable discussions of concepts of solitude and community. For instance, talking about the feeling of space in the wilderness, one of the interviewees says: "space makes me feel cooped in" because there are so many dangers out there. The discussion goes beyond the stereotype of northern life as radically isolated: several interviewees talk about the intensified necessity of community in a northern environment, recalling McGregor's (1985) discussion of the importance of the small town to northern life. There is also a reference to the machismo and moral rigour associated with the idea of a rugged northernness, when an interviewee says: "for us [Canadians] the moral equivalent of going to war is going North." This statement recognizes similarities between soldiers and northern explorers in their struggle against a harsh reality, as well as the camaraderie of banding together against a perceived threat to the community. It also constructs Northern nature as the enemy. By creating constructed dialogues about solitude and northernness between real people with differing viewpoints, Gould interrogates northern mythologies as much as creating them.

Murray Schafer (b. 1933)

⁵⁴ Gould uses this musical term to describe the ambient sounds accompanying the dialogues.

The themes of struggle and individualism in northern life also arise in the writings of composer Murray Schafer, who has mythologized the idea of Canada as North the most extensively of any Canadian composer. Although he does not write about the importance of cooperative community to an idea of north, this theme appears in his musical works.⁵⁵

Schafer has often written about Canada as a northern country, most notably "Music in the Cold," a monologue which was included with the CBC anthology (ACM 1: 1979). He begins with a description of winter and its weather, and asks what this will do to music, then answers that it will toughen it up, make it bare bones with a form as pure as an icicle: for Schafer, northern geography is all form, southern geography colour and texture (ACM 1, 1979). He continues with a description of north and south that clearly breaks down into a number of dichotomies, which are listed below:

North	South
winter	summer
formal, structure	technicolor, surface
restraint	excess
lean stomach, fitness	dancing girls, slobber
strong bow, work	flatulence, ease
conservation of energy	prodigality
tiny events magnified	fast, many events

The over-riding theme of the monologue is resistance to the difficulties of the environment, and isolation: "my landscape is not a peoplescape. I am afraid of people. My head is a thousand acres of wilderness" (ACM 1, 1979). In the same monologue, Schafer describes the Canadian composer as like the "impassive, unpainted observer in a Group of Seven painting."

⁵⁵ Schafer's strong interest in the influence of environment on the soundscape (including music) is evident through his long-standing research in this area. He is particularly well-known as the initiator of the World Soundscape Project in Vancouver in the early seventies.

An interesting aspect of Schafer's cold music that is reminiscent of Fernandez' discussion of attitudes regarding northernness and southernness is the association of southernness not only with ease and prodigality, but also with femaleness and dark skin. He tells a story in the monologue of how leisure killed art, noting that when this happened: "Tall women in bikinis ran the country ... the people turned brown" (ACM 1, 1979).

In later publications, Schafer no longer speaks of the difference between north and south in terms of gender, but maintains the focus on isolation, hardship and vigour, which are defined against the cultures of the United States and Europe in his recent article "Canadian Culture: Colonial Culture":

The basic argument of "Music in the Cold" is that culture is shaped by climate and geography, that as the project of a northern territory Canadian art has a wildness and vigour not evident in the hot-house effusions of more civilized centres ... the essential difference between Canadian and European landscapes is that ours are not peoplescapes and that the viewpoint (i.e., the painter's position) of a Canadian landscape suggests hardship. (Schafer 1994: 224)

My reading of his earlier writing makes clear an often hidden association between stereotypes of northernness and masculinity, southernness and femininity. This association is also noted by Fernandez, in his reading of Campbell and Levine, which I have reproduced in Appendix A. Here, manliness is listed as one of the characteristics of a northerner's self-image. When Schafer continues to emphasize isolation and hardship as northern traits in his later writings, he no longer refers to gender, but it continues to be implied.

Other Canadian artistic and musicological descriptions of northernness as loneliness, ruggedness and isolation also imply stereotypical masculinity. The image of a single, parka-clad man crossing the tundra is almost as isolated and armoured as that of the

suiting man in space, a stereotypically masculine icon of independence from the environment (aided in both cases by technology, seen as Canada's area of expertise in dealing with the North, which has been appropriated to create hands and arms in space).⁵⁶ Many Canadian composers' works have been described as rugged by musicologists. Both Desautels (ACM 30, 1988) and Proctor (1980:39) describe Champagne's work as rugged. Cherney (1975: 35) and McGee (1985: 31) describe Somers's work as rugged. This ruggedness is communicated by "taut, lean textures," a "nervous rhythmic vitality" and "spare melodic lines" (Cherney 1975: 35), "dissonant chords" (McGee 1985: 131), "isolated lines and taut silences" (Such 1972) and a "rough sort of hard line" (Adams 1983: 59). Schafer says that the position of the Canadian composer is like that of the unpainted observer in a Group of Seven painting, a position suggesting hardship and isolation.⁵⁷ Cherney also associates Somers with the Group of Seven (1975: 21), and Proctor associates Champagne with them (1980: 39).

But this ruggedness seems only to be associated with male composers in the literature. While Violet Archer describes her own work as rugged (ACM 17 1983), and says that this is characteristic of many Canadian composers, this description of her work is not found in the writings of musicologists, as I noted earlier in this chapter. In her introduction to a book on the Group of Seven, Joan Murray describes the Group of Seven as engaged in a masculinized view of Nature: "It was essentially a grown-up boy's club. The boyish atmosphere extended to the kind of paintings the Group produced. They are full of a boy's story search for a site" (1984: 7). By associating these male composers'

⁵⁶ I was particularly struck by this perceived similarity between the far north and outer space when I lived for a few months at an oil base in Tuktoyaktuk, NT. The building stood high on stilts above the snow, resembling a space station in a science fiction story. There was even a room by the door in which everyone had lockers containing their outdoor clothes. People would speak of "suiting up". Helicopters landed right by the back entrance; the trucks, always running, waited by the front for people to run the few steps from door to door.

⁵⁷ He comments that "the viewpoint (i.e., the painter's position) of a Canadian landscape suggests hardship" (1994: 24).

works with those of the Group of Seven, and by not describing Archer's work in the same way, Canadian musical texts increase the associations between northernness, ruggedness and masculinity.

Much of Murray Schafer's work portrays ruggedness as a Northern necessity. Images of isolation and menace by the environment are quite evident in Adams's description of one of Schafer's early works, *Brébeuf* (1961):

Brébeuf's antagonists are not just the Indians, savage and mistrustful as they are, but also the Canadian vastness itself, cold and isolating ... Winter is suggested by glittering tremolos ... in the violins' highest register over sizzle cymbals, while the interlude leading to section II represents the "sudden dramatic break-up of the ice on the St. Lawrence River" during the Canadian spring, which requires not a 'delicate flutter of sound' but a 'quite brutal strength.' (Adams 1983: 76)

In *North/White*, he moves away from this image of the landscape as unpeopled and menacing to one in which the landscape is austere and pure, and the menace is people. Humanity, represented through the use of a snowmobile in the orchestra, menaces the winter landscape with technology. Adams describes the effect as "imposing, even terrifying" (1983: 127). Susan Bradley notes that there are two themes in this piece: the first, "austere, spacious, lonely, pure or mysterious" (1983: 108) seems to refer to the northern landscape and the second, which she describes as ugly, to the effects of industrialization.

More recent pieces require the performers and audience to experience wilderness. The two pieces that Schafer says are "the two most authentically Canadian pieces I've written" are *Music for Wilderness Lake* (1979) and *The Princess of the Stars* (1981), both written to be performed in wilderness settings. Adams says that these pieces return to "an era when music took its bearings from the natural environment, a time when musicians played to the water and to the trees and then listened for them to play back to them"

(1983: 180). This appeal to an idealized past when musicians were more in touch with nature is somewhat romantic, appealing to nostalgia for environmental connection.

Another perspective on Schafer's wilderness pieces which questions this dialogic description by Adams is provided in an interview of Schafer by Hildegard Westerkamp, regarding *Music for Wilderness Lake*. Westerkamp asks whether Schafer had announced the event locally, and he replies that he did not, being "more concerned about the integrity of a musical composition" than about the audience (Westerkamp 1981: 20).

Westerkamp questions whether the music was not written for the musicians rather than for the lake:

writing a piece of music for a landscape is not dissimilar to putting a piece of architecture into a landscape...Acoustically...I did not get any sense of dialogue because the music was continuous and uninterrupted. A true dialogue needs silences. (Westerkamp 1981: 20-21)⁵⁸

While Westerkamp talks in this interview about the importance of dialogue with the environment and with the audience, Schafer describes the piece as "a confrontation; I would call it the dialectic of the environment versus society" (as quoted in Westerkamp 1981: 20). Whether dialogue or confrontation, human society is implicated in this wilderness.

While Schafer continues to maintain in 1994 that Canadian landscapes are not peoplescapes, his more recent pieces require the musicians, actors, and in the case of *Princess*, the audience, to abandon the concert hall for the wilderness, to undertake a trek, to sit on rocks: to imagine, for a while, that they are rugged. The idea of an environmental pilgrimage where an audience leaves the city to experience a wilderness environment, and of musicians playing in relation to the water and the trees both work against Schafer's description of an unpeopled landscape: the presence of people in the wilderness is

⁵⁸ Perhaps this constant instrumental sound in Schafer's *Music for Wilderness Lake* could be considered similar to the "netting" that Brakhage considers typical of Group of Seven paintings, where the painters would cover the canvas, leaving no spaces, allowing the landscape to be captured and therefore neutralized (Brakhage 1997: 28). Westerkamp is advocating an aesthetic that leaves space for silence.

required for the pieces to take place, forming a temporary culture in nature, as demonstrated in the following description by Schafer of *Princess of the Stars*:

With musicians positioned around the water and spectacularly costumed actors and dancers in canoes in the centre, an autumn ritual was enacted in which real birds intersected with singers and dancers imitating them, the sun-god appeared at the precise moment of sunrise, and the legendary substance of the plot sought in every way to unite the fate of characters in the drama with environmental changes in and around the water on a late September morning. (1994: 224)

Not only is this not an unpeopled landscape, it is also one made more colourful by spectacular costumes. While Schafer described northern music as concerned with formal structure rather than surface textures (see my chart earlier in this chapter), his own music reflects a concern as much with surface as with formal issues, a concern which is also evidenced by his remarkably beautiful musical scores. My experience of several Schafer pieces is one of spectacle which seems as much concerned with beauty of texture as with elegance of form. When I saw *Princess of the Stars* in 1997, at the Haliburton Forest, I was impressed with the dramatic staging in canoes on a lake. The costumes were indeed spectacular, as performers dressed as birds with large colourful wings were borne across the lake in canoes. When I attended *The Greatest Show on Earth* in Peterborough several years earlier, I experienced it as intensely theatrical and involving. Once again, costumes, staging, and sets were elaborate and colourful. His own musical productions work against the dichotomies that he has maintained in his writing to delineate northern from southern music.

In more recent writings his description of this type of work has changed: "*Princess [of the Stars]* is probably the most 'Canadian' work I've written, if by Canadian one means something that authentically reflects the habit of living in a place one knows and loves" (1993: 83). Later in the same article, he reflects on an open relationship with nature:

If we believe that we participate with the sensory data of the world rather than rule them, we cannot help but regard the environment with greater humility. You open to the world, waiting for it to touch you, to order you into action. Then other kingdoms of experience will begin to tell you about joys and griefs, enthusiasms and fears you had never suspected. (1993: 97)

Perhaps this reflects a general change in Schafer's attitude towards the environment, a shift to a less confrontational and more receptive (yet dramatic and colourful) one.

Composers have approached the Canadian environment in a variety of ways, by using indigenous motifs, referring to the work of Canadian artists and painters, or by writing work that refers to an imagined, often northern, landscape or a specific location. Within this work, the depiction of the Canadian environment as a wilderness or northern landscape is quite common, while images of southern and city locations are found much less frequently.

Hildegard Westerkamp's Approach to Place

Hildegard Westerkamp's compositional work emphasizes dialogue with the acoustic environment that she records as well as with the audience. As with Beckwith, her landscapes are particular places, and most often are peopled. Another similarity to Beckwith's work is her engagement with urban places: much of her work is about the area of Vancouver, where she lives, often produced for radio in order to be played back to the community from which it originated. A difference between the two composers is that while Beckwith has only written some compositions that referred to place, all of Westerkamp's work to this point does this.

While much of Westerkamp's work is about the Vancouver area, she has also composed wilderness pieces, but not always about northern wildernesses. *Cricket Voice* was written about the Zone of Silence, a desert area in Mexico. This is one of the few pieces by

Westerkamp that does not include the sound of a human voice. Human presence is indicated by the percussive sounds produced by herself playing cactus spikes, which is mentioned in the liner notes, as well as the sounds of people moving rhythmically in a reverberant cistern. In *Beneath the Forest Floor*, a work about the Carmanah Valley in B.C., human performance is radically limited: we hear it only in the distant sound of a chainsaw. Two works about Banff Alberta, *Banff Razzle Dazzle* and *Contours of Silence*, are concerned with the imagery of northernness in a tourist centre through the sounds and street names of downtown Banff and the further reaches of the park, as well as its history as told by a local resident. Westerkamp seems to be interested in questioning mythologies of northernness as much as creating them. Her emphasis, like Beckwith's, is on particular places, beginning with her home and extending outward in all directions. She is as much interested in urban places as in wilderness. She does not create unpeopled wildernesses—a human presence is always heard.

To provide a taste of issues to be considered in more detail later in the dissertation, let me turn to how Westerkamp works with places, and consider them in light of a recent article about place, written by philosopher Edward Casey, and published in the anthology *Senses of Place* ("How to Get from Space to Place in a Fairly Short Stretch of Time," 1996: 13-52). The volume, edited by anthropologist Keith Basso and ethnomusicologist Steven Feld, considers current work about place by ethnographers. It begins with a discussion of the groundbreaking work regarding place by anthropologists such as Appadurai and Rodman (cited earlier in this chapter), and deepens those perspectives through descriptions and considerations of particular situations. Casey's article provides a theoretical framework for this discussion, and seems particularly suited to an exploration of Westerkamp's approach.

Casey begins with the question: "Are not space and time universal in scope, and place merely particular?" (1996:13). He points out that this has traditionally seemed the sensible belief, a contrast of universal and particular which echoes some of the comments made by contemporary composers cited earlier in this chapter contrasting "universal" music with "regional" styles, with greater value attached to the former (see pages 17-18 especially). This belief in the greater value of space and time over place is still prevalent in anthropology as well: Casey cites several examples in contemporary anthropological texts as recent as 1991. He then asserts that place is not *merely* particular, but is "particularly" important, at the very basis of the process of knowing:

Local knowledge is at one with lived experience if it is indeed true that this knowledge is of the localities in which the knowing subject lives. To live is to live locally, and to know is first of all to know the places one is in. (1996: 18)

"To live is to live locally" implies a much more intense focus than the kind of imaginary place we create whenever we speak of Canada as a whole. In her 1974 article, "Soundwalking," Westerkamp suggests that to begin listening to the environment, it is best to limit the area for the sake of increased focus and intensity:

The first soundwalk can be done anywhere, at any time, and as often as desired. For the sake of intensity it may be wise to limit the walk initially to a small area or even to one particular spot. (Westerkamp 1974: 19).

More recently, she has written directions for a "Soundwalk from Home" (*The New Soundscape Newsletter*, May 1997: 10), in which she advocates going for a soundwalk in one's own neighbourhood, starting from one's own house, listening to the most familiar soundscape that a listener would know. At the end, she asks "Did you hear the sounds of this place of this time in your life?" urging the listener to reflect on the place of these sounds in their own life stories, and to recognize that the sounds of a place change according to time and perspective.

Casey argues that for the modernists, space was conceived in terms of its formal essence, and place was disempowered precisely because of its specificity: as Clifford Geertz points out elsewhere in the volume, "Place makes a poor abstraction" (1996: 259). Casey claims that place can be considered both pre-modern (in ethnographic accounts of traditional societies) and postmodern (in the contemporary writings of ecologists, cultural geographers and others). He asserts that to reinstate place, to reoccupy the concept, we must approach it through our lived and moving bodies. Our bilateral, multiply articulated bodies allow a multiplicity of entries into places that can produce many specific perspectives on a place: "a given lived body and a given experienced place tend to present themselves as particular: as just this body in just this place" (1996: 22). Bodies in places are also bodies in motion: Casey considers the interaction between body, place and motion to be crucial. "Part of the power of place, its very dynamism, is found in its encouragement of motion in its midst, its "e-motive" (and often explicitly emotional) thrust" (1996: 23). Casey considers the living and moving body essential to emplacement:

Just as there are no places without the bodies that sustain and vivify them, so there are no lived bodies without the places they inhabit and traverse. (Even imaginary places bring with them virtual bodies — "subtle bodies" in an earlier nomenclature). Bodies and places are connatural terms. They interanimate each other. (1996: 24)

Westerkamp, too, emphasizes the importance of the lived and moving body to work in place. She gives instructions on how to do a soundwalk, and begins with the following:

Start by listening to the sounds of your body while moving. They are closest to you and establish the first dialogue between you and the environment. If you can hear even the quietest of these sounds you are moving through an environment which is scaled on human proportions. In other words, with your voice or your footsteps for instance, you are "talking" to your environment which then in turn responds by giving your sounds a specific acoustic quality. (Westerkamp 1974: 19)

For Westerkamp, the sounds of the listener's body become an index of the scale of the environment, and the initiation of a dialogue with the place. In order to hear a place, it is important to listen to the sounds of the body in relation to it. Attentiveness to and

knowledge of the local environment begins through attention to the sounds of the moving body in that place. Also, as Beverley Diamond noted when she read this paper, it is not only human bodies that inhabit a place. Westerkamp also stresses the importance of recognizing and maintaining a dialogue with the other bodies in a place, whether human or otherwise.⁵⁹

Casey distinguishes among three types of motion. The first is staying in place, where the body remains in one position, while parts of the body may move slightly (rotating head, twiddling thumbs). The second is moving within a place, where bodies ambulate through a prescribed location. The third is moving between places, where the motion is a transition, for example emigrations, pilgrimages and nomadic circulations. I recognize, in Westerkamp's work, similarities between these three types of motion and three different approaches that she uses in recording environmental sounds:⁶⁰ field recording (still

⁵⁹ Such as the moving bodies of other animal species, architectural bodies of buildings, sculptural bodies of creekbeds, resonant bodies of cactus plants.

⁶⁰ My interpretation of the terms soundwalk and field recording are somewhat different from Westerkamp's. She and I had an extensive email conversation about the difference between her use of these terms and my own. An excerpt of this conversation follows (I maintain formatting from the email message):

>in many of your pieces, i hear what i would describe as a 'soundwalk kind of motion' throughout the
>piece, no matter what your original process was... when i listen to 'Gently Penetrating...' for instance, it
>sounds as though the original recordings are soundwalks--are full of a person's motion through those areas
>—in other words, i sense your presence, your perspective moving through places and listening.... perhaps
>what i am getting at is that in much of your music, i hear a sense of motion and perspective that is
>part of your appeal for me, something that i don't hear in the same way in other soundscape composition.

Are you perhaps saying that it is at the juncture between listening (perspective) and composition (motion in time) that the music occurs? or rather that that may be the point at which you hear actual music, just like I do. It is no longer soundwalking, soundscape work, but it is something that moves you. Music that moves you (to walk? dance?). My cousin's wife said after hearing "Beneath....." that this piece should be danced, like a ballet.

I attempt to describe how Westerkamp's subjectivity and movement enters her pieces. Westerkamp describes music as something that moves you, and soundwalking as different from that. I think that I do hear music at the juncture between listening and motion in time. And I also hear that motion through time as I listen in a soundwalk (whether recording or not): as I listen more intently, and focus, I feel myself start to move in response to the sound, bringing the microphone into a different perspective as I go. When we were in Queen Elizabeth Park, I felt Westerkamp respond to various sounds with her microphone, moving to intensify certain patterns and bring the microphone into a closer interaction with the sounds. This motion in time in response to listening is for me what characterizes a soundwalk: perhaps it could also be called a sound-dance. It is fundamentally soundwalking, soundscape work at the same time that it is something that

body), soundwalks (moving body) and sound journals (transitional movement). Field recording is similar to the approach taken by members of the World Soundscape Project team in their research. Either the recordist remains still, or positions a microphone in a particular location, then leaves.⁶¹ The resultant recording would have the least audible traces of the recordist's subjectivity: since she does not move, it is unlikely that the listener would hear her, unless the microphone is positioned close to the mouth. In a soundwalk recording, the subjectivity of the recordist is heard in how the recording moves through a space, leaving traces of the recordist's pacing and gestures in her walk. Sound journals are by their nature reflective: one is moved to create a sound journal to document a sound environment over time, or when encountering the unfamiliar (whether that unfamiliar sound is in a familiar environment or a strange one), then comparing the unfamiliar sound with what is known. Westerkamp creates sound journals as written accounts that she later associates with sound recordings made around the same time in that place. The sound journal bridges the strange and the well-known. Westerkamp notes that these three categories are not fixed: during a soundwalk, the recordist may stand still many times, and during field recording the recordist may walk through a place. Sound journals often include soundwalks and field recordings. I find the distinctions useful in thinking about how they relate to the traces of the recording body that we hear in the resulting recording.

Besides having important relationships with the lived and moving bodies of its inhabitants, places also have a holding power, a tendency to gather:

Minimally, places gather things in their midst—where "things" connote various animate and inanimate entities. Places also gather experiences and histories, even languages and thoughts. Think only of what it means to go

moves me. Composition in the studio is then a further intensification and extension of this initial experience, a more reflective meditation on it than I can manage in the moment of recording.

⁶¹ This latter approach is particularly effective for recording bird song when the birds might be unwilling to approach a recordist.

back to a place you know, finding it full of memories and expectations, old things and new things, the familiar and the strange, and much more besides. What else is capable of this massively diversified holding action? (Casey 1996: 24)

Westerkamp acknowledges the holding power of places in her musical works. Indeed, her description of the sounds of a place as its language implies culture within nature, the interweaving of memories, thoughts, lives and histories in these sounds. For example, in her description of "One Visitor's Portrait of Banff" she notes her own relation to this place through her family history. Her grandparents visited there in 1911, and in 1962, when she was sixteen, she visited Banff herself. It was on that trip to Canada that she met her future husband, which led to her immigration to Canada six years later:

I now have an audio portrait of Banff shaped in part by these memories. I used to think of a portrait as something definitive, framed, static, a face from a certain angle, something that captures a person in totality. This audio portrait tries to consider many aspects of Banff with open ears. At the same time, it allows listeners to construct their own portrait of the place. (Westerkamp 1994: 93)

While Westerkamp constructs an audio portrait from her own position and perspective, she wishes to leave it open enough that other listeners can create their own portrait.

Because places do have such holding power, each person's memories and thoughts will be different, and although these portraits may be similar in many ways, they will hold different points of focus for each listener. By analyzing Westerkamp's works using listener responses as an element of my analysis, I intend to describe some of these different points of focus.

It is here that I must depart from Casey's theorizing. Westerkamp's work is as much about dialogue as it is about place. This is another aspect of her assertion that the sounds of a place are like its language. The reason for learning a new language is to communicate with others: "Start by listening to the sounds of your body while moving. They are closest to you and establish the first *dialogue* between you and the environment" (1974: 19, my emphasis). While Casey implies a dialogue by focusing on the lived and moving human body in a place, he does not take up this issue explicitly. Westerkamp often refers to

dialogue: with the environment while recording, between recorded and processed sound in the studio, between the finished composition and the place that it refers to, between her perspective and those of other listeners. Her emphasis on dialogue reflects her desire to maintain relationships with her listeners and with the subjects of her recordings, whether human or other species, as is obvious in this quote from the first interview I did with her:

Cricket Voice is the cricket enlarged and slowed down and made into a musical piece and it's wonderful, but it's also funny when you think about it. I made a big deal about that experience of encountering this animal so close by, and I feel it's very important that we do that.... Just like photography gets into the patterns of natural environments or the close-ups of animals that we don't even know any more, if we also get into the close-ups of their calls *we really get to know them*, and we get a relationship to them again. You know you want to protect that sort of existence on an ecological level. I think it's very important to be able to do that. But let's be clear about the fact that it was two minutes. That animal is there for longer than that and *it knows its place* much better than I do and really all I'm doing is I'm bringing these two minutes out, and I'm highlighting them the way artistic work highlights certain aspects of our lives, amplifies them and gets us to think about things. But I want to be realistic, that it's no more than that. (Westerkamp interview with Andra McCartney, April 1993, my emphasis)

Westerkamp's respect for the cricket is grounded in the fact that it knows its place better than she, a visitor to its home, does. This respect affects the work that she does with its song, which she describes as part of the process of getting to know the cricket and its environment, part of her epistemology. In order to ground Westerkamp's dialogic approach to soundscape composition, I would like to survey epistemologies in the electroacoustic field as a whole, indicating how other composers think about their compositional subjects, and how work with recorded sound is placed within this field. This will be the subject of the next chapter.

Chapter Three

Knowing One's Place

"Know one's place: be respectful" (Pocket Oxford English Dictionary, 4th edition, 1964).

"Know or keep one's place: to recognize one's social rank, especially if inferior, and adjust one's behavior accordingly" (Webster's Unabridged Dictionary, 1989).

" ." (The Fontana Dictionary of Modern Thought, 1983, [absent] entry on place).

"She doesn't know her place." The charge, I remember, had nothing to do with knowing about the place where the subject lives and moves, in Casey's description of knowing a place (from the end of the last chapter). The idea of knowing one's place, in the social hierarchies of my English childhood, was to be better able to keep in one's place, to maintain the social order as it is. My first intention in this chapter is to describe what I know of the place of electroacoustic music, in terms of social rankings, especially as they relate to gendered categories. My intention is not to keep that place, but by mapping it using the tools of feminist epistemology, to facilitate social movement within and beyond its confines. My second intention is to describe a different sense of knowing one's place, as Westerkamp uses the phrase, which involves knowing about the place where a subject lives and moves, through listening and dialogue with its inhabitants in order to better understand the social, political and acoustic meanings of that place.

Electroacoustic Music and Radio Art

Hildegard Westerkamp describes herself as a "composer, educator, or radio artist" (liner notes to *Transformations*, 1996: 17). This chapter—and indeed the dissertation as a whole—focuses mainly on the first part of that description, Westerkamp as composer, specifically as a soundscape composer. The other two roles are also discussed, but only as they relate to the first. This seems to make sense since this is a music dissertation, and

composition is the most traditionally musical of these activities. It is a strategic, disciplinary decision. At the same time, Westerkamp is well-known in Canada and abroad as a radio artist, having been included in two major anthologies, both with international scope, published in Canada about radio and sound art.⁶² At the same time that she began to think of herself as a composer, she produced a program called "Soundwalking" at Vancouver Cooperative Radio. In an article about that program and her approach to radio art, she describes the similarities between radio art and music composition:

In some ways, making radio is like composing music. The same care for form and content has to be taken in creating radio as in creating a piece of music. The same questions arise: when to have sound and when to have silence; what sense of time to create; what sounds to select; what to say and how to say it; how to retain a listenership. (1994: 88)

While Westerkamp finds some affinities between radio art and composition, other sound artists have been concerned with de-fining the two, as in Dan Lander's introduction to

Sound by Artists:

The terms experimental music and sound art are considered by some to be synonymous and interchangeable. In fact, it is difficult to identify an art of sound precisely because of its historical attachment to music.... The 'useful limitations' that constitute and enrich a musical art practice, restrain and limit an art of sound. The stripping away of meaning from the noise of our world constitutes a refusal—fetishizing the ear, while ignoring the brain—to engage ourselves in dialogue with the multiplicity of meanings conveyed by the sound we produce, reproduce and hear. If a critical theory of sound (noise) is to develop, the urge to 'elevate all sound to the state of music,' will have to be suppressed. *Noise*—your lover's voice, a factory floor, the television news—is ripe with meaning and content distinguishable from the meaning and content of musical expression. It is *this* content that constitutes any possibility for an art of sound. (1990: 10-11)

⁶²Both of these were published by the Walter Phillips Gallery at the Banff Centre. *Sound by Artists* (1990) was edited by Dan Lander, and also includes articles by John Cage, Bill Viola, Alvin Lucier, Annea Lockwood, Daina Augaitis, Rita McKeough and several others. *Radio Rethink* (1994) was edited by Augaitis and Lander, including articles by Jody Berland, Christof Migone, Frances Dyson, Margaretta D'Arcy, Tetsuo Kogawa, and others.

Lander describes sound art as existing only precisely where it becomes different from music: musical sound is not noise, the content of sound art; it is only the meaningful content of noise that is to be considered as the possibility for an art of sound. He wants to distinguish between music and sound art, in order for sound art to be considered a separate and distinct discipline, and to do this he reconstitutes them as dichotomous: polar opposites with rigid and distinct boundaries.

By taking each quote out of the context of its article, I have also set up a dichotomy, underlined by my emphasis on Westerkamp's use of af-finity, the bringing together of concepts through their similarities, and Lander's focus on de-finition, the pushing apart of concepts through their differences. I have set up an opposition between two ways of thinking, and immediately they could be perceived as stereotypically gendered. Gendered stereotypes associate the feminine with nurturance and the ability to foster relationships, while masculinity is associated with the ability to individuate, separate and objectify.⁶³ Thus affinity (bridging through relationship) would be perceived as feminine, and definition (contrast through difference) would be perceived as masculine. This is a habit of thought that I am no longer happy with: to set up an opposition in which the terms are either implicitly or explicitly gendered. But it is particularly persistent—dichotomous thinking is an entrenched part of Western culture, and the implicit links between dichotomies and gender are equally entrenched, though often masked. In order to change my thinking and make the categories less entrenched, I want to bring attention to them, dig them over. If I consider Lander's work in more detail, I note that in a later publication (*Radio Rethink*) he no longer attempts to define sound art and music as dichotomous.

⁶³ This pattern of thinking is particularly problematic in feminist writing that aims to value abilities generally associated with femininity. For a good example of the difficult issues raised in such attempts to value stereotypically feminine traits, see Lorraine Code's discussion of problems raised by the idea of maternal thinking (Code 1991: 88-93).

And Westerkamp defines as well as noting affinities: she refers to herself as a "composer, educator, *or* radio artist" (my emphasis), separating one role from another.

Dichotomous Thinking and Gender

Lorraine Code, in her discussion of knowledge and subjectivity, notes that:

The objective/subjective dichotomy is but one of several dichotomies that have structured mainstream Anglo-American epistemology and have become a central focus of feminist analysis. (1991: 28)

Some other related dichotomies that Code lists are: theory/practice, reason/emotion, universal/particular, mind/body, abstract/concrete (1991: 29). Code does not question the value of distinction in itself, noting that sharp distinctions are valuable for clarification and analysis. But dichotomies imply a certain kind of distinction. She indicates that one problem with dichotomies is their formation of exclusionary constructs rather than complementary or interdependent ones: "In dichotomous thinking the opposed terms are like Aristotelian contradictories, which must conform to the principle of the excluded middle ... Continuity between the terms is a logical impossibility" (1991: 29). This means that they restrict inquiry too much, through the fixity of their boundaries, and their insistence that everything be either one or the other; in the two examples above, that a given piece be *either* music or sound art, that a given argument would display *either* affinity or definition, which leaves no place for concepts or experiences that are in between. This move makes the terms excessively simplistic, and unlike the complexities of the real world, where things are rarely so clearly distinguished from each other. It also leads to exclusion and misinterpretation of aspects of knowledge and culture that do not fit into the constructs of the dichotomy.

Another problem is that when dichotomies are used as the basis of argument, or are implicitly incorporated into the progress of an argument, value is attached to one *over* the

other, creating a hierarchy. Many of these hierarchical value judgments have become an accepted part of Western culture, working to structure thought in a fundamental, almost common-sense way. Not only are the value-judgments hierarchical, they are also often gendered, at least in their historical genesis, often in our implicit understanding of them. With reference to the set of dichotomies listed above by Code, she notes that in traditional epistemology, universality is valued over particularity, theory over practice, reason over emotion, mind over body:

They demarcate a set of categories—the left-hand one of each pair—by which knowledge is distinguished from aspects of experience deemed too trivial, too particular, for epistemological notice. The alignment of the right-hand terms of these pairs with (stereotypical) femininity is well established. Hence there are good reasons for feminists to engage critically with the dichotomies and to take issue with the political assumptions they sustain about women's lack of cognitive authority. (1991: 29)

The origins of these dichotomies in the beginnings of Western philosophy are discussed by Genevieve Lloyd, who traces the history of western ideals of reason, and its association with masculinity. She begins with a discussion of the Pythagorean table of opposites: limited/unlimited, odd/even, one/many, right/left, male/female, rest/motion, straight/curved, light/dark, good/bad, square/oblong.

'Male', like the other terms on its side of the table, was construed as superior to its opposite; and the basis for this superiority was its association with the primary Pythagorean contrast between form and formlessness. (1984: 3)

These principles structured dominant modes of Western thought that informed later philosophers' work. Although the definition of masculinity has not remained a constant over the years, conceptions of reason have varied to remain in line with conceptions of masculinity. The Pythagorean principles and their later variations in the philosophies of such important thinkers as Aristotle, Descartes, Bacon and others still affect everyday thinking about what counts as reason, as well as common cultural stereotypes of femininity and masculinity. This persistence of dichotomous thinking leaves feminists

with a difficult situation: either to invoke the dichotomies uncritically or merely to invert their relative value can also bring to mind their associated stereotypes, and thus strengthen them. And if these dichotomies are not discussed, they may be ignored completely, while they continue to structure thought at a deep level.

The objective-subjective dichotomy is particularly important in decisions about the ideals of reason, which designate who knowers can be, what they can know, and whose claims to knowledge can be the most authoritative (Code: 1991: 119). In traditional epistemology, it is objective knowledge that is most valued. Dichotomous thinking ensures that the alternative to objectivity is construed as "the vagaries of subjectivity gone wild" (Code 1991: 30).

Objectivity has historically been associated both with masculinity and with scientific knowledge: traditionally, science is perceived both as objective and as value-neutral, with objects of knowledge separate from knowers and unaffected by the knowing process. Paradigmatic status has been given to physics, which has been perceived as removed from all social influence. Sandra Harding notes that physics is concerned with simplified, generalized and abstracted systems "conceptualized as self-contained and deterministic" (1986: 34).

In other fields of knowledge as well as science, types of knowledge concerned with abstracted, objective and simplified systems removed from social influence have also acquired paradigmatic status. For instance, as I noted at the beginning of the last chapter, in Western art music, absolute music has traditionally held paradigmatic status. Absolute music is defined as self-contained and self-referential:

Absolute music must be understood as pure form, according to canons that are internal to itself ... Music becomes absolute by being an 'objective' art,

and it acquires objectivity through its structure. To say of music that it is objective is to say that it is understood as an object in itself, without recourse to any semantic meaning, external purpose or subjective idea. (Scruton 1980: 26)

Absolute music is understood as objective, acquiring this characteristic through its pure, formal structure.

The veneration of the methodology of physics as embodying an ideal in epistemology works to limit what counts as knowledge, which is defined as what can be objectively known and verified to the exclusion of what is believed or felt. Because religious, aesthetic, and ethical claims could not be verified:

they reduced to expressions of emotion, to mere expletives with no more epistemic status than "boo" or "hurrah." Epistemologies that bear the traces of this ideal still commonly map out their terrain so that aesthetics, religion, ethics, and, analogously, other forms of qualitative inquiry, are relegated to places beyond the boundaries of epistemological evaluation, places where "it's all a matter of opinion." (Code 1995: 163)

What could be known objectively about an artistic field, following this traditional epistemological model, would be facts such as dates of birth for artists or composers, or what instrumental forces, compositional and harmonic structures, or media they use. Aesthetic or ethical claims about their work could not be considered seriously as knowledge.

The traditional separation of aesthetics, ethics and epistemology can limit a search for knowledge. For instance, how do I know what electroacoustic music is? I can search for a definition, for examples of such music in the field, or read descriptive articles about it. My contention is that these artifacts are affected by what counts more or less as electroacoustic music, by who counts more or less as electroacoustic composers. Aesthetics, ethics, and epistemology are intimately entwined in this search. I want to look

behind the definitions and descriptions to find how these artifacts are affected by the epistemologies of practitioners.

My strategy will be to focus on a time period which is crucial to electroacoustic music. Shortly after the Second World War, recording on tape became feasible as a musical possibility. While there had been many earlier experiments in electroacoustic music, such as John Cage's exploration of live electronic performance in the *Imaginary Landscapes*, as well as the invention of electronic instruments such as the *Theremin* and the *ondes Martenot*, recording on tape opened up the world of recorded sound to a wide range of composers.

The categorization of electroacoustic compositional thinking from this period persists in contemporary thought about electroacoustic music. I will first describe how a dichotomous categorization from this period—that between *musique concrète* and *elektronische Musik*—continues to structure thought about electroacoustic music to the present, particularly how it affects thinking about soundscape composition, the genre within which Westerkamp works. Then, I will discuss the period from 1948 to 1960 through the stories of four important figures from that time: Pierre Schaeffer, Pierre Boulez, Karlheinz Stockhausen and John Cage. When I was doing research on these four figures, I was fascinated by the way that interviews with, and letters by these composers revealed much more about their ways of thinking than official biographies or electroacoustic texts. The latter sources said little about the origins of the composers' ideas: they were limited in general to the kind of knowledge traditionally regarded as objective: dates of composition, descriptions of pieces, instrumental forces, compositional structures. The interviews and letters gave more explicit clues about how and why these composers developed specific aesthetics, and how these aesthetics then

came to define what counts as electroacoustic music. By doing this, I am following Lorraine Code's proposal:

Taking as one of its catalysts Ruth Hubbard's claim that "Every fact has a factor, a maker," my proposal says that the same is true of theories and experiences, whose "makers" are enabled and constrained by the situations in which they find themselves, and which they need to understand. It exhorts these "makers" to announce themselves, and examine the implications of their historical-geographical-cultural locations ... Taking stories into account eschews individualism, and dispels any illusion that "experiences" come parcelled in discrete propositional units. (1995: 168)

In interviews and letters, these composers tell stories, indicating how they were enabled and constrained by situations, how they located their ideas. My aim in focusing on these four particular composers is not to re-construct an already well-known period in the history of electroacoustic music, but rather to examine in some detail the relationships among the ideas and concerns of these four influential composers, particularly with regard to their attitudes towards compositional control.

Another part of my project in this chapter is to consider the stories of some women composers within electroacoustic music, to consider how *their* thought and compositional work is enabled and constrained by their situations. Here, my discussion will focus on Daphne Oram, an English composer of the same generation as Boulez and Stockhausen and Pauline Oliveros, an American composer who worked with John Cage and influenced Hildegard Westerkamp. The chapter will end with a consideration of Westerkamp's epistemology as it relates to epistemological currents within electroacoustic music in general and soundscape composition in particular.

RTF vs. WDR

Initially, the first two electroacoustic studios to open, the Studio d'Essai at the Radiodiffusion Télévision Française (RTF) in Paris in 1942, and the electronic studio at

Westdeutscher Rundfunk (WDR) in Cologne in 1950, were antagonistic to each other and described themselves as opposites. Pierre Schaeffer of RTF defined the music he was making, *musique concrète*, as having direct contact with sound:

Je me méfie des instruments nouveaux, ondes ou ondiolines, de ce que les allemands appellent pompeusement l'electronische Musik" [sic]. Devant toute musique électrique j'ai la réaction de mon père violoniste, de ma mère chanteuse. Nous sommes des artisans. Mon Violon, ma voix, je les retrouve dans tout ce bazar en bois ... et dans mes trompes à vélos. Je cherche le contact direct avec la matière sonore, sans électrons interposés.

[I mistrust new instruments, waves or waveforms, what the Germans pompously call *elektronische Musik*. Before all electrical music I have the reaction of my father the violinist, my mother the singer. We are artisans. My violin, my voice, I meet them again in this bazaar of wood ... and in my truck horns. I seek direct contact with sonic materials, without electrons interposed. (1990: 26)

Schaeffer sets up a dichotomy between his music and that of the German studio in explicit terms. While his music is related to performance (my father the violinist, my mother the singer) through direct contact with known materials, he describes the other studio as only concerned with electrical waveforms, conceived as new instruments, and fundamentally different. By emphasizing personal relationships with his family, known sonic materials and his instruments, he is showing a connection with stereotypically feminine concreteness, relationship and subjectivity, and distancing himself from stereotypically masculine abstraction and objectivity.

How accurate was Schaeffer's definition of the other studio? Initially, the WDR studio did want to sever connections with a known sound world. They used the serial technique⁶⁴ of composition employing simple sine tones produced by oscillators rather than recorded sounds to make *elektronische Musik*::

⁶⁴ A definition of serialism: "For [the European serialists of the early 1950s] serialism was a compositional technique wherein every aspect of a composition--not only notes, but also loudness, timbre, duration, type of attack, and every other imaginable parameter of a sound--could be based on and derived from the same row, or *series*, thereby producing a kind of total structure wherein every detail was organized" (Chadabe 1997: 37).

In electronic serial music ... everything to the last element of the single note is subjected to serial permutation ... Today, the physical magnification of a sound is known...as exact scientific data ... Talk of 'humanized' electronic sound may be left to unimaginative instrument makers. (Eimert, 1955: 8)

Note that this definition of *elektronische Musik* by Herbert Eimert, one of the original practitioners, does not explicitly set up an opposition with the Paris studio. However, he hints at another camp by mentioning talk about "humanized" electronic sound which is "unimaginative." Also, Eimert makes the strategic move of associating *elektronische Musik* with scientific knowledge, the ability to know the physical magnification of sound as exact data, or objective knowledge, a stereotypically masculine domain.

A Generative Distinction

This artificial distinction between the two studios disappeared within a few years. Although his first pieces used recognizable sound sources, Schaeffer began to manipulate the envelopes of sounds in the studio so that their sources in the known sound world became unidentifiable. Composers at the WDR studio began to use acoustic as well as electronic sources, and extended compositional technique beyond serialism. Their approach has opened up considerably since that time, to the extent that recently, two CDs of urban soundscape compositions, by Michael Rösenberg and Hans Ulrich Werner, (*Lisboa*, 1994; *Madrid*, 1995) were produced by WDR. Yet this initial distinction between *musique concrète* and *elektronische Musik* seems to be maintained in the organization of many electroacoustic music textbooks, even though by the time of publication of these books the distinctions between the musical styles had diminished greatly. I have surveyed the contents of many major electroacoustic texts, which continue to organize electroacoustic music according to this original distinction.

Definitions

Many definitions of electroacoustic music in the texts are very general. Deutsch defines electroacoustic music as: "Music made in whole or in part by electrical instruments, amplified or electronically modified instruments, recording devices or computers" (1993: 5). This definition is similar in some ways to Otto Luening's definition of electronic music:

Electronic music is a generic term describing music that uses electronically generated sound or sound modified by electronic means, which may or may not be accompanied by live voices or musical instruments, and which may be delivered live or through speakers. (Luening 1975: 2)

Chadabe defines electronic music as "all music made with electronics, whether specifically with computer, synthesizer, or any other special equipment" (1997: x). All of these definitions include the use of electrical instruments or electronics as necessary. All are also general enough to include popular recorded music that uses amplified instruments and sounds modified by electronic means. None of these definitions specifically includes recorded environmental sounds, yet none excludes them. Jon Appleton specifically includes *concrète* or recorded sounds in his definition: "When referring to electronic music I mean music composed by using electronic instruments and *concrète* sounds by living composers and by computers" (Appleton 1989: 69). It is easy to see why the terms 'electronic music' and 'electroacoustic music' become confused. It is difficult to perceive from the preceding definitions why the two designations are used: they seem to refer to the same area, and it appears to be a very open field.

The most elaborate set of textbook definitions is given by Barry Schrader. He defines *musique concrète* as "any electroacoustic music that uses acoustic sounds as source material" (1982: 2). He later discusses some soundscape compositions in the section on *musique concrète*. Electronic music is "music in which the source, or original, sound

material has been electronically produced. This is usually done with electronic *oscillators*" (1982: 2). Computer music is "a type of electronic music in which a computer is used to generate the sound material" (1982: 2). He also delineates tape music from live electronics and creates a graphic taxonomy of all types.

The only time that I saw a definition that specifically excluded some sounds was in the introduction to a book on computer music. Defining the focus of the book, John Pierce states:

When scientists study animals in a natural environment, they are much concerned with the animal's ability to perceive and interpret the sounds in that environment.

Man does not live in the wild; he lives and functions in a man-made environment. He listens most attentively to highly organized, man-made sounds. These are chiefly the sounds of speech and music. (1989: 2)

At the end of the introduction, Pierce returns to this concept: "While this is a book about musical sound, it is also a book about one aspect of man's civilization, about his environment of man-made sound, and about how he can understand and manipulate that environment" (1989: 4). By restricting his definition of 'man-made' environments to speech and music and saying that man-made sound is the subject of the book, he excludes recorded environmental sounds from the field of computer music. The use of the term 'man-made' in these quotes may be merely an anachronism, using the term 'man' to mean 'human', even though such language seems odd in such a recent publication. I should point out, however, that all of the articles in this book were written by men, the gender which predominates by far in computer music. Also, the editor is by no means willing to try for gender-neutral or gender-sensitive language.

The textbook definitions, with the exception of Pierce, tend to be general and encompassing. Pierce establishes a hierarchy where speech and music are worthy of

consideration as computer music, and environmental sounds are not. This is not exactly like the original split that I have described between *musique concrète* and *elektronische Musik*, even though it excludes a great part of the materials of *musique concrète*. It was only when I examined the contents of these textbooks that I could perceive the extensions of the original split, and the value that continues to be attached to it, more clearly.

Textbook Contents

I have reviewed the contents of twelve texts. Nine of these texts specifically discuss tape music. The other three (two on MIDI, and one on more general computer music) are included for comparative purposes. The titles and chapter headings for these books are listed in Appendix C.

First, I note the titles of these books: of the nine that discuss the field as a whole, six use the word 'electronic', including the most recent book published in 1997, while only three use the more inclusive term 'electroacoustic'. The use of the term electronic to refer to the field has several implications. It continues the confusion between electronic and electroacoustic: a library search on the term electroacoustic might not reveal these books, yet their subject matter includes electroacoustic music. Joel Chadabe chooses to use the word 'electronic' as the generic term, while acknowledging that "in Germany it may cause confusion with *elektronische Musik*, which refers specifically to the philosophy of the Cologne studio in the early 1950s" (1997: x). I would argue that this confusion might exist outside of Germany as well. The choice of the word "electronic" erases the word acoustic from consideration, which could lead to the belief that electronic music is the norm of the field, and work with acoustic sources is an aberration, or subsidiary. With an established conceptual split between tape music and electronic music, using the term 'electronic' privileges it over tape music, ascribing greater value to the term which has traditionally been associated with objectivity, scientism and masculinity.

Now, I consider the organization of sections and chapters. Tape music and/or *musique concrète* almost always appears at or close to the beginning of each book or repertoire section, except in the cases of the books on MIDI and computer music, where it is only considered briefly as a secondary topic (Jacobs and Georghiades, Newquist, Mathews and Pierce). In the texts by Griffiths, Horn, Mackay, Manning, Pellman, and Schrader, *musique concrète* and electronic studio music are artificially separated, with electronic studio music following tape music yet in a separate category. The idea of educational progress from introductory to more complex ideas is implicit in the general tendency to place concepts considered simpler by the author at the beginning of an educational textbook and ideas considered more complex near the end. Thus the placement of tape music near the beginning and electronic followed by computer music near the end can encourage the belief that tape music is simple and readily understood, and electronic and computer music more complex, less readily known. The idea of tape music as an introductory stage extends into some authors' commentary on it. Deutsch (1985) suggests that *musique concrète* should be used as an educational introduction to working with tape, before students move into electronic synthesis.

Why is *musique concrète* perceived as simpler? The preface to Pellman may provide a clue:

Since its origins nearly a half-century ago, the field of electroacoustic music has passed through a remarkable series of changes. New instruments and techniques, based upon the most recent technological innovations, have appeared regularly. These often relegated older electroacoustic instruments to the status of relics. (1994: xi)

Deutsch also claims that technical innovation is important: "Music, the most abstract of mankind's arts, has always been close to its technological developments" (1993: 5). The use of tape becomes one "development," improved upon by the use of oscillators (even

though tape and oscillators were used at the same time), then synthesizers, computers, and MIDI. Pellman privileges the most recent developments, the topics near the end of the book, by relegating earlier developments to the status of relics, outmoded and irrelevant to current practice. The author who most explicitly places emphasis on innovation is Paul Griffiths. Discussing early work by Stockhausen, he says:

the *Studien* are fascinating and beautiful; at the very least they demonstrated that the future of electronic music was to lie more with the creation of the new than with the *musique concrète* technique of readjusting the old." (1979: 14)

At the beginning of the chapter on electronic music, entitled "out of the unknown," he states "Much of the most interesting tape music has come not from the use of natural sounds ... but rather from the synthesis of new material by electronic means" (1979: 42). In these two quotes, he indicates his belief that to work with unknown or new sources in electronic music is more interesting and worthwhile than to work with existing sources, as in *musique concrète*.

Innovation is particularly important in technological culture: Kathleen Woodward notes that technology is ageist, with newness and youth favoured over age (seen as the opposite of both, 1994: 61). When I was interviewing women composers in 1994, several noted that they would not even enter pieces for competitions unless they used the most up-to-date equipment and techniques. Tape music is perceived as old technology, less important or valuable than new interactive approaches using computers.

The idea of development is also tied to an idea of exploration. Griffiths's chapter titles, with "out of the known" for *concrète* music, and "out of the unknown" for electronic music, moves from conceptions of the familiar to the unexplored. Manning's use of the terms "developments" and "new horizons" in his section titles explicitly links development to an exploration of new territory, which is in this case the design of the

voltage-controlled synthesizer. The idea of progress through exploration of unknown areas is made explicit in the two texts by Manning and Griffiths through the metaphor of new horizons and references to "the unknown." Technological culture, whether in music or in other disciplines, values exploration. And, as Teresa de Lauretis points out, the exploring hero who crosses new frontiers is stereotypically male:

As he crosses the boundary and "penetrates" the other space, the mythical subject is constructed as human being and as male; he is the active principle of culture, the establisher of distinction, the creator of differences. (1987: 43)

Those genres associated with exploration, the unknown, and new horizons are thus stereotypically masculine. These genres tend to be placed later in electroacoustic texts, associated with an idea of development, and accorded higher status.

Comprehensiveness is also a factor in determining the relative value of genres.

Sometimes *musique concrète* is not discussed as fully as others. In Pellman (1994), works by Morton Subotnick, David Jaffe, Milton Babbitt, Karlheinz Stockhausen, and Edgard Varèse are discussed in detail, while those by Pierre Schaeffer, John Cage and the team of Vladimir Ussachevsky-Otto Luening are mentioned briefly. Of the five works discussed in detail, the first is a piece for analog synthesizer, and the next two are computer music. The Stockhausen and Varèse works are both tape pieces. Stockhausen's *Gesang der Jünglinge*, which uses both electronically-generated and recorded sounds, is discussed with reference to this integration of sources as well as his use of serialism at the Cologne studio. The *Poème Electronique* by Varèse is described mainly with reference to his use of spatialization in the Philips Pavilion as well as his approach to timbre. The questions following these tape pieces ask the student to pay attention to various tape manipulation techniques, and to compare them with other methods. Several tape works by Cage, Schaeffer and Ussachevsky-Luening are discussed only briefly, in a sentence or two, in the context of a discussion of the composers' aesthetic approaches. Questions are

included for the Ussachevsky-Luening examples, once again focusing on tape manipulation techniques. No questions are included for the Cage or Schaeffer examples. This omission may lead a student to believe that in these cases, there is nothing worth asking questions about, or that the pieces are not worthy of extended discussion. The focus on tape manipulation techniques in the other examples could give the impression that these techniques are the most important facets of the compositions.

The organization of many electroacoustic music textbooks appears to encourage a division of the field between tape music from recorded natural sources, often called *musique concrète*, and music from electronic sources. The fact that the field as a whole is often called electronic music, the placement of music from recorded sounds close to the beginning of many books, and the language of discovery all combine to create the impression that work with recorded sounds is a predecessor or subsidiary of electronic music, and is less advanced. Electronic music, associated since its inception with the stereotypically masculine approaches to knowledge of objectivity, scientific thinking and technical exploration, is valued over tape music in this field.

Soundscape Composition

The emphasis on technical manipulation, new horizons and instrumentation influence the perception of soundscape composition as a category within electroacoustic music.

Soundscape composition is a particular approach to the compositional use of recorded sound, based on the idea of a soundscape. The basis of the word "soundscape," a term credited to composer R. Murray Schafer, is the concept of an environment of sound.

Schafer defines soundscape as:

The sonic environment. Technically, any portion of the sonic environment regarded as a field for study. The term may refer to actual environments, or to abstract constructions such as musical compositions and tape montages, particularly when considered as an environment. (1977: 275)

By sonic environment, Schafer is referring to "the ever-present array of noises, pleasant and unpleasant, loud and soft, heard or ignored, that we all live with" (1977: jacket notes). Recording equipment makes any sound in the world potential musical material: it can be isolated from its context and treated as a sound object, as in *musique concrète*, or the interplay of sounds within a specific environmental context can be the focus of attention. Schafer's statement in his definition that abstract constructions such as musical compositions are soundscapes *particularly when considered as an environment* refers to the importance of context in soundscape composition.

This focus on relationships between composer, listener, and sound environment grew out of Schafer's soundscape research, which he conducted with other composers. Hildegard Westerkamp, as well as several other composers, worked with Schafer in the context of the World Soundscape Project (WSP) at Simon Fraser University in the early 1970s. This project, founded and directed by Schafer, began with his concerns about noise pollution, and received funding to undertake major research projects of soundscapes in cities and villages of Canada and Europe.⁶⁵ This work resulted in several research and educational publications about soundscapes by members of the research team.

These composers continue to be involved in the research and education started through the World Soundscape Project. The Tuning of the World Conference in Banff in 1993 led to the founding of the World Forum for Acoustic Ecology (WFAE), with its head office at Simon Fraser University. Both Barry Truax and Westerkamp were among the founding members of the WFAE. The aims of acoustic ecology are often implicated in soundscape composition. Westerkamp, for instance, says that she likes "to position the microphone very close to the tiny, quiet and complex sounds of nature, then amplify and highlight

⁶⁵ see Keiko Torigoe (1982) for a discussion of the research and underlying principles.

them...[so that] they can be understood as occupying an important place in the soundscape and warrant respect" (1996: 19). Although Keiko Torigoe (1982) focuses mainly on the research and education components of the World Soundscape Project, mentioning soundscape compositions only in passing, several such compositions were made by project members, many of whom were composers. These compositions were assembled into ten one-hour radio programs for the CBC, entitled *Soundscapes of Canada* (1974).

In his 1996 article entitled "Soundscape, Acoustic Communication and Environmental Sound Composition," Truax discusses the range of compositional approaches in this radio series (1996: 54-58). The collectively authored "Summer Solstice" documents two minutes of each hour of a summer day and night, recorded beside a pond near Vancouver, giving a representation of condensed time. "Soundmarks of Canada," by Peter Huse, features the juxtaposition of significant sounds associated with particular places in Canada, condensing space. Several pieces included electronic transformations of sounds using a range of classic analog studio techniques. Truax notes that sounds still remained recognizable and within context in these pieces, such as Bruce Davis's "Bells of Perce" and Barry Truax's "Soundscape Study." Because of the WSP commitment to bring together research, education, and composition, these soundscape compositions are presented by the composers in the context of discussions on research and education within the radio programs, that also include a range of listening exercises and lectures by Murray Schafer.

Schafer, Truax, and Westerkamp all continue to compose with environmental sound in context. Schafer's environmental work is acoustic, rather than electroacoustic. For example, *Music for Wilderness Lake* (1981) uses traditional concert instrumentation within a wilderness setting. Truax works with granular synthesis, a computer process that

stretches sounds to create slowly moving textures, revealing complexities within the sound that otherwise would not be heard. Since 1990, he has used environmental sound increasingly with this process, in works such as *Pacific* (1990), *Dominion* (1991), *Basilica* (1992), *Song of Songs* (1992), *Sequence of Later Heaven* (1993) and *Powers of Two* (1995). Westerkamp has done the most extensive work in electroacoustic soundscape composition of the three. In fact, all of her work is with environmental sound in context, usually recorded by herself in specific locations. Many of her earlier pieces, such as *A Walk Through the City* (1981), and *StreetMusic* (1982) were originally broadcast on Vancouver Cooperative Radio. Her *Harbour Symphony* (1986), commissioned by the Canada Pavilion for Expo '86, was probably the largest environmental music event ever to be mounted in Vancouver. Some of her more recent works, such as *Cool Drool* (1983) and *India Sound Journal* (1993) also include live performance. Westerkamp (1994) notes that soundscape composition involves a balance of work in the studio with work on location. Techniques of field recording, such as learning how to listen to sound environments, placement of microphones, protecting equipment from difficult weather conditions, learning how to move through a space with the microphone, and soundmaking in response to environmental sounds, are as important as studio work with the sound.

The composers at the World Soundscape Project had an excellent climate for thinking about and working with environmental sound in context. But they were not the first to do this kind of composition. Several other composers around the world had also worked with soundscapes, although they may not have used that name. Many were inspired by the early work of John Cage to pay attention to all kinds of sounds within specific environments. In 1954, Luciano Berio and Bruno Maderna composed a piece specifically for radio broadcast, *Ritratto di Città*, a sound portrait of Milan during the course of a day. In France, Luc Ferrari's *Presque Rien No. 1* (1970) focused on the time of daybreak and

the environment on a beach, using a similar process to time-lapse photography. In the same year, in the United States, Alvin Lucier's *I Am Sitting In A Room* (1970)⁶⁶ used multiple repetitions of a recording process to highlight the relationships between a room resonance and a recording. A text, beginning with the words "I am sitting in a room different from the one you are in now," is recited onto tape. Then that recording is played into the same room, and re-recorded. This process is repeated many times, and each time the resonances of the room become more apparent, as the text itself is gradually masked. Americans Pauline Oliveros and Annea Lockwood have both worked with particular sound environments. In 1974, Pauline Oliveros published *Sonic Meditations*, a set of listening exercises of a similar type to the "ear-cleaning" exercises advocated by Murray Schafer. Recently, she has formed the *Deep Listening Band*, whose members David Gamper, Stuart Dempster, Joe Giardullo, Thomas Buckner and Oliveros herself play together in places with interesting acoustics. Annea Lockwood created *A Sound Map of the Hudson River* (1989), an aural journey which paid attention to the changing sonic textures of every part of the river from source to mouth.

The liner notes for Luc Ferrari's *Presque Rien No. 1* (1970) describe a similar focus on the experience and memory of the listener as that intended by the Vancouver soundscape composers:

Instead of forcibly eliminating every trace of the origins of the material which has been taken from reality, Ferrari uses its reference to reality in order to appeal to the hearer's experience and imagination...an undistorted portrayal, although in fast motion, of daybreak on the beach, it is electroacoustic natural photography, in which Cage's respect for reality is crossed with the dream of a sounding 'minimal art.'(1970: unpaginated)

⁶⁶Several pieces by the Sonic Arts Union (Alvin Lucier, Gordon Mumma, David Behrman and Robert Ashley) interacted with the performance space, for instance Mumma's *Hornpipe* (1967) and Lucier's *Vespers* (1968). I choose Lucier's *I Am Sitting in a Room* for discussion here because it brings attention to the place of performance through the text.

While the World Soundscape Project compositions have not been discussed in any electroacoustic textbook,⁶⁷ Ferrari's piece has been mentioned in some. A discussion of *how* it is mentioned will shed some light on how soundscape composition is positioned within electroacoustic music.

In Barry Schrader's discussion of the piece, he notes Ferrari's use of cutting and splicing to reduce the time of the original recording, and also says that "he has made the insect-like sounds that enter during the middle of the piece slowly increase in volume" (1982: 55), a manipulation that Ferrari does not record in his liner notes for the piece (he says that he only decreased the length of the recording). When Schrader refers to these sounds as "insect-like," it is clear that he is unaware that they are recordings of actual insects, rather than simulations. An increase in volume of certain insect sounds would naturally occur after daybreak. Is it possible that Schrader speaks of this as a manipulation in his desire to make sense of the piece? Since Schrader categorizes his text in terms of the techniques used (in this case cutting and splicing), he seems to think in terms of technique more than intent or aesthetics. As I noted earlier, it is not only Schrader who focuses on technique: within the field of electroacoustic music, technical knowledge is valued highly.

Still, Schrader's description is much more accurate than that of Manning, who states:

Presque Rien No. 1 is an excursion into the sphere of organized collage using a wide variety of natural environmental sources such as birds,

⁶⁷I have discussed elsewhere how little attention Canadian electroacoustic composition as a whole has received in the electroacoustic literature (McCartney 1994: 15-17). Newquist, in *Music and Technology* (1989), does not mention Canadian work at all. While Deutsch (1993; 1985), Mackay (1981) and Griffiths (1979) do make references to some Canadian work, it is either to early work by Hugh Le Caine or Norman McLaren, or to the University of Toronto studio. Manning mentions Murray Schafer briefly and inaccurately: he says his work is "notable for its emphasis on electronic music for school and colleges" (1993: 186). Manning discusses Barry Truax's development of the POD computer music system of granular synthesis (1993: 247-8). Chadabe (1997) also describes Truax's development of granular synthesis, mentioning that Truax uses recorded sounds without referring to soundscape composition or the WSP.

footsteps, seaside sounds, and children's voices. As the work progresses, the source elements, which remain largely untreated in themselves, become submerged under a growing stream of noise components which grow in density, eventually masking the environmental elements completely. (1985: 161)

In this description it sounds as though the composer has juxtaposed a number of disparate environmental elements and constructed noise components in a manner which pays no attention whatever to context. Again, this misinterpretation seems to be based in accepted knowledge about what constitutes electroacoustic music. Since the norm in both *musique concrète* and *elektronische Musik* is that sounds are to be treated as sound objects, discrete entities, then it would make more sense to hear a tape piece as using source elements and noise components that are selected and collaged together, rather than hearing it as an approach to framing and condensing a particular sound environment.

These discussions of Ferrari's work misinterpret his compositional intent, technique and aesthetic because his approach does not fit within the accepted norms of the field. A more plausible description of Ferrari's work can be found in a discussion of electroacoustic music by Simon Emmerson (1986: 17-40). Emmerson understands Ferrari's compositional intent to make listeners more aware of their acoustic environment through framing it. But his categorization of Ferrari's work makes it seem less musical than other styles. He categorizes electroacoustic works along two axes: from aural discourse to mimetic discourse, and from abstract syntax to abstracted syntax. Emmerson defines aural discourse as "'abstract musical' substance ... our perception remains relatively free of any directly evoked image" (1986: 19). He defines mimesis as "the imitation not only of nature but also of aspects of human culture not usually associated directly with musical material" (1986: 17), noting that mimesis has previously been known as programme music, in distinction from absolute music, which could be associated with his term, "aural discourse." The use of the word aural as an opposite of the word mimetic implies that mimetic discourse is not aural, that the imitation of nature is less aural, less musical than

aural or abstract musical discourse. The imitation of nature is also discussed together with 'unmusical' aspects of human culture such as religious symbolism.

His second axis is abstract and abstracted syntax.⁶⁸ Emmerson defines abstract syntax as:

the creation and manipulation of *a priori* shapes and structures by the composer. Serial composition is an important part of, but by no means alone in, this field. From the use of star maps to mystical number grids and formulas the use of principles not derived from the sound materials themselves all fall into this category." (1986: 22)

Abstracted syntax derives from the ordering of the sound materials used by the composer:

"Schaeffer's *Traité des objets musicaux* is an attempt to establish rules for the combination of sounds, abstracted from an analysis of their perceived properties. This interdisciplinary approach is essentially empirical" (1986: 21). Here, abstract syntax is associated with *a priori* structures, and abstracted syntax with the sound materials themselves. However, Emmerson does not point out that syntax derived from the sound materials is more concerned with auditory perception (and therefore more aural) than abstract syntax based on numbers or charts. So neither of these poles is associated with musicality in his discussion, unlike in the first axis.

In his final section, on music in which mimetic discourse is dominant, Emmerson states that:

Stockhausen's *Telemusik*, Trevor Wishart's *Red Bird* and Luc Ferrari's *Presque Rien no. 1*...have much in common. All have aims apparently outside those traditionally accepted as 'music': the Wishart and Ferrari, overtly in terms of political or social issues, the Stockhausen in terms of an attempt to integrate many disparate musics of the world. (1986: 34)

⁶⁸ The use of the word syntax here might create an expectation that the aural-mimetic axis is concerned with vocabulary and rules of order. The use of the term discourse for the first axis is somewhat confusing, since discourse usually refers to a conversation or work as a whole, taking account of vocabulary, syntax, meaning, context and speaker's position.

Emmerson does not explain how Ferrari's *Presque Rien no. 1* is explicitly social or political, unless he means that to encourage the audience to listen to the sound environment is more social-political than musical: "This focusing and framing process using *narrative* natural sound sources, while respecting the autonomy of the original sounds, may be used therefore not to obscure but to heighten our awareness of the environment" (1986: 38, my emphasis). There is nothing in Ferrari's liner notes that indicates a narrative in this specific piece. Although Ferrari has described his approach elsewhere as an anecdotal style (Emmerson 1986: 43), he does not suggest a particular narrative for this piece, except to note that the recording was made at daybreak.

Emmerson says at the end of his article that his discussion refers primarily to those works in which timbre is more important than pitch relationships. He has not discussed works

which retain an 'instrumental' emphasis on pitch relationships. Almost all pitch-oriented electroacoustic music belongs in the first area we examined: the discourse is exclusively aural ('abstract musical'), the syntax almost always entirely abstract (often serial at root) not based on intrinsic sound-object relations. (1986: 39)

If we accept this statement, and note the larger number of examples in Emmerson's discussion of the aural-abstract area than in the other categories, it would seem that the norms of electroacoustic music emphasize abstract musical vocabulary and abstract syntax, which would make soundscape music abnormal in this genre, and thus less likely to be recognized and valued, to be explored deeply in electroacoustic courses, or to be readily accessible to emerging composers as a model.

Citron points out that norms are not only inscribed through definitions, but also through frequency of appearance as examples of the category:

The traits considered basic to the genre — those that define the particular genre and distinguish it from others, *and those that populate many*

examples of the category — will become norms, whether stylistic, performative, or social, that provide the guiding framework for future forays into the category. (Citron 1993: 124, my emphasis)

I have listened to every anthology entitled *Electroacoustic Music* or *Electronic Music* available through the York University and University of Toronto libraries, to see how prevalent soundscape compositions are in these anthologies. The results of this research, including a discussion and annotated discography, appear as Appendix D. Soundscape compositions do not figure prominently in most of these anthologies, although they are more prevalent in Canadian anthologies than elsewhere, perhaps because of the important work in this area of the World Soundscape Project and the association of national identity with a connection to the environment, as I discussed in Chapter Two. In the field as a whole, though, soundscape composition is not included in many examples of the category, so is unlikely to provide a guiding framework for electroacoustic music on an international basis.

Because soundscape composition is ignored or misunderstood as a genre within electroacoustic music, soundscape composers tend to receive less notice than other composers. For instance, Barry Truax's work is discussed in texts largely in terms of the computer processes that he employs rather than his approach to soundscapes. Although Ferrari's work is mentioned briefly in some texts, and discussed in a few, it is often misunderstood with reference to his intent as well as the processes used. Soundscape composers' emphasis on listening to everyday sounds in context is still not really understood within a genre in which new technical processes and abstract discourse predominate in most examples of the category.

I have indicated how the generative dichotomy between *elektronische Musik* and *musique concrète* continues to structure thought about the categories of electroacoustic music, including the placement of soundscape composition. How does this affect the careers of

individual composers and the acceptance of their music? To begin this discussion, I want to return to 1948, and discuss relationships among the careers of four important composers of electroacoustic music during this crucial period in its history: Pierre Schaeffer, Pierre Boulez, Karlheinz Stockhausen and John Cage. I have chosen these particular figures as a focus for several reasons. Westerkamp acknowledges the influence on her work of John Cage, so he is an obvious choice. Also, she notes the influence on her life and work of her European heritage and initial musical training there (often in reaction to it, as I note in the biography chapter). Schaeffer, Boulez and Stockhausen all embodied this European heritage in different ways. Most importantly, these four composers all influenced each other during this period. Focusing on how they affected each other contributes to the dissertation's exploration of second-person epistemology as a paradigm of knowledge about music. By focusing on letters and interviews, I reach below the objective facts about electroacoustic music to indicate how their attitudes and beliefs shaped both their own work as well as the norms of electroacoustic music.

Pierre Schaeffer

Earlier in this chapter, I describe how Schaeffer portrays his work as diametrically opposed to the work of the Cologne studio, declaring that his music gives direct contact with sound, calling himself an artisan, mentioning the influence of his parents: describing his approach as concerned with concrete materials, with personal associations, with artisanal activity, all of which are stereotypically associated with the feminine. I believe that this alignment has contributed to the dismissal of his work.

In his description of why Stockhausen's *Gesang der Jünglinge* is not *musique concrète*, musicologist Robin Maconie responds particularly to Schaeffer's use of the personal pronoun:

Soon after *Gesang der Jünglinge* had acquired a reputation it was put about that since the work incorporates a boy's recorded voice it qualified as *musique concrète* ... one suspects that the label represents an attempt either to transfer some of the credit for Stockhausen's achievement or alternatively to reduce the work in public eyes to the level of a Parisian caprice ... it is positively misleading. The manner in which Stockhausen integrates vocal sound into the electronic fabric of the piece would never have been sanctioned by the school of Schaeffer ('*mon violon, ma voix*'), even if its members had been technically well enough informed to understand what he was doing. The qualities of intelligence and workmanship that made Schaeffer so keen to claim the work in retrospect as *musique concrète*, elevate *Gesang* to an altogether higher plane ... the focus on the boy's voice naturally draws attention to the 'message' content of the text, which ... tends to obscure awareness of the purely formal relationships of the electronic sounds. It did not inhibit audiences, nevertheless, from instinctively recognizing the potency and authority of Stockhausen's handling of the medium. (Maconie, 1976: 98-99)

In his concern to show why Stockhausen's work is not *musique concrète*, Maconie distinguishes between the two, establishing a hierarchy. Maconie praises Stockhausen's work as potent and authoritative, qualities associated with masculine mastery. He is also described as intelligent, establishing purely formal relationships, associating his work with the formal qualities of absolute music. The reference to a higher plane establishes a hierarchy of intellect. In contrast, composers like Schaeffer who work with *musique concrète* are portrayed as capricious and technically ill-informed, characteristics also used to create denigrating stereotypes of femininity. In order to distinguish Stockhausen's work from that of Schaeffer, Maconie describes Stockhausen's work as exhibiting many attributes of objective knowledge: it has authority and potency, it is technically well-informed and intelligent. Its only flaw, in Maconie's view, is that it draws attention to the "message" content of the text, an aspect of the piece that refers to something beyond purely formal relationships. In contrast, Schaeffer's work is held to have none of these qualities of objectivity.

Maconie is not alone in his dismissal of Schaeffer's work. Pierre Boulez describes it in more graphic terms in a letter to John Cage: "I shall tell you that the experimental studio

is more and more crap, and that Schaeffer is a pain in the arse; and that I hope I shall soon be working with Stockhausen at the electronic music studio of Radio-Cologne" (as quoted in Nattiez 1993: 145). He is clearly frustrated with Schaeffer and his approach to music, and contrasts Schaeffer with Stockhausen. Elsewhere, Boulez describes an absence of direction of the sonic material in *musique concrète* as damaging to composition:

On n'a pas pris garde à la question du matériel, pourtant primordiale dans une telle aventure; on y a supplée par une espèce de parade poétique, dans la ligne du collage surréaliste ... Cet art poétique dénué de foi a vieilli, cette absence de dirigisme dans la détermination de la matière sonore entraîne fatalement une anarchie préjudiciable à la composition.
[One did not beware of the question of material, still primordial in such a venture; one substituted a poetic parade, in the way of a surrealist collage ... This poetic art stripped of faith has become obsolete, this absence of control in the determination of the sonic material brings about an anarchy detrimental to composition. (quoted in Schaeffer, 1967: 13-14, my translation)

Here, Boulez expresses his belief that 'primordial' sound materials need to be controlled. His criticism could be construed as an invocation of what Lloyd refers to as "the primary Pythagorean contrast between form and formlessness." (1984: 3) Boulez is criticizing *musique concrète* as anarchic, a poetic parade without leadership. He finds the *musique concrète* approach to be inadequate, and fatally damaging to composition, which to him is fundamentally concerned with formal control over materials. In its association with (primordial) formlessness and (anarchic) chaos, *musique concrète*, as described by Boulez, is thus aligned with the feminine in the original Pythagorean table of opposites that structure Western thought.

Henri Pousseur relates how the process of criticizing Schaeffer's methods actually clarifies Boulez's own approach to composition:

In criticizing Schaeffer's methods, Boulez showed me exactly what he wanted to do. He wanted to restructure the material so he could have

complete control. He wanted to unify the germ, to unify the seed, to have everything grow from one idea, and to apply a very precise, a very structured type of elaboration. (Peyser 1976: 74)

While Boulez wanted to sever his connections with Schaeffer, it was actually through interaction (in opposition) with Schaeffer that Boulez defined his own compositional aesthetic. According to Georgina Born, antagonism to the work of Schaeffer also defined Boulez's later conception of IRCAM, which became a leading centre of electroacoustic music both in France and internationally:

IRCAM's approach has commonly been understood as involving a strong rejection or negation of GRM aesthetics and technology in line with Boulez's early critique, so that his antagonism toward the GRM has been seen as a prime motive for the emergent conception of IRCAM. Indeed ... techniques and technologies associated with *musique concrète*—tape recording, analog electronics—were subject to an almost irrational neglect and indifference within IRCAM culture. (Born 1995: 77)

Boulez's hostility towards Schaeffer and his approach affected not only his own attitude and working practice, but also the conception and technical orientation of a major electroacoustic institution under his control. From these reactions to Schaeffer's work, it is clear that to represent one's own work as dichotomously opposed to a rationalist and stereotypically masculine aesthetic only leads to marginalization of the composer as well as the approach itself. The radical separation of *musique concrète* and *elektronische Musik* established in the 1950s still tends to structure writing in electroacoustic texts and value judgements in the mainstream of electroacoustic music. Although Schaeffer is considered one of the founders of electroacoustic music, and is valued highly by the acousmatic school, his work is not valued as highly as that of other composers in the field of electroacoustic music as a whole.

These references indicate how clearly Schaeffer's work was categorized by himself as well as by colleagues as radically different from the work done at the Cologne studio. Yet, as time went on, in practice, Schaeffer's work was concerned with abstracting

recorded sounds from their sources, and creating a structuralist grammar of sound types.⁶⁹ He composed *Le trièdre fertile* in 1975, which uses electronically produced sounds. He experimented with removing the sounds from their original context by removing the attack portion of the sounds. The Paris studio was to produce more and more work that was decontextualized from the sound source. Even though acoustic materials were used, it was increasingly difficult to recognize them. Judd notes that tapes had to be marked for recognition:

Schaeffer ... made use of everyday sounds which once filtered, modulated, transposed or modified become so unrecognisable that they had to take the precaution of numbering the various pieces of tape in order to recognise them later, so great was the change from the original sound. (Judd, 1961: 69)

Schaeffer's work was as much abstract as concrete, as much objective as subjective. During a recent interview with Québec composer Monique Jean, I asked her about her music, which she said was influenced by the traditions of *musique concrète*, and acousmatic music.⁷⁰ She told me that in such work, sounds "are emptied of their anecdotal content and retained for their morphology, their texture, their internal movement." This contemporary music influenced by *musique concrète* and acousmatic music appears to sever sound from the potential of intrinsic narrativity (its anecdotal content) and value it primarily for its decontextualized sonic properties: self-referentiality has come to be valued in music influenced by *musique concrète* as recorded sounds are severed from their original sources unrecognizable to the listener, and an internal structure is established, defined by morphology and texture. This emphasis on self-referentiality and abstraction brings tape music closer to absolute music than to

⁶⁹ Paul Théberge describes Schaeffer's work as fundamentally concerned with abstraction: "Schaeffer's notion of the *objet sonore* is a conceptual, technical, and quasi-scientific program for the objectification of sound materials to render them more useful as abstract elements of art." (1997: 204)

⁷⁰ A term initially used by François Bayle at the Paris studio. It refers to *musique concrète* in which the source has been made unrecognizable: "L'auditeur...ne peut discerner la source initiale des sons enregistrés" (the listener...cannot discern the initial source of the recorded sounds" (Guérin, François. "Aperçu du genre électroacoustique au Québec." *Circuit: Électroacoustique-Québec: L'Essor* 4 (1-2), 1993: 9-31.

Schaeffer's original definition of *musique concrète*. Still, the category of tape music is valued less than other genres, based on dichotomous distinctions that do not reflect everyday practice.

The Boulez-Cage Correspondence

The Boulez-Cage correspondence documents the uneasy relationship between two composers who were initially very amicable, and eventually moved in diametrically opposite compositional directions, at which point their correspondence dwindled and ended. The correspondence began as a result of their meeting in Paris in 1949. During that visit to Paris, John Cage intervened with music publishers to help get Pierre Boulez's work published, and Boulez in turn introduced Cage to musicians in Paris, and arranged some performances of his work (Peyser 1976: 60).

The correspondence lasted from 1949-1954. Nattiez explains the importance of this time for the two composers as follows:

... right up to 1952, Cage was seeking to organize what he called the structure of his pieces. Pitch had long since ceased to be determined by the series, and he was especially concerned to organize rhythm and temporal intervals. For his part, Boulez discovered in Cage a pursuit of sonorities behind which there was still some control ... However, everything toppled after 1952: chance grew from the status of compositional method (*Music of Changes*) to that of interpretation (*Williams Mix*) ... By contrast, Boulez reinforced the element of control and extended serial principles to all aspects of composition. (Nattiez 1993: 15)

At the beginning of their correspondence, Cage and Boulez were both interested in structural concerns: the elaboration of a musical form through mathematical means. This interest is consistent with the objectivity associated with the paradigm of absolute music. However, during the period of their correspondence, they began to move in differing directions.

The development of these differing directions is reflected in the concerns expressed by each of the composers during the period of correspondence. Boulez was concerned from the beginning about Cage's respect for the individuality of sounds, their context rather than their use as sonic resources within the structure of a composition. Nevertheless, he was interested in presenting Cage's work, while framing it within his own aesthetic. He discussed his disagreement with Cage's approach to sounds in his introduction to Cage's *Sonatas and Interludes for Prepared Piano* in 1949, noting also his preference for Webern's approach to sounds as "absolutely neutral" (Nattiez 1993: 32). These were his only criticisms of Cage at that time.

During the next two years, from 1949 to 1951, Cage attended the lectures of Daisetz Suzuki at Columbia University, a course making Zen Buddhism accessible to Westerners which Cage says was instrumental in changing his approach to artistic work (Cage 1961: xi). As a result, he began to question his need for control over compositional structures, and developed his work with indeterminacy and context. Boulez asked him about some of the sounds he used in the music for a film on Calder, and Cage replied as follows:

What I did was very simple, to record on tape noises actually produced in Calder's studio in the course of his work ... had I done it at the beginning, I rather imagine I would have made the entire film in this way (using also sound recorded from nature). (Nattiez, 1993: 93).

Cage had discovered an approach that questioned the tenets of traditional objectivity. The sounds that he used in the film on Calder refer beyond mathematical structures and self-referential musical forms. They were noises from Calder's studio: they referred to the rhythms of Calder's work, to Calder as a subject, rather than to a pre-defined formula.

In the same letter about the film on Calder, Cage also expressed ambivalence towards technology, seeing the perfection of machines as a limitation, but their ability to record as an advantage: "the adventure was halted by machines which are too perfect nowadays.

They are stupid. Even so I had fun in the 2nd part by recording noises synthetically (without performers). Chance comes in here to give us the unknown" (Nattiez 1993: 48). In December 1950, Cage spoke of coming closer to chance while maintaining a rhythmic structure (Nattiez 1993: 79). In May of 1951, he wrote a long letter to Boulez in which he explained in detail his method of chance procedures using the I Ching (Nattiez 1993: 94-95).

It is with Cage's *Music of Changes*, in 1951, that Boulez and Cage started to diverge more clearly. In December of that year, Boulez wrote:

Everything you say about the tables of sounds, durations, amplitudes, used in your *Music of Changes* is, as you will see, along exactly the same lines as I am working at the moment ... The only thing, forgive me, which I am not happy with, is the method of absolute chance (by tossing the coins). On the contrary, I believe that chance must be extremely controlled: by using the tables in general, or series of tables, I believe that it would be possible to direct the phenomenon of the automatism of chance, whether written down or not, which I mistrust as a facility that is not absolutely necessary. For after all, in the interpolations and interferences of different series (when one of them passes from durations to pitches, at the same moment as another passes from intensities to attacks, etc...), there is already quite enough of the unknown. (Nattiez 1993: 112-113).

Here it is clear that Boulez still perceives similarities in their approaches to the use of organization (tables of sounds, etc.). The introduction of chance procedures unsettled him: "there is already quite enough of the unknown." Although Boulez was not explicit about what concerned him in the unknown, perhaps it is its quality of apparent formlessness, a seeming chaos. Perhaps he could not understand a structure based on chance because he perceived it as the opposite of formal structure, as a lack.

A letter from Cage to Boulez in 1952 (Nattiez 1993: 132-133) documented the application of chance procedures to the composition of tape music. The letters from this point on became more sporadic: the two had less in common to discuss. By 1954, Boulez

no longer apologized for his beliefs about chance: "I do not admit—and I believe I never will admit—chance as a component of a completed work ... as for chance, the thought of it is unbearable!" (Nattiez 1993: 150) The correspondence could only continue as long as Cage was developing compositional structures with some element of control.

Increasingly, Boulez moved towards total serialism and the formal control of all musical parameters. When he used aleatory techniques in his music, it was only as "controlled chance."⁷¹ At the same time, Cage moved increasingly towards indeterminacy of performance as well as of compositional means.

Boulez-Stockhausen-Cage

During the same period that Cage and Boulez were carrying on a correspondence in the early 1950s, Stockhausen had been working at the Cologne music studio, producing several works using the serial method of composition. Initially, these used electronically synthesized sounds. Stockhausen and Cage met in 1954, when Cage and David Tudor performed throughout Europe. Peyser records that Cage was disappointed with his lack of acceptance in Europe at that time. However, an association began between Stockhausen and Tudor, who started performing Stockhausen's piano works in the late 1950s. Stockhausen also began consulting Tudor on performer involvement (Peyser 1976: 125). The association between Stockhausen and Tudor was later to facilitate Stockhausen's improved relationship to Cage.

In the mid-1950s, Boulez and Stockhausen also corresponded about the subject of rhythmic structures of pieces, a similar theme to the initial Boulez-Cage correspondence. But this correspondence was not to last. Stockhausen was becoming increasingly

⁷¹ His article "Alea" appeared in the *Nouvelle Revue Française* in November 1957. Peyser says that although he wrote this influential article about aleatory (or chance) music, he could never really engage with the idea of chance, which in his work was always controlled by serialism (1976: 129).

frustrated with total serialism. Peyser also describes Stockhausen's turn away as a turn against authority:

At first Stockhausen identified with Boulez's goal, the overthrow of traditional authority: tonality. But when Boulez, or the serial language, became a new authority, when the goal of musical revolution had been in good measure achieved, then Stockhausen redirected his hostile energies against Boulez. (1976: 120)

Gesang der Jünglinge, composed by Stockhausen in 1955-56, was considered a breakthrough at Cologne, because "against all the teachings of the establishment the piece was structured around recordings of a boy's voice, treated and integrated with electronic sounds" (Manning 1985: 75). As I discussed earlier, Maconie (1976) took pains to note its differences from *musique concrète*. But Boulez did not like it: "There was a cheap side showing that I did not like very much ... Stockhausen was covering abstract categories with splashy gowns" (Stacey 1987: 76). While Maconie focuses on the aspects of Stockhausen's work that made it seem more abstract and objective, to give it more authority, Boulez points to those aspects that seem to him to be less abstract and structured. In order to denigrate these aspects of the work, he refers to them as showy feminine clothing, "splashy gowns." His aim is to criticize what he perceives as the more trivial (or in his words, "cheap") characteristics of the work, and he does this by associating them with stereotypically feminine vanity, in effect accusing stereotypically masculine abstract categories of cross-dressing.

In this same period, 1955-56, Stockhausen invited David Tudor to Darmstadt to give seminars on the music of Cage. In May of 1956, Cage's *Music of Changes* was presented at Darmstadt. Boulez and Stockhausen argued after the concert. In 1958, Boulez cancelled his teaching engagement at Darmstadt. Stockhausen arranged for Cage to teach in his place. During this visit, Stockhausen was solidly behind Cage. Tudor reports "It

was Stockhausen who turned the tide. If ever a question of negation came up, Stockhausen came to our aid" (Peyser 1976: 139). In his second lecture at Darmstadt, Cage criticized Stockhausen himself, particularly *Klavierstücke XI*, for not going far enough with chance operations, a criticism which Stockhausen accepted at the time. Stockhausen became an advocate of the approach of Cage. "His [Cage's] became the forthcoming style. Stockhausen went completely overboard. And almost everyone went along with Stockhausen" (Peyser 1976: 140). Here, Joan Peyser indicates the immense influence of Stockhausen in assuring Cage's acceptance in Europe during that visit, a connection that I did not find elsewhere in the musicological literature.

Stockhausen went on to incorporate the ideas of Cage with his previous ideas about serialism. His work after this time is characterized by both serialism and indeterminacy simultaneously. Robert Frisius describes this as a synthesis: "Syntheses between electronic and instrumental music, between strict pre-constructed and free-intuitive structures, between known and unknown sounds, between handed-down and newly developed musical orders" (in Nagel, 1984: 13). However, it seems that formal compositional control through the serial technique is still primary in this composer's mind. Stockhausen believes that the direction that the composer takes through the serial technique is necessary to create a balanced situation among sounds. He believes that if sounds are collaged using only chance procedures, this creates a hierarchical situation with only the most banal sounds remaining in the memory. He describes the process as haphazard and unmusical:

Collage is gluing together and seeing what happens ... In America the music that's most praised has done away with all musical subjects. Cage is the example of collage music where everything's just thrown in one pot and you see what happens. (Stockhausen 1973: 190-191)

Here, it is clear that Stockhausen only appropriates certain parts of the ideas of Cage while he dismisses others. He describes Cage's music as collage, an approach in which in

his view sounds are juxtaposed without the composer's prior intention. He states that this process of collage "has done away with all musical subjects," implying perhaps that musical subjects reside only within the conscious mind of the composer. His use of the phrase "everything's just thrown in one pot" denies any structure within the music of Cage. His alternative to collage is "metacollage":

a certain object that you use, let's say a triad, is not the same as any other sound object that's less common or less simple ... If there's no choice, then things create their own hierarchy ... In music, the most redundant and the most familiar win, the most commonplace sounds stick in the mind and the others you forget. So you get a very hierarchical music ... Metacollage and integration mean ... really dealing with strong subjects and then trying to create balanced situations. (1973: 192)

In Stockhausen's view, then, the composer must have the role of mediator, to order and balance the sounds, and a hierarchy dominated by the commonplace. But in fact Stockhausen is creating a hierarchy based on the composer's choice, rather than the hierarchy of banality which he believes will be perceived by the listener. In his hierarchy, indeterminate elements are controlled by a structural form determined only by the composer.

Stockhausen has constructed a dichotomy between collage and metacollage, in which collage is formless (everything thrown in one pot, like a kind of gumbo) and metacollage is the formal structure of sound objects. By doing this, he associates his work with the privileged concept of form, and Cage's work with the less valued formlessness. Just as he had previously reacted against Boulez, he now reacts against Cage, after appropriating many of Cage's ideas. This separation from Boulez and then Cage allows him to diminish their perceived influence on him, emphasizing his status as an individual.

Peysner describes Stockhausen's selective appropriation of Cage as a type of cannibalism:

Stockhausen ... embraced Cage with such fervor that by absorption he all but annihilated him from the musical scene. Appropriating Cage's interest

in Eastern mysticism as well as his notions of performer involvement and chance, Stockhausen continued to pour out work after work. (1976: 140)

Peyser's writings are unusual in that she notes interactions of this type between the composers. Most of the biographical sources invent each composer as an individual: while other composers may be mentioned briefly, the focus remains on the individual's development of a style. Why are composers' biographies written in a way that minimizes their contact with other composers? I believe that this is related to the way that these composers invent their work as dichotomously opposed to that of others. This is demonstrated in the example above of Stockhausen's rejection of Cage's approach after he had appropriated aspects of his style. It is also shown in earlier examples, such as Boulez's dismissal of Schaeffer while Pousseur claimed that Boulez was able to clarify his own style through the process of working with Schaeffer.

Marcia Citron attributes this representation of the composer's work as original and individuated from precursors as associated with the rise of capitalism and with what literary critic Harold Bloom has referred to as an "anxiety of influence." She writes:

The concept of originality arose as a means of affirming the growing emphasis on the individual in capitalistic society—in particular the white middle-class male. For the composer it was useful as another means towards self-definition: of marking himself off from his audiences and from other composers, who now competed for attention in an open arena.... stylistic originality for the male composer may have been a necessary response to the burden of stylistic precursors: what Harold Bloom has dubbed an "anxiety of influence." (1993: 185)

While political factors such as the rise of capitalism and psychological factors such as an anxiety of influence would definitely affect composers' ways of interacting with each other, I am equally interested in how individuation is affected by composers' epistemologies. Christine Battersby claims that Romantic and Modernist aesthetics were laid on epistemological foundations provided by Immanuel Kant, who, according to Battersby, argued that "the first thing we construct for ourselves is a stable self (the

transcendental ego) which constructs itself and a stable world (of transcendental objects) at the same time" (1989: 43). Thus the artistic creator, like God, is "a Being who can literally think himself into existence ... art grows out of individuality" (1989: 44). Boulez is clear about how he thought his style into existence: "It was like Descartes's 'Cogito, ergo sum.' I started from the fact I was thinking and went on to construct a musical language from scratch" (Peysner 1976: 63).

From an epistemological position that art grows out of individuality, composers such as Stockhausen and Boulez would be concerned to individuate their work from others, to minimize the effects of others, and to describe their own work as superior to that of precursors' work. One way to do this would be to use dichotomous constructions with rigid boundaries, creating concepts such as "metacollage" that are represented as formally superior and can only be associated with their own work, while denigrating concepts that are associated with others' work.

Other European composers besides Stockhausen also criticize the compositional approach espoused by Cage, using it as an example of work that was somehow thoughtless, or mindless, as in the following quote by Luciano Berio:

... a sort of meta-aleatoricism ... focussed maximum attention on raw acoustic materials, isolating them from the conceptual procedures (whether 'true' or 'false') by which they had been organized (and which have to be there anyway, because human action is never free of concepts). The conceptual aspect, left in isolation and reduced to an abstraction that had no need of concrete relations, was much discussed, but in the end it was the physical materials that took over. And when objects took over from thought, they produced a string of gratuitous and renunciatory gestures. That was what happened with those experiences that proposed to let "things themselves" sound and speak, as if there were no difference between perception and understanding, sensation and thought, listening to the sound of water, and listening to *Götterdämmerung*. The ultimate example of this was the thoroughly stupid gesture of the pianist in evening dress circulating around the piano without playing it, as if his refusal to do so hid some greater ontological refusal in the background. When the

conceptual and the physical aspects of music propose themselves as separate and irreconcilable entities, I have the impression that I'm listening to someone who reminds us continually of his vocabulary, his syntax and his figures of speech ... but conceals from us whatever message he may have to transmit ... the producer of free sounds and noises ends up depicting the post-Cagean squalor of his soul and his musical intellect, and nothing more. (1985: 69-70)

Here, music influenced by Cage is depicted as dominated by materials, which Berio perceives as isolated from conceptual procedures in Cage's work. Berio puts forward the argument that if the physical aspects of a composition are allowed to take over from the conceptual procedures, the result will be noise and squalor. While he may seem to be advocating an integration of materials and conceptual procedures, his delineation of "listening to *Götterdämmerung*" from "listening to the sound of water" joined with the delineation of perception from understanding and sensation from thought aligns *Götterdämmerung* with understanding and thought, and the sounds of water with perception and sensation, as if there is no possible thought or understanding associated with listening to the sounds of water. This places the direction of musical understanding in the mind of the composer rather than that of the listener, who can in Berio's view only understand and think about creations such as *Götterdämmerung* while only perceiving and sensing the sound of water. For Berio, the former is musically significant while the latter is not. For Cage, both are significant.

Cage and awareness of dichotomous thought

While Cage came out of the same modernist tradition that influenced other composers of the time, his work with Daisetz Suzuki in the early 1950s led him to think about the philosophical underpinnings of his work, leading to a significant change. His music and writings from that time onwards exhibit more dialogue with others than is common among writings by composers. He is less concerned to individuate, and includes articles in his writings about many of his precursors (such as Erik Satie and Edgard Varèse), as

well as colleagues in other disciplines (Robert Rauschenberg, for instance). Some of his articles are written as anecdotes that relate specific events in which other composers figure prominently. Others, for instance the one about Satie, are written as dialogues in which writings from the subject of the article are juxtaposed with Cage's commentary.⁷² His most developed dialogue is with James Joyce, with whose work he engages many times. Cage does not attempt to construct himself as a solitary genius, but as a member of a creative community in dialogue with others.

Cage also attempts to go beyond dichotomous thinking in his own compositional work. Asked about work such as Stockhausen's, where indeterminacy was integrated with serialism, he responds:

to have certain aspects of a composition controlled ... and others uncontrolled. Well, what is maintained here is the concept of pairs of opposites: having black and white, as it were, and then composing with the play of these opposites. One can then engage in all of the games that academic composition has led us to know how to play. One can balance this with that, produce climaxes, and so on. I'm afraid all I can say is that it doesn't interest me.

It doesn't seem to me to radically change the situation from the familiar convention. It simply takes these new ways of working and consolidates them with the old knowledges, so that one remains at home with one's familiar ideas of the drama—of the play of the opposites. So, one wouldn't have to change one's mind. Whereas, I think we are in a more urgent situation, where it is absolutely essential for us to change our minds fundamentally ...What we need is a use of our Art which alters our lives. (as quoted in Schwartz and Childs, 1978: 45-6)

Although Salzman describes Cage as "Anti-Rational," (and the serialists as ultra-rational, see 1967: 157-169), this quote shows the desire of Cage to change his mind to avoid playing with established epistemological oppositions such as rational—anti-rational, in other words to avoid dichotomies.

⁷²I use this technique to construct a dialogue with Westerkamp's writings in some chapters of the dissertation.

My own experience of realizing a Cage score helped me to understand how Cage achieves this avoidance of dichotomies in his musical work. *Circus On....* (1979) "is a means for translating a book into a performance without actors, a performance which is both literary and musical or one or the other" (from the score). Here, there is no necessary dichotomy between literary and musical—while they are distinct, there is no excluded middle: the performance may be both at once.

When I worked with this score, I found that there was an intimate relation between the conceptual procedures and the acoustic materials. Through reading the text, writing mesostics, making lists of sites and sounds, recording those sounds, explaining the context of the piece to the performers, organizing the performance and then performing, I felt a greater intimacy with the sonic dimensions of the book of poetry that I had chosen for this realization than I had ever previously felt. Just because I did not have control over when a performed sound took place, or how a recorded sound was manipulated, did not mean that I was alienated from those sounds. On the contrary, through listening to the sounds and finding my time and space to contribute my own sounds, I understood that sound world better than I believe I would have through directing it. Then I would have only understood my own message, and not the other possible messages contributed by chance and by the other performers. Many members of the audience told me of the "messages" that they had received through this work. All of these were interesting, some related and some quite different from each other, some expected and some quite unexpected, full of surprises.

Berio discusses the work of Cage from the point of view of the conceptual against the physical, whereas it seems to me that his work is more concerned with moving the locus of control inward. In the movement from intention to indeterminacy, the composer must exercise self-control more than control over sound objects. When I worked with the

Circus On... score, it took a great deal of self-control to produce the mesostics correctly (without bending them to my taste) and to play only for one third of the time while on stage, spending more time listening to the other sounds produced. This lesson of musical self-control was a good one that indicated to me that musical discipline in composition could exist in other forms besides control *over* others, whether sounds or performers. There seemed to be a high degree of integration and balance between listening and performing; image, text and sound; self and other; literature and music; vocals, instrumental work and recorded sounds; improvisation and composition, that I found very satisfying.

Berio's description of Cage's music is emblematic of attempts to dismiss the latter's music and philosophy as romantic, anti-rational or simply stupid. At the same time, history books record his prophesies about the future of electroacoustic music as early as the 1930s, both in writings ("The Future of Music: Credo" 1961: 3-6, which was originally written in 1937) and in musical pieces (the *Imaginary Landscapes*). Pellman describes him as a "marvelous virtuoso of musical innovation" (1994: 354), a quote which reflects another part of his reputation as a creative genius. Attempts to dismiss his work were unsuccessful as Cage appealed to a growing number of experimentalists in popular music and visual art as well as concert music.

After 1960

After 1960, both Stockhausen and Cage continued to produce many compositions, as the experimental composers in the United States gained more acceptance, and Stockhausen continued to predominate in Europe. Little had been heard of Schaeffer by this point. The period from the late 1940s to 1960 was the time of Boulez's greatest compositional output. After 1960 he turned increasingly to conducting, and in 1977 was asked by Georges Pompidou to direct IRCAM (Institut de Recherche et Coordination

Acoustique/Musique), one of the most important centres in the world for electroacoustic music. From that point until 1985, he produced only one work, *Repons*. Peter Stacey marks the influence of Cage on Stockhausen as important to this change in Boulez's predominance:

Although in the late fifties Boulez's position of predominance was threatened and overturned by the anarchic influence of John Cage, who led composers like Stockhausen away from the world of total serialism to that of music-theatre and chance music, Boulez's achievement remains a considerable one. (1987: vii)

I would like to suggest an alternative understanding of Boulez's decrease in compositional work. By the 1950s, some composers were claiming to have exhausted the possibilities of serialism, and were looking for a change. But perhaps Boulez was so committed to the *idea* of serialism, its Cartesian separation of subject from object, that he could not move away from it, nor could he express any dissatisfaction with it. As director of IRCAM, he clearly privileged scientific thinking in the production of objective knowledge:

The creator's intuition alone is powerless to provide a comprehensive translation of musical invention. It is thus necessary for him to collaborate with the scientific research worker in order to envision the distant future, to imagine less personal, and thus broader, solutions ... *The musician must assimilate a certain scientific knowledge, making it an integral part of his creative imagination* ... At educational meetings scientists and musicians will become familiar with one another's point of view and approach. In this way, we hope to forge a kind of common language that scarcely exists at present ... The effort will be collective or it will not be at all. (Boulez 1976, as quoted in Born 1995: 1, my emphasis)

Boulez distinguishes the composer from the scientific researcher in (traditionally) gendered terms: the composer is intuitive, personal, powerless—all characteristics which are stereotypically associated with white affluent Western women. On the other hand, the scientific research worker envisions less personalized, broader solutions by looking to the future. In order for the composer to balance his creative imagination and personal tendencies to become powerful, he must assimilate scientific knowledge. While he

wishes for a common language between scientists and musicians, an integration of the two poles of intuition and scientific thinking, one is clearly privileged over the other. Boulez's insistence that the effort be collaborative reflects a belief that the two poles are mutually exclusive and cannot co-exist within an individual.

Although Stockhausen was willing to engage with the ideas of Cage and others after the mid 1950s, Boulez had stopped conversing with both Cage and Stockhausen. The latter seemed not to change his mind at a deep level, maintaining a stance of control over others while appearing to embrace chance procedures. Cage seemed the most committed to approaching music in a different way, attempting to move beyond dichotomous thinking. But what about those people whose ideas were rarely even heard? I have already discussed how the ideas of Pierre Schaeffer have been marginalized within the electroacoustic community, while still forming part of the account of electroacoustic history. Some other composers are included in this account only sporadically and locally. I will now discuss the positions in the electroacoustic community of Daphne Oram, Pauline Oliveros, and Hildegard Westerkamp. Westerkamp discusses the influence of Oliveros on her work, so once again she is an obvious choice. I include Oram not because of her influence on Westerkamp, but to demonstrate how a composer's influence is circumscribed by isolation. Oram's writings reveal both interesting ideas and innovative techniques developed in relative isolation from others. As a result of this intellectual and compositional isolation, her work has remained very much on the periphery of electroacoustic knowledge.

Daphne Oram

Daphne Oram was born in 1925, of the same generation as Boulez (1925) and Stockhausen (1928). She began working at the BBC in 1943, where she was trained as a studio engineer, an opportunity available to women because of the war. In 1944, she

began experiments in converting graphic information into sound, building her equipment out of old radio components. She tried at this time to convince the BBC to start an electronic studio, but met with resistance. When tape recorders first arrived, she moved them together each night to make a studio, disassembling them each morning. Finally, in 1957, the BBC agreed to begin what they called a radiophonic workshop, under pressure from the drama (rather than the music) department. In 1958, Oram became one of the initial directors of the workshop, and in October was sent to Brussels for a conference where she came into contact with other experimental composers including Stockhausen. Disillusioned with the direction of the radiophonic workshop which seemed to her overly concerned with the production of sound effects for radio dramas, Oram resigned from the BBC and set up a studio at her home in Kent.

Here she returned to her experiments with converting graphic information into sound, creating a system she referred to as Oramics. The use of ten parallel tracks of 35 mm. film allowed Oram to specify the characteristics of several sonic parameters simultaneously. She received several Gulbenkian grants to do this work. In the 1960s, she produced many concerts in London and Edinburgh, where she discussed electronic music and played examples composed by herself and others. She also produced music for theatre, ballet, radio, television, and film (see Fuller 1994: 234). In 1972, she published a book about her work, intended like her concerts to be accessible to a wide audience.

Oram entitled the book *An Individual Note of Music, Sound and Electronics*, beginning it with a quote from Michel de Montaigne. This French Renaissance writer is considered to be the originator of the personal essay, relying on human experience rather than abstract theory as a basis for writings. The introduction to Oram's book is full of disclaimers: that the book is not to be considered sober or academic, but is just one person's point of view. While it is good that Oram recognizes her own subjectivity, the disclaimers made me

wonder whether she expects her thoughts not to be taken seriously. Her constant emphasis that her writing should be construed as a personal note rather than serious writing may indicate an underlying belief that subjectivity cannot be taken seriously, maintaining an objective-subjective dichotomy. At the same time, she seems to recognize the power of this dichotomy and needs to address it in her work.

Despite her disclaimers, the book contains some very interesting ideas. Throughout the book, Oram finds analogies to explain electronic processes in everyday language. One of these examples seems particularly poignant in light of Oram's experience at the BBC:

Probably we have all, at some time, felt the frustration of finding ourselves talking on serious, intelligent matters to someone who has his mind absorbed at that moment by insignificant trivialities. If we are sensitive, we can almost feel physically hurt by his inattentiveness ... our own words seem to cruelly rebound and strike back at us. This is just a small illustration of unmatched impedances.⁷³ (Oram 1972: 118)

Oram discusses the distortion and dissipation of electrical signals by making an analogy with attempted communication between people. In this case, the listener's inattentiveness leads to distortion of the speaker's message and emotional damage to the speaker, just as in an electrical circuit, unmatched impedances can lead to distortion of the signal and damage to the equipment. This allusion to serious thoughts being trivialized by the listener also suggests the intellectual isolation experienced by Oram.

As well as explaining electronic processes, Oram discusses thinking and knowledge in terms of electronics, referring to what she calls "celetal"⁷⁴ thought as bringing art and science together in balance, using the Taoist yin-yang symbol as an example. She rejects

⁷³ She defines impedance earlier in the book. "Electrical impedance is the opposition presented by a circuit to a flow of alternating current" (1972: 117). If the output impedance of one device is not matched with a similar input on another, the result is distortion, destruction or dissipation of the signal.

⁷⁴ This is her word. "CELE (the reverse of ELEC) ... reminds us of the Greek KELE meaning 'swelling' and, too, of the French verb CELER: 'to hide' — in this case, what lies hidden, and intangible, gradually emerges... it rises into being" (1972: 12).

the word 'control' as inadequate to describe what an electronic composer does with sound, saying that the word she searches for does not exist in the English language:

I am hunting for some word which brings a hint of the skillful yachtsman in fierce mid-Atlantic, guiding and controlling his craft and yet being taken along with it, sensing the best way to manage his vessel, freely changing his mind as unforeseen circumstances evolve, yet always applying his greatest discipline to himself and his seamanship. (1973: 13)

Here, the locus of control is similar to that which I describe in my experience of interpreting a Cage score. The emphasis is on self-control, and working with natural forces, accepting chance circumstances interacting with personal action. This is not a conceptual dichotomy between composer's concept and sound material: in Oram's sailing analogy, the composer who creates a rigid distinction between his craft and the sound would drown as quickly as a sailor who did not listen to the wind. Oram discusses the relationship of chance and determinacy through the analogy of taking a car trip down a familiar road, and noting how an experience of the trip changes according to the season, circumstances and time of day, but how similarities in the geography persist from year to year or day to day.⁷⁵ The route may stay the same, but the attentive traveller will perceive differences every time.

Oram's book contains many interesting concepts, processes and analogies, that seem to have been developed in relative isolation, as the book title suggests. She is aware of the work of electroacoustic composers in Europe and North America (a wide variety of recordings is listed in the Appendix of her book). Her biography written by Fuller exposes her isolation within the BBC, and her brief contact with other composers in 1958 at the Brussels conference. This contact was enough to convince her of the value of her work, which she developed in a home studio. Having worked in isolation, Oram then

⁷⁵Unfortunately, part of this discussion is missing, as some of the pages of the book I had access to are torn out.

communicated her ideas through a concert series, the book, and in the 1980s through teaching at Christ Church College, Canterbury. Manning notes that Oramics "provides the composer with a specification facility unparalleled in all but the most sophisticated voltage-controlled systems" (1985: 155); still, references to Oram's work are very sparse, and out of all the electroacoustic textbooks that I reviewed, she was only mentioned in Manning's book. While she was developing some interesting ideas and techniques regarding electroacoustic music, her relative isolation limited her abilities to develop these ideas, to believe that they were worthy of serious consideration, and to spread those ideas to others beyond a limited number of people. Her music is hard to find.⁷⁶ In the York University library, there is only one recording (*Listen, Move and Dance 1-3*, a record meant to accompany creative dance for children, produced in 1962), that includes a few short works by Oram, described as "Electronic Sound Patterns." These works have the synthetic-sounding timbres typical of electronic music of the early 1960s. The short repeated sequences are gestural and rhythmic, suiting dance movements. Such short segments only give a hint of what she was doing musically. I wonder whether longer recordings of her work exist? It seems to me that her work and ideas merit more attention than they have received.

Pauline Oliveros

Born in 1932, Pauline Oliveros is just a few years younger than Oram and Stockhausen. She began working with electronic improvisation in the fifties, and was a member of the San Francisco Tape Music Center from 1961, becoming its director in 1966. She was also director of the Center for Music Experiment at the University of California in San Diego, where she taught for fourteen years. In the 1970s, she became increasingly interested in

⁷⁶ It is even difficult to find in the south of England, where Oram worked. I asked Katharine Norman, who directs the electroacoustic studio at Goldsmiths College, University of London, if she knew of any recordings of Oram's work, and she replied that she had not been able to find any.

Taoism, Buddhism, meditation and feminism. Her *Sonic Meditations*, created from her experiences of performing with a group of women, are examples of work from this period that involves ritual and intense, meditative listening. In 1981, she moved to New York State and set up the Oliveros Foundation, a non-profit arts organization. In 1988, she formed the Deep Listening band. This group has recorded performances in locations with interesting acoustics, such as the Fort Worden cistern, an abandoned water tank in Washington State with a 45-second reverberation, and Tarpaper Cave, an abandoned Catskill mountain cement quarry in New York State. Much of her work involves people with varying musical backgrounds, and a blurring of distinctions between performers and audience. She is well known for giving concerts and presentations where she listens, and the audience performs.⁷⁷ The Deep Listening Chorus, directed by Oliveros, meets once a month and is open to anyone (Fuller 1994: 227-231).

Oliveros's book, *Software for People*, was published in 1984 and contains writings from 1963 to 1980. Some of these are technical (e.g. "Tape Delay Techniques": 36-46); some are descriptions of the work of others (e.g. "Atlas Eclipticalis," about John Cage's work of the same name: 202-205); many refer to Oliveros's research about listening: the poetics of environmental sound, answers to the question "What is your favourite sound?," and excerpts from sound journals. Three of the articles are about feminism and music. "And Don't Call Them 'Lady Composers'" (1984: 47-51), is the only one which was published outside of this anthology. Oliveros notes, in a 1994 interview with Fred Maus, that the *New York Times* asked her in 1970 to write an article on any topic, so she surprised them with this. In this article, she discusses the lack of opportunities for women, the dismissal of work of women composers, and music critics' emphasis on "great" composers.

⁷⁷ I took part in such a presentation at the Feminist Theory and Music conference, at University of California Riverside, 1995.

In "The Contributions of Women As Composers" (1984: 132-137), Oliveros discusses two modes of creativity: active, analytical creativity resulting from cognitive thought, and receptive creativity in which the artist is a channel. Refusing the mainstream dichotomy which declares that (masculine) analytical thought and (feminine) intuition are separate and mutually exclusive, Oliveros includes quotes from Mozart and Beethoven which refer to both of these modes of creativity, and notes that scientists also use both modes. She points out that Western society values and develops the analytical mode, and that intuition is left to chance and remains undeveloped. She also notes the relationship of these modes to stereotyped genders. Oliveros then asks a number of questions about working methods of men and women composers, and what methods or conditions might be used to promote and train intuition. This essay was part of a grant application for research which Oliveros intended to base on the musical scores of student composers at the University of California. The research grant was denied.

"Rags and Patches" is the most playful and the most extensive of the three articles (1984: 112-129). It is an embroidered quilt of anecdotes, letters and fables, populated by Alice in Wonderland, Patchwork Girl, Ojo and Scraps in the Land of Oz. Oliveros asks "did you know there are over one hundred species of fish which change sex regularly? (Maybe even willfully)" Her allusion to the sex lives of fish, far from being irrelevant, indicates a desire to imagine possibilities beyond two fixed stereotyped genders. Her next question is "I wonder what an androgynous musical form would be?" (1984: 112). At that time, she did not include an answer. But in 1994, she does. Fred Maus asks her if she has had any more thoughts about androgynous music since writing "Rags and Patches," and she responds:

Well, I think it would certainly be in the deep structure of how the music is played and assembled. You can have music as linear process, and music as nonlinear process. And you can also have music that's both ... Probably John Cage's music could be looked at that way. He has opened the world

of music so much, with his ideas. But I also think of his music as highly disciplined in its structure.

Others dismiss it as "all those chance operations." But in working with chance, asking the right questions is crucial, of course. And then having the discipline to follow the method is another thing, and that has to do with some linearity, whereas the material and the result would be nonlinear.... hardly anyone understands the discipline. (Oliveros and Maus 1994: 185)

Oliveros's description of Cage's musical process shows a much deeper level of understanding of his work than the previous quotes about him by other composers. Rather than defining his music as feminine or masculine, disciplined or chaotic, linear or nonlinear, Oliveros experiences it as androgynous in its approach. This is consistent with her other remarks in her evident desire to deconstruct gendered oppositions.

In "Rags and Patches," Oliveros contests the dichotomy between music as penetration and listening as passive reception, pointing out that "one can *receive* music but also actively penetrate it, not to mention all the other finer variations" (1984: 113). Again, in 1994 she enlarges upon this, pointing out that focussed aural attention is very active. "Rags and Patches" also includes correspondence with people about Oliveros's role as a woman composer. She creates a model representing the integration of identity, role, duty and will, and how these become unbalanced in stereotyped gender roles. At the end of the article is a fable, with gender translation by Oliveros. It was sent by her as a contribution to a women's art festival, in a section called "Letter to a Young Woman Artist":

Dear Feminist Art Program:

Your collective response and personal potential is welcome to a ragged traveller on a patchy road:

Fox was the only living woman. There was no earth. The water was everywhere. "What shall I do?" Fox asked herself. She began to sing in order to find out.

"I would like to meet somebody," she sang to the sky. Then she met Coyote.

"I thought I was going to meet someone," Fox said.

"Where are you going?" Coyote asked.

"I've been wandering all over trying to find someone. I was worried there for a while."

"Well it's better for two people to go together...that's what they always say."

"O.K. but what will we do?"

"I don't know."

"I got it! Let's try to make the world."

"And how are we going to do that?" Coyote asked.

"SING!" said Fox.

If Fox had maintained a traditional epistemology, in which the construction of knowledge is "an independent project, uncontaminated by the influence of testimony, opinion, or hearsay, [by] ...cognitive agents who can know their environments by their own unaided efforts" (Code 1991: 71), then she would not have gone looking for someone to sing with, and found Coyote. Or if she had found Coyote, perhaps she would have listened to her song, then incorporated it, while asserting her difference and her own song's inherent superiority. Instead, it seems that Fox sought an interdependence:

manifesting itself in patterns of reciprocal influence. Shifting configurations of relationships, and constant reassimilations, reinterpretations, reconstructions of person-histories, commonly in dialogue with other 'second persons.' (Code 1991: 84)

Fox and Coyote are both dog-like, but of different species. Theirs is not a familial relationship, but one which reaches across an inter-species divide, a relationship which is achieved rather than assumed, a friendship. Fox and Coyote have some "affinities and shared but not identical histories" (Code 1991: 103). When they meet, and sing, they create a sound that speaks of both of their stories, rubs together the grain of both of their voices, to create a world that expresses their mutual and changed knowledge of it through their meeting. When Oliveros sent this "Letter to a Young Woman Artist," she encouraged them to find each other across whatever divides them, to create new musical knowledge by putting their voices together, listening and singing. In their letter to her, the organizers of the Feminist Art Program said "your personal vision and achievements have moved us and enriched our development as young women artists. You are a model to us"

(Oliveros 1984: 128). Oliveros includes this fable in her book as a hopeful message of potential musical and cooperative interaction, a parable of possibility. Her omission of the (Native American?) source of this fable⁷⁸ indicates that even though she values such cooperation and respectful interaction, she sometimes represents knowledge as her own rather than as the result of dialogue.

Because she is better known than many other women composers, Oliveros is able to enrich the development of other women composers. Her work is discussed, if only briefly, in most of the electroacoustic texts. Perhaps she has benefited from her association with other composers of experimental music in the United States and particularly with the work of John Cage, which she describes as androgynous, and therefore more attractive and full of potential than music that she would consider gendered masculine. Because she is fairly well known, a younger generation of women electroacoustic composers have benefited from meeting her words or hearing her work. Others, especially in North America, have been able to work with her directly through her performances and workshops.

There are still far more references in electroacoustic texts to male composers' works than to compositions by women, with the exception of works by Oliveros, who is often the only woman composer to receive significant attention in an electroacoustic textbook. Christine Battersby points out that to be seen as significant within a genre, an author (or composer) has to be seen as:

individual but not unique; exceptional but not isolated, strange, freakish or simply crazy. Sadly, the mythologies of female Otherness still make it extremely difficult for critics (and women themselves) to see women in such ways. A male creator credited with an *oeuvre* that is *féminin* might

⁷⁸ Dennis Tedlock says that the creation myths of many cultures are represented as dialogues (1995: 8). This one seems Native American in its inclusion of the character of Coyote.

still retain his cultural significance while celebrating non-entity; but a female viewed as hysterical and ecstatic has to fight off a much more mundane kind of cultural non-entity. (1989: 145)

Battersby's point is well taken: in my research, the work of women is generally shown to be much less widely recognized than that of men, leading to isolation and relative cultural nonentity. In addition, when only one woman composer is selected for significant attention within a comprehensive textbook or recorded anthology, her work is likely to be perceived as emblematic of an essentialized femininity, rather than part of a range of approaches by women composers.

The work of women composers is received differently in different electroacoustic communities. Both Code (1991), and Godway and Finn (1994), point out that simple communitarianism can be problematic in its uncritical valuation of the idea of community itself: communities such as neighbourhoods, families and nations can be just as oppressive as they are helpful. My research has indicated how different electroacoustic communities can work differently both in their acceptance of a variety of categories of electroacoustic music, and in their acceptance of work by women. For instance, women composers in Australia are not represented on the CDs that I reviewed which were supposed to represent recent electroacoustic composition in Australia. In comparison with composers in other nations, a woman electroacoustic composer in Australia would be likely to feel more isolated, or would have reasons to feel that way.

Hildegard Westerkamp

Hildegard Westerkamp, as both a soundscape composer and a woman, meets with obstacles to her recognition within electroacoustic music of both genre and gender. The entry on Westerkamp in the *Encyclopedia of Music in Canada* implicitly questions her role as a composer:

Westerkamp's most interesting work involves the recording, processing, mixing, and structuring of environmental sounds into a 'composition' exploring a different subject, issue or mood. (Bazzana 1992: 1396)

The quotes around the word composition indicate the author's question about whether this is actually composing. And unlike other composers in the volume, there is no list of selected musical works included, only writings.

Westerkamp has written about the importance to her approach of working with members of the World Soundscape Project, particularly Murray Schafer's approach to listening.

She has also written about the influence on her of John Cage:

An openness to all possibilities. No attempt to control anything or anybody. A sparkle in his eyes. Offering a space to relax into. A freedom. An inner space that feels authentic. (Westerkamp 1992)

She also talks of her encounters with Pauline Oliveros. Westerkamp met Oliveros when the latter gave a concert in Vancouver. She says: "The first time I encountered Pauline was when she was advertised to give a concert. The concert was us doing sonic meditations all evening and her sitting in the centre listening." (personal communication, May 1995). Westerkamp was astounded and delighted by this overturning of everyone's roles: composer as listener, audience as performers. Later, she was impressed by the breathing environment that Oliveros creates:

When I hear her play the accordion and the way she uses processing in concerts, it is a breathing type of environment, providing a place for the listener to breathe in and for herself—to breathe in while she's playing. The way she develops some of the technology is particularly with that in mind. She pays attention to those issues, and it produces a very different music than when the technology is simply a toy that creates neat sounds. (Interview with McCartney, 1993)

Westerkamp also began to integrate Oliveros's sonic meditations into her electroacoustic studio teaching, finding that students started to learn how to equalize and filter with their own bodies, and how to incorporate technology rather than seeing it as an alien structure. Her dialogue with Oliveros has influenced Westerkamp's composition and teaching. Their connection reaches even deeper. Westerkamp carries Oliveros with her as a guiding voice:

I have had her in my dreams quite a bit, as a voice of challenge and of support. She has influenced/is influencing me on a deep level and I carry her inside me. I do not have regular contact with her, but I feel connected with her. (Westerkamp, personal communication, May 1995)

While Oliveros's recent pieces focus on places with interesting acoustics, Westerkamp's work emphasizes places chosen as much for their ecological and social significance as for their acoustics. The soundwalking series was created specifically for Vancouver radio, so it concentrates on significant locations in the Vancouver area, such as the flightpath for the airport, or skid row. *Street Music* is about street musicians and their craft, rather than a specific location, but is still limited to Vancouver. All of these pieces include encounters with people and other inhabitants. *Cricket Voice*, too, is the result of an encounter with an inhabitant of the Zone of Silence. Dialogue is particularly important to Westerkamp: "Going on a participatory soundwalk ... means to learn to establish a natural dialogue between the surroundings and ourselves" (1974: 24). She speaks of dialogue with other species, or with the echoes of buildings, recognizing and working with an active, responsive environment. Inherent in her idea of dialogue is a critical awareness of her own limited perspective as recordist:

the recordist's position and perspective, the physical, psychological, political and cultural stance shaping the choices when recording. My choices are influenced by an understanding of the sonic environment as an intimate reflection of the social, technological and natural conditions of the area ... this particular microphone, this particular recording presents only one truth about the environment. (1994: 89-90)

Her ideas about dialogue also include respect for the inhabitants of a place. This respect affects her approach to studio work with sound as well. Much of her work emphasizes juxtaposition, and subtle highlighting and transformations rather than radical manipulation of sounds. In an email conversation with me, Westerkamp explains why:

I do feel that sounds have their own integrity and feel that they need to be treated with a great deal of care. Why would I slow down the cricket's voice but not my daughter's? If the cricket had come from my own garden, had a name and would talk to me every day, would I still be able to slow it down? Would I need to? It did take me two years to dare to compose with that cricket's recording, as it had been such a magical moment of recording, such a gift. I could not just 'manipulate' it. It had to be a new sonic discovery journey to retain the level of magic for me. And I remember a moment at which I said 'Stop.' The journey was beginning to turn into electronic experimentation and the cricket was being obliterated. Same experience with the raven in *Beneath the Forest Floor*. I tried to make it into a regularly beating drum...it simply wouldn't let me. So I returned to the shape of the original full call, slowed that down and received from it a

drum-like sound. It took a whole day to fly off into electronicland and return to the raven call. (Westerkamp, personal communication, March 26, 1995)

This description by Westerkamp of her way of working is strikingly similar to an account by Lorraine Code of the epistemological positions of three women scientists. Code says that their work is marked by:

i) a respect that resists the temptation to know primarily in order to control.... The work is ii) oriented toward letting the 'objects' of study speak for themselves; hence it is wary of imposing preconceived ideas and theoretical structures. Yet this openness is not theory-neutral. Rather, it is an attitude aware of the constraints of theory-ladenness and thus governed by reflexive, self-critical imperatives. The approach is iii) non-reductive, adding to the first two features a recognition of an irreducible complexity in nature.... In all of the features there is iv) a sense of the knowing subject's position in, and accountability to, the world she studies. That sense manifests itself in a mode of observation that is immersed and engaged, not manipulative, voyeuristic, or distanced. (Code 1991: 150-151)

Westerkamp speaks of letting the raven sound speak for itself, about caring for the cricket sound and not wanting to obliterate it. She wishes to leave these sounds recognizable, not to distance them from their roots in the world. She questions her compositional decisions, and wants sounds to retain their complexity, not to be simplified or obscured through her work. Her engagement with the sounds is reflected in her choice of language: the cricket voice was a magical gift, and with the raven sound, she flew.

There is a sense in Westerkamp's language here of an interaction with a living, breathing world, where she can learn from ravens and crickets. At the same time, she does not reject studio manipulation of sound:

I like walking the edge between the real sound and the processed sound. On the one hand I want the listener to recognize the source, and thus want to establish a sense of place. But on the other hand I am also fascinated with the processing of sound in the studio...to explore the sound's musical/acoustic potential in depth.

But I abstract an original sound only to a certain degree and am not actually interested in blurring its original clarity. I transform sound in order to highlight its original contours and meanings. (liner notes, 1996: 20)

Studio transformation of sound, in Westerkamp's work, is intended not to divorce sound from its context in order to create a different symbolic world or narrative, but rather to

emphasize certain aspects of the sound, to enhance the listeners' apprehension of, and their engagement with, the context of the work. Once again, there is a dialogue, this time inside the pieces: between the abstracted sounds that Westerkamp creates, and the original recordings that she listened to. This dialogue is carried into a studio method in which Westerkamp creates a counterpoint between the original recordings that recur over and over again throughout a piece, juxtaposed with sounds that are derived from these recordings. I will have more to say about this in the chapter on compositional method.

For Westerkamp, knowing one's place means trying to understand as much as possible about the social, political, ecological and acoustic aspects of a location before creating a piece based on sounds recorded in that place. In order to know a place sonically, she engages in dialogue with other human listeners, and attempts to work in dialogue with inhabitants of other species, through dwelling on the acoustic particularities of their voices. This is somewhat different from Stockhausen's definition of metacollage as the composer's method of balancing mundane and new sounds: because Westerkamp is committed to listening to the material, the balance derives from interesting facets of the mundane transformed into new sounds in dialogue with their sources, rather than new sounds that are thought of as radically different and separate from the mundane.

Westerkamp says: "I hear the soundscape as a language with which places and societies express themselves" (liner notes, 1996: 19). Boulez also speaks of sound as language: "I started from the fact I was thinking and went on to construct a musical language from scratch" (Peyser 1976: 63). But while Boulez talks of himself as the only originator of a musical language based in his own thought, Westerkamp develops hers by engaging in dialogue with the multiple inhabitants of places, through listening to their sounds.

By emphasizing the importance of dialogue within Westerkamp's epistemology and musical practice, I do not wish to set up her way of thinking as a refutation of autonomy, a relational (gendered) opposite to the autonomy-obsession that I documented in the thought of Boulez and others. Instead, I refer to the concept of "second-personhood" developed by Lorraine Code from Annete Baier's line of thinking. Baier says "A person, perhaps, is best seen as one who was long enough dependent on other persons to acquire the essential arts of personhood. Persons essentially are *second* persons" (quoted in Code 1991: 82).

The most obvious relationship where we learn the essential arts of personhood is that with our parents. Code discusses some of the problems with using the parent-child, and particularly the mother-child relationship as paradigmatic of second-personhood, because of the power relationships involved and the strong connection between motherhood and feminine identity in many cultures. This is an issue that I will return to in my analysis of *Moments of Laughter*, by Westerkamp. Rather, Code outlines the possibilities of friendship as second-person relations that can "maintain a balance between separateness and appropriate interdependence" (1991: 95). Friendships have more possibility of symmetrical power relationships than familial relations. They are chosen, based on shared affinities. In a good friendship, there is a respectful tolerance of ambiguity and difference.

While Westerkamp cannot know the sounds of a place exactly as she would know a human friend, I hear in her words an intent to understand them in similar terms, with respect and tolerance of difference, a search for affinities, and a disinclination to bend them to her will, however much she was initially tempted:

I tried to make [the raven sound] into a regularly beating drum...it simply wouldn't let me. So I returned to the shape of the original full call, slowed that down and received from it a drum-like sound. It took a whole

day to fly off into electronicland and return to the raven call. (Westerkamp, personal communication, March 26, 1995)

When she flew off to electronicland, Westerkamp approached the raven call in a normatively electroacoustic fashion: as a sound object, raw material to be transformed into something else that the composer wants as an element in a predetermined composition. When she returned to the raven call and listens to it (because it would not *let* her make the beat regular: she recognized its agency), then she received a sound that she recognized as drum-like. She maintained her own agency, was still moving to the sound of her own drum, with a beat that resulted from the rhythm inherent in the original call of the raven and the results of her processing. The dialogue in her work between raven as sound object and subject, between recording and processing, between raven and human, creates bridges between these categories that denies them the power of absolute exclusion by playing in the space between.

Chapter Four

Westerkamp's Soundings: Biography as Breathing Room

In 1991, Hildegard Westerkamp wrote and performed a work called *Breathing Room 3 – A Self Portrait*, which I will use as a basis, along with other writings by her, to move through the significant events in her life to that point. Then I will continue to the present, referring also to interviews I have done with her since 1991.

I'm four years old and I am playing with my favourite cousin. We collaborate in being rascals. We race through little forests and large gardens, through offices and along corridors. We make noise and sell flowers and rags to the workers for a penny. We sing

Lumpen, Eisen, Knochen und Papier,
Ausgeschlag'ne Zähne sammeln wir...

Rags and bones, scrap metal, paper sheets,
and we also gather pulled out teeth...
(HW: Breathing Room 3)

Hildegard Westerkamp was born April 8, 1946, in Osnabrück, Germany. In 1950, at the age of four, she was the youngest daughter in a family with much older siblings. Her mother's family owned a photographic paper factory. It was only later in her childhood that she became aware of the class differences that separated her from the workers who she greeted every morning. Her unawareness of class differences at this point in her childhood extended to music as well: she enjoyed singing the song of the ragman on the street. She remembers always being drawn to natural areas such as the "little forests" that she mentions here. Later, she would describe these as acoustically hi-fi places (Westerkamp 1988), where silence allows each thought to finish, and sounds have clarity. Her mother has always maintained a large garden, and gardening remains a source of inspiration and peace for Westerkamp to the present.

I am seven years old. I imagine myself to be Mozart's wife. Surely I would treat him so much better.... And I would make sure that everyone knew what a genius he was. Because I know it's the truth. I can hear it on that record that my parents gave me: Amadeus, Loved by God. (HW: Breathing Room 3)

Already, she was learning that classical music is what she should listen to, as appropriate to her class. But unlike the ragman's song, which she used to sing and move to, this was a record to listen to, quietly and without movement. Her Master's thesis underlines the importance of balancing sound input (listening) with sound output (music-making), and stillness with movement. She notes how her upbringing affected that balance:

In the course of my upbringing I had learned to remove myself from the musical/social situation by doing what everybody else did: by internalizing all musical impression, by judging and criticizing the execution of a piece, and by being physically inactive. In fact, the emphasis was on spiritual, emotional experience and the body was ignored and put into its seat in the concert hall. This experience I recognize now as a total split between body and mind, physical and psychic reality. It took me a long time to appreciate the lively, more informal nature of musical events of indigenous cultures, and to understand that the music is so alive because listeners participate actively by responding musically and physically and by being very expressive. Even the North American folk music context was unusual for me where people, although sitting in their seats, moved to the music and sang along. (Westerkamp 1988: 129)

The balance between listening and music-making was already being lost when she was seven: she did not imagine herself as a creator of music—a composer, like Mozart, but as his wife, appreciating another's music rather than making it. Christine Battersby, in her study of gender and genius, discusses the role of the composer's wife:

Over Christmas 1986 the BBC broadcast a radio series called *Wives of the Composers*. The assumption underlying these supposedly humorous [sic] talks was that the great composers had lives that mattered, and wives (and mistresses) who also mattered—but only to the extent that they helped the great geniuses of music father their timeless progeny....The eccentricities of the male geniuses were excused; but not those of their partners. The latter were treated favorably only in so far as they fitted comfortably into a narrow range of sexual roles. (1989: 12)

On the next page, Battersby notes her great interest in music, but how, because all of the books about composers were about men, "Being a composer ... was not a career that ever occurred to me" (1989: 13). Likewise for Westerkamp, at least at the age of seven.

At around this same time, or perhaps a few years later, Westerkamp had her first encounter with tape recording, as she mentioned to me during my first interview with her for my Master's thesis work:

Well, the very first time [that I did any recording] was really when my brother bought a reel-to-reel mono tape recorder in the fifties. And I didn't really do much with it, but I was absolutely fascinated by the fact that we could turn on the microphone, and hear us back. I would put the microphone on secretly, when we were playing games, with the family. (Westerkamp interview with McCartney, April 1993)

It was devastating for Westerkamp when another brother went down with his ship several years later.

I am eleven years old and I get a high fever one day. That's the day my brother dies in the Atlantic. He was twenty two and I never said good-bye to him. I never walked with him through that hurricane and never found his grave and I don't know whether he was a genius. (HW: Breathing Room 3)

Although Westerkamp later dedicated a piece to her brother, she has never written a work specifically about his death. Still, after all these years, it is such a disturbing memory that she does not want to approach it directly in her work.

I am fifteen years old and I'm trying to find out who the hell I am. I am trying to separate myself from my parents and anyway how could they not have noticed what was happening to the Jews before and during the war? (HW: Breathing Room 3)

As part of the generation of Germans who were born just after the Second World War, Westerkamp lived with the grief and shame that younger Germans have inherited from events that happened before their birth, during the Nazi time. Another German born in 1946, who emigrated to North America, author Ursula Hegi, has written about the experiences of people such as herself and Westerkamp, who left Germany for a different place. Like Westerkamp, Hegi had questions:

When did you find out about the Holocaust? Did your family speak about it? Your community? Did you dare to ask questions as a child? As an adult? How afraid were you of the answers? ... Do you encounter prejudice against Germans in America?⁷⁹ ... Why did you leave Germany? Do you feel connected to America? How do you regard your German

⁷⁹ I was introduced to Hegi's work by Westerkamp, when I told her that my own upbringing in post-war England prejudiced me towards Germans to positive and negative extremes. Most of the composers whose work I played were German, so I associated my favourite activity, playing the piano, with Germany. At the same time, we watched many war films on television, and every German in these films was evil. There was no separation of Nazism from Germanness. The first book that I read by Hegi was a novel about a town on the Rhine in the years preceding and during the war, *Stones from the River*.

background now? Do you think there is a collective burden of shame? Is that different for those of us who were born after the war? What can we, as German-born Americans, do now? (1997: 22-23)

Many of the people that she interviews in her book *Tearing the Silence* comment on the silence about the war, in families and in schools, in the culture at large, in the years directly after the war. They speak about how hard it was to ask out loud the questions that Westerkamp asks, how oblique the answers were.

From 1966 to 1968, after high school graduation, Westerkamp attended the Conservatory of Music in Freiburg, where she studied flute and piano.

I'm nineteen years old and I meet a man ... Three years later I emigrate, following the man... (HW: Breathing Room 3)

In 1965, on a family trip to Canada, Westerkamp met Norbert Ruebsaat. In 1968, she moved to Vancouver, where he lived and worked. From 1968 to 1972, she studied music at the University of British Columbia, receiving her Bachelor of Music degree in 1972. Here, she began to hear electroacoustic music, and in her final year took a studio course in electroacoustic techniques:

They were putting on electronic tape concerts in a dark auditorium, and that was really unusual for me, I had just not heard anything like it. I kept going to those and I was really very fascinated by it, but really didn't know what to do with it. After my fourth year, the department offered a six week studio course and Barry Truax, who was a graduate student at the time, ran it, and I took it. I really wanted to take it because I thought that if I understand how the equipment works, maybe I will understand better what I've heard in those Monday concerts. Somehow I got closer to this strange soundmaking that was happening. It was all really haphazard, perhaps unconscious, almost dreamlike. I kept thinking, this is interesting. (Westerkamp interview with McCartney, April 1993)

Westerkamp quickly made use of her new knowledge in an ambitious venture, in 1972:

Then before I knew it, I was producing, under the [federal government] grants at the time, the soundtrack for a full-length, multi-media performance, with my six weeks experience in the studio. I used other composers' music and just changed it around—completely unconscious of copyright. I started out with some Vivaldi which was very appropriate for the play, and I processed it, and used the Auschwitz Concerto by Penderecki. I used them as sound materials, and we produced this multi-media play—a kind of post-nuclear scenario written by my friend Brian Shein. Norbert Ruebsaat produced it, with several friends involved. I fell into this thing, and it was completely fascinating. (Westerkamp interview with McCartney, April 1993)

Westerkamp does not include this early multimedia experiment in her list of compositional works, because of her extensive use of other composers' music.

I am twenty five years old and I meet a man who is a little bit like Mozart and a little bit like Richard Wagner. My ears open in a way they've not been opened since I was four years old. I am devoted to my work with him. A year later he fires me. His wife... Oh, never mind. (HW: Breathing Room 3)

During her time at UBC, Westerkamp went to a lecture presented by composer R. Murray Schafer, where she was immediately impressed by his approach to listening and music. She became a researcher for the World Soundscape Project (WSP), which brought her into association with other composers such as Barry Truax, Howard Broomfield and Peter Huse.

Westerkamp alludes briefly to a difficulty within their relationship. As a research associate, she worked closely with Schafer, developing a friendship as well as a research relationship that became a source of unease in Schafer's personal life. Schafer's response was to fire Westerkamp, and to help her to find other work as researcher/coordinator of the Noise Abatement Project at SPEC (Society Promoting Environmental Conservation). Schafer's decision protected his marriage at the expense of Westerkamp's position as research associate with the World Soundscape Project, a job that was meaningful and important to her. While it did not significantly impact the progression of her career, and she and Schafer continue to be colleagues—at more of a distance—it does indicate that her gender made the mentoring relationship more complicated, and less satisfying, than it could have been otherwise.

Working with the World Soundscape Project gave Westerkamp experience in several areas that became important to her later compositional work. To be around Schafer's ears and his encouragement of her own ways of hearing and listening, gave her some confidence in her own aural perception. The research done by the World Soundscape

Project included extensive field recording with excellent audio equipment: this gave Westerkamp the opportunity to develop field recording techniques, as well as the chance to interview people in the field regarding soundscape issues. In addition, the WSP had access to a well-equipped sound studio:

I learned by osmosis to work with equipment. I never took another course after that six weeks' course [with Truax at UBC]. With the World Soundscape project I simply watched my colleagues, and spent a lot of time in the studio. At that time, the studio belonged to the World Soundscape project, and nobody else worked in it. We could work in there twenty four hours a day. So I would just be in that studio for hours, sometimes doing nothing but listening, or editing a bit, and gradually, by 1975, I became interested in processing sounds a bit more. I had heard what others had done, I had seen how they edited. (Westerkamp interview with McCartney, April 1993)

Her time with the World Soundscape Project gave Westerkamp what other electroacoustic composers (McCartney 1994) have told me is ideal: unlimited studio time in an environment without a rigid rule structure, working with other composers but also with time alone to discover personal compositional preferences.

Whisper Study

In conversation with me in 1993, Westerkamp described her work on *Whisper Study*, her first composition:

As I was working more and more in the studio, I was in conversation with Barry Truax. I would watch him, and eventually I learned some of the classic tape techniques: tape delays, feedback, equalizing, and filtering. I began to do my first piece, which was *Whisper Study*. It was such an important and honest experience for me to do this piece. I had the sense that I was thoroughly getting into something that was me. I wasn't cutting any corners. I had chosen to use very quiet material, whispering material, which forced me to be very careful in the studio with how I was technically reproducing the sounds without too much noise. I wanted it to be a quiet piece, and that approach forced me to be very, very careful. I couldn't fool myself. I wanted to work with silence, I was thinking a lot about silence, and I wanted the technology to be not audible. I really wasn't that conscious of what I thought about technology. I was just amazed at what it did. I came up with a piece that satisfied me completely. I just thought that is the best process I've ever experienced. And I've done it completely on my own. I had never composed a piece, but it felt like—this is it. I finished it, and then I played it to people, and people were responding very positively. Already with the soundscape context I felt that I had found something very important, because I was fascinated by the environmental sounds, and the meanings connected with them. But now there was another level of excitement, producing and doing something. Putting out. (Westerkamp interview with McCartney, May 1993)

Whisper Study (1975) is a studio tape composition for very quiet sounds. Almost all of the sounds in the piece are derived from Westerkamp's voice whispering the sentence "When there is no sound, hearing is most alert" and the word "silence." At the end of the

composition, is a poem, "When There Is No Sound," written by Norbert Ruebsaat in direct response to Westerkamp's composition of the original version of the piece.

It is interesting that *Whisper Study* is based so much on the sound of Westerkamp's (physical) voice. The sonic environment that she begins with as a composer is the environment of her voice, of the sounds that she produces from her own body. In her Master's thesis, she indicated that the privacy she found in the studio allowed her (creative) voice to emerge:

The studio environment has provided me with a "niche" where I could find my own creative voice without interference from the surrounding social, cultural context ... Since it has always been hard for me not to give external voices more power than my own inner voice, this was an important stage for me. (Westerkamp 1988: 133–4).

When she spoke to me in 1993, Westerkamp pointed out that she did not want the techniques that she used in the studio to interfere with the clarity of this voice:

I've always felt that if I can obscure the technique with which I speak, and make what I speak audible, that's really what I'm after. (Westerkamp interview with McCartney, April 1993)

It may also be significant that this is a study of whispers. When I corresponded with the composers in my Master's thesis research, many of them were fascinated with the similar themes that emerged in each interview. Ann Southam commented on this, then added that it seemed as though everyone were whispering. At the beginning of a chapter on the creative process in Westerkamp's Master's thesis, she comments that as people are socialized, they often lose opportunities for self-expression.

I am not the only one who has lost her confidence in and connection to her ear and voice in the process of growing up in Western society. This loss may take different forms and may happen to a greater or lesser degree depending on each individual's socio-cultural background, and it can be observed all too often in children as they grow up into teenagers and young adults. It is perhaps more of an issue for women, most of whom have been taught from early on to adapt themselves to a given situation, to listen, to accept, and who have not been encouraged to speak up, to feel confident with their voice, especially if it differs from that of the status quo. (Westerkamp 1988: 94)

A whisper can be thought of as the quietest audible stirrings of the voice, a leap of faith from silence to sounding for one who was taught to listen but not to speak up.

Soundwalking

Westerkamp notes that her association with Vancouver Cooperative Radio (CFRO; Co-op Radio) was important to the development of her compositional style. As I discussed earlier at the beginning of Chapter Three, Westerkamp considers radio production and composition to be related in the need for care in form and content, and in the aim of creating an audio piece that will engage listeners. Her initial contact with Co-op Radio was from 1974-76, through the sound and technical production of *Meet the Law*, a legal soap opera serial written and produced by Norbert Ruebsaat. In 1976, she also was co-producer of *Heard from a Distance*, a weekly two-hour cultural program. From 1978-1982, she was co-host of *Performance*, a weekly two-hour program of local concerts. The Co-op Radio program that had the most direct influence on her creative work is *Soundwalking*, a weekly one-hour program about the acoustic environment.

The radio show was based on ideas about soundwalking that Westerkamp had developed while working with the World Soundscape Project. Westerkamp's "Soundwalking" article in *Sound Heritage* (1974), part of a special issue by members of the World Soundscape Project, was written at a crucial juncture in Westerkamp's life, between the time that she worked as a researcher for the World Soundscape Project, and her production of the *Soundwalking* show at Co-op Radio, during a period in which she was beginning to compose electroacoustic music (she describes *Whisper Study* as her first piece, and it is dated 1975). This was an important time for her as a composer, broadcaster, and sound ecologist.

In this article, she describes soundwalking and suggests how to approach it. She discusses the history of soundwalking, and its purposes, from orientation, to dialogue, and composition. She also includes an example of a soundwalk: one in Queen Elizabeth Park in Vancouver. She includes a map of the park, and makes comments about sounds heard in different areas. This is an article that I have referred to repeatedly since that time, as I developed my own approach to soundwalking, and to soundscape composition. When I asked Westerkamp to do a soundwalk with me in 1997, the location that I chose was Queen Elizabeth Park, as in the article.

A soundwalk is any excursion whose main purpose is listening to the environment. (Westerkamp 1974: 18).

The intention of soundwalking is listening. Soundwalks can take place in the mall, at the doctor's office, down a neighbourhood street or at the bus stop. The focus on listening can make this a meditative activity, sometimes shared in silence with others.

A soundwalk can be ... done alone or with a friend (in the latter case the listening experience is more intense and can be a lot of fun when one person wears a blindfold and is led by the other one through several different and interesting acoustic environments). It can also be done in small groups ... The first soundwalk can be done anywhere, at any time, and as often as desired. For the sake of intensity it may be wise to limit the walk initially to a small area ... In each case it depends on how long it takes to remove the initial hearing barriers, how deep the involvement is and how much fascination can be found in such an exploration. (Westerkamp 1974: 18-19)

When Westerkamp wrote the "Soundwalking" article in 1974, however, she had not yet thought about recording and broadcasting soundwalks. That stage came later, when she began to think about bringing the soundscape to the radio listener.

The *Soundwalking* show at Co-op Radio gave Westerkamp a forum to further explore some of her ideas about sound ecology.

My own involvement with Co-op Radio gave me the opportunity to consider radio as an artistically expressive medium and to address issues of environment and acoustic ecology. I was attempting to make radio a place of environmental listening by broadcasting the soundscapes that listeners experienced in their daily lives ... My own first attempt to create radio that listens was called *Soundwalking* ... Produced in 1978

and 1979, *Soundwalking* took Co-op Radio listeners into the soundscape of Vancouver and surroundings ... I went to a shopping mall, park, zoo, factory, residential area located under a flightpath and the streets of Vancouver. (Westerkamp 1994: 88-89)

Westerkamp notes that the radio show gave her experience in field recording in a wide variety of different sound environments, as well as experience in communicating with the radio listener from the recording location.

I really learned field recording through Co-op radio, where I did a program called *Soundwalking*. I took a portable tape recorder all over Vancouver and surroundings, and recorded the environment and commented on tape on the sounds that I heard, or on the other aspects of the environment that a radio listener can't know about. (Westerkamp interview with McCartney, April 1994).

These soundwalks are somewhat different from the type that she documents in the "Soundwalking" article, because of their aim of reaching the radio listener. When Westerkamp leads a group soundwalk, she asks the members of the group to remain silent in order to listen more attentively. In the *Soundwalking* shows, there are long periods of time where Westerkamp remains silent. But she also includes commentary on different aspects of the environment, in order to maintain contact with the radio audience.

Sort of like a sports announcer, I was the link between the audience and the radio station. But it was much more slow-motion than being a sports announcer, it was more contemplative, meditative, depending on which environment I was in. (Westerkamp interview with McCartney, April 1993)

Westerkamp remembers that she gained technical competence through producing many shows, not only about working with the equipment, but also about interacting with environmental sounds, and talking with people, developing a dialogue.

So I learned a lot by just doing this recording. What would my microphone pick up if I do this, and how do you play with environment and voice at the same time, live, while you're out there? How do you deal with people who approach you? So I developed a fairly passive style of recording. Very different from the radio journalist. I would just stand someplace and record. Then people who were familiar with that environment would approach me, I would not approach them. And as a result I got some very interesting conversation, some very interesting talk. (Westerkamp interview with McCartney, April 1993)

At least part of the reason that Westerkamp develops a non-intrusive style of recording is that she is very aware of her position as a relative newcomer to Canada, not quite part of

the culture. Renato Rosaldo (1988: 85) describes immigrants to North America as bobbing and weaving between assimilation to the new culture, and allegiance to their original one, creating for themselves a border zone which resembles both yet is part of neither. The immigrant's identity necessarily includes a sense of displacement, one in which there is rarely any permanent return to the place of birth, and therefore there is a need to become part of the chosen culture. At the same time, the immigrant's formation in the home culture necessitates comparisons between the cultures in order to understand how to fit. So the immigrant swings between the two poles of home and chosen culture, bringing together aspects of both in their experience.

As she learns about the Canadian soundscape with an immigrant's displaced ears, Westerkamp is at once inside this new soundscape and outside it, able to hear with a fresh perspective. But perhaps more importantly, her identity as an immigrant leads Westerkamp to the use of the microphone as a tool of access, and the development of a dialogic approach to field recording and production that would become a significant part of her compositional style, bridging cultures in sound.

As a fairly recent immigrant, Westerkamp uses the microphone, with the justification of a radio show, to go into situations that she may not otherwise have entered, allowing her to learn about the new culture by listening.

I found the tape recorder at that time a way of accessing this landscape, and the culture. I was still an immigrant, I had just been here maybe five or six years, and even though I felt pretty much at home, still a lot of aspects were strange, and somehow I think the tape recorder gave me the courage to go into environments that I otherwise wouldn't have gone into. The microphone led me in, and it had a justification. I had this radio station to broadcast it over, and it really was a tool of access, in a way. Because I'm not necessarily a person who ventures easily into new environments. Even though I immigrated, I like to go places with other people, who know the place. But the tape recorder allowed me to do it alone. So I would go into the deepest forests, in fact, with this tape recorder, and not worry about anything. (Westerkamp interview with McCartney, April 1993)

The *Soundwalking* show is at once a tool of access for her to learn about the Canadian soundscape and engage in dialogue about it with people, as well as a venue to express what she hears, and again to engage in dialogue by playing it back to a wider radio audience.

Becoming a Mother

I am thirty one years old and I and [Norbert Ruebsaat] give birth to our daughter. He becomes a father. I become a mother. He becomes a writer and I become a composer. Never mind the Mozarts and the Wagners and their wives. (HW: Breathing Room 3)

Westerkamp's relationship with her daughter, Sonja, has had a significant effect on her music and thinking. Through living with Sonja since her birth in 1977, Westerkamp has come to reflect on the remarkably varied soundmaking efforts of young children, and how these often become restricted in adults. She believes that adults can learn much from children's immediacy and focus.

A child playing—i.e. while carving a small part of special time out of ordinary time — always strives to completion of the process. Talk, song, and movement are an integral part of this process, whether a child plays alone or with other children. The child lives inside the play/ritual, is always a participant. There is no separation between listening and soundmaking. Listening, dancing, singing, speaking are simple tools for whatever feelings need to be expressed. (Westerkamp 1988: 80)

In a 1993 interview, Ios Smolders asks whether parenting and other activities affected Westerkamp's way of working as a composer: "Gayle Young mentioned that as a woman, she has learned to work with her music in between ten other activities (like doing the dishes, feeding the children). What is your experience?"

After my daughter was born, I became very aware of my time limitations. I realised that I had very little time to devote to myself or my work and learnt to take advantage of the little bit that I had. That's when I realised I was a composer and became more serious about my compositional work. But, as opposed to some of my women composer colleagues, I was never good at composing between ten other activities. I had to make sure to have longer stretches of time in which I could close my studio door and just work. This was possible because my husband and I tried as much as possible to share the responsibilities of child-care evenly. (Westerkamp as quoted in Smolders 1993, unpaginated).

While Westerkamp was aware of her time limitations, at a time when she was establishing herself as a composer, her shared parenting responsibilities with her husband allowed her stretches of undisturbed work time in the studio. Sonja's presence was also an inspiration to Westerkamp's musical work.

Her voice has accompanied my life for many years now and has brought me in touch with an openness of perception, uninhibited expressiveness and physical presence that I had long forgotten (HW: *Moments of Laughter*, 1988: score notes).

Sonja herself started using a tape recorder at an early age. Westerkamp recorded sounds made by Sonja from the time that she was born. From the age of four on, Sonja made her own recordings of stories and songs. These recordings became sources for the tape part of *Moments of Laughter*, 1988, which explores the dialogue between an adult woman (female vocalist) and a child from birth to the acquisition of language. This piece will be the focus of analysis in a later chapter. I will leave further musings about parenthood and composing until that point.

Becoming a Composer

In 1979, Westerkamp received her first international award, Honourable mention in the International Competition for Electroacoustic Music in Bourges, for *Fantasie for Horns I*. This piece was composed in 1978, using sound sources of various horns found in the environment: Canadian trainhorns, foghorns from both Atlantic and Pacific Canadian coasts, factory and boathorns from Vancouver and surroundings, as well as an alphorn (just a smidgen of Europe in the Canadian soundscape) and the sounds of a creek. Most of these recordings were taken from the World Soundscape Project archive, and some were recorded by Westerkamp.

Listening to the various horns in the collection was fascinating because of the way their sounds were shaped and modulated by the surrounding landscape. Some horns would echo only once, others many times, their sounds slowly fading into the distance. One foghorn had an echo that was an octave lower than

the actual sound, another was an octave higher. A trainhorn's echo was half a tone lower as the train approached, but the same pitch as it passed. (HW: *Inside the Soundscape I*, liner notes)

Westerkamp was fascinated by how the musical properties of these sounds — the harmonic relationships between the horn and its echo — reflect the placement of the horn within the landscape, and the motion of the sound through it. She was also interested in the social importance of horns.

Horn sounds are interesting for another reason — they rise above any ambience, even that of large cities. They are soundmarks that give a place its character and give us, often subliminally, a "sense of place." (HW: *Inside the Soundscape I*, liner notes).

Also in 1979, Westerkamp created *Fantasie for Horns II*, which includes a live French Horn part and was premiered by James MacDonald. These two pieces were recorded and produced as the first of a cassette series by Westerkamp and Ruebsaat, entitled *Inside the Soundscape*.

In 1980, Westerkamp was commissioned by the Western Front Gallery to create *Cordillera*, a composed acoustic environment (gallery installation) for four-channel tape on the poetry of Norbert Ruebsaat. This formed part of the Music from the New Wilderness Festival, in February of that year. It was Westerkamp's first piece about wilderness.

Cordillera is about landscape, about wilderness, about the human presence and voice in places that are still considered by many to be barren and silent. It attempts to bring back to the city listener the sense of space, time and acoustic identity we experience when we manage to tear ourselves from the noise that clutters most of our daily lives. (HW: *Inside the Soundscape 3, Cordillera* liner notes)

The recordings in the piece are sounds from the Western Canadian mountain wilderness which first inspired the poems, placing this human language about landscape in sonic interaction with that acoustic environment.

The following year, 1981, Westerkamp released several compositions that were extensions of the compositional process she had developed for the *Soundwalking* show at Co-op Radio. *Under the Flightpath* is a sound document recorded by Westerkamp about life near the airport, including commentary from people who live under the flightpath. Commissioned by the Hornby collection, CBC Radio, it was first broadcast in January 1981. Westerkamp classifies compositions as sound documents when they seem as much a documentary about a certain issue as music: *Under the Flightpath* explores the issue of airport noise through the voices of local inhabitants. It uses musical techniques such as counterpoint of certain phrases, and rhythmic repetition, and also focuses on spoken commentary from people living under the flightpath.

A Walk Through the City was also commissioned by CBC, this time for the new music show "Two New Hours." This is a composition for two-channel tape, with a poem read by Norbert Ruebsaat. It is an urban environment, as the title suggests—a very specific location—Vancouver's Skid Row area, which is just a few city blocks. In the liner notes, Westerkamp writes about the flow in this piece between reality and imagination.

Traffic, carhorns, brakes, sirens, construction noise, pinball machines, the throb of trains, human voices, a poem, are its "musical instruments." These sounds are used partly as they occur in reality and partly as sound objects altered in the studio. Thus a continuous flux is created between real and imaginary soundscapes, between recognizable and transformed places, between reality and composition. The piece makes audible a phenomenon we all experience, but of which we are rarely conscious: the fact that the modern city soundscape is formed from our constant perceptual shifting of focus between the acoustically real and the acoustically imaginary. (HW: *Inside the Soundscape 2*, liner notes).

This rhythmic shifting between reality (recorded sounds)⁸⁰ and imagination (processed sounds) is another feature of Westerkamp's developing compositional style. While many electroacoustic composers (especially soundscape composers) include some interaction

⁸⁰ It could be argued that recorded sounds are already one step away from reality in that they have been altered by the recording process. They are already only copies of sounds. However, when listeners hear recorded sounds that have not been otherwise processed, they tend to perceive them as connected to their sources in the world.

between recorded and processed sounds, I know of none who feature this interaction as prominently and consistently as Westerkamp. When pieces involve this shift between imagination and reality, Westerkamp classifies them as compositions rather than as sound documents.

Two other compositions in 1981 were premiered in November at the Women in Focus Gallery in Vancouver: *Streetmusic*, for any portable instrument and two-channel tape; and *Windmusic*, for any wind instrument and two-channel tape. The following year, *Streetmusic* was also produced as a sound document about Vancouver's street musicians, commissioned by Co-op Radio.

Streetmusic occurs on three levels. There is the music itself, which the musicians produce and passers-by listen to; there is the interaction and the chit-chat, the verbal exchange between the performers and the street audience; and there is the street itself, with its noises and intrusions, its randomness and ambience—creating a context for, and, occasionally, a musical counterpoint to, the acoustic event being played out.

Streetmusic explores the flow and exchange between these three levels of sound.... (HW: *Inside the Soundscape 2*, liner notes)

In Westerkamp's *Soundwalking* shows from 1978 and 1979, the human voice that is heard most often is that of Westerkamp herself, providing commentary on aspects of the environment that listeners would not be aware of. In sound documents like *Under the Flightpath* and *Streetmusic*, Westerkamp's voice is heard less frequently, in conversation with people living and working in the environment that she is recording, whose voices are heard more often, and more audibly, than hers. Unlike in a standard radio documentary, where a voice-over monologue leads the listener through an experience or event, here the inhabitants of the place lead the listener in a number of different directions.

Cool Drool was composed in 1983. This piece, for spoken voice and two-channel tape, was the first piece that Westerkamp performed live, herself. The premier was at Vancouver East Cultural Centre in February 1984. I was fortunate enough to hear another performance of this same piece, in April 1998, at the same location.

I am a composer. I recycle sound. I recycle sound that is ignored. Sound that passes unheard. That is not listened to...
I pick up the pieces that have not been heard...
I am an ecologist of sound...
I take the sounds in because they enter relentlessly. I grab them, work with them, let them out again so that you can hear them....
(HW: *Cool Drool* score).

Wearing a blank white mask, Westerkamp listens to Muzak, the sound that as consumers we are not supposed to listen to. The performance is part song, part dance, partly a presentation of research that Westerkamp has done about Muzak and how people react to it, and the strains of Muzak from different urban environments weave throughout the entire piece. It is a subversive performance: where Muzak divorces music from its social context, *Cool Drool* uses Muzak to connect music back to a social reality. Later in the 1980s, further analysis of the social phenomenon of Muzak formed an important focus of Westerkamp's Master's thesis research.

In 1984 and 1985, Westerkamp composed her first film soundtracks and music: *This Borrowed Land* (National Film Board, director Bonnie Kreps) and *One Woman Waiting* (director Josephine Massarella) in 1984; *Still Sane* (Women in Focus) and *Ranch* (Steven Denure and Chris Lowry, directors) in 1985.

Into the Wilderness

In December-January of 1984-85, 15 artists from 4 cultures camped together in the so-called Zone of Silence in north central Mexico to explore the desert environment through their respective disciplines and make art. (HW: liner notes, *Into the Soundscape #3*, 1986)

Westerkamp and Norbert Ruebsaat, accompanied by their daughter Sonja, were part of the group. The Zone of Silence is an interesting environment, not only because it is a desert with unusual landscape formations, plant and animal life, but also because the earth's magnetic field seems to act strangely in this area: Westerkamp reports that in some parts of the Zone, tape recorders simply don't work (liner notes, *Into the Soundscape #3*, 1986). While the area had at that point been studied by scientists and shamans, urban-based artists had never worked there.

We camped in the Zone, in an Apache ruin, and did art events, performance, photography, recording, sound-making, story-telling, sculpture, poetry. **Zone of Silence Story** is an account of some of these adventures. It's made from environmental sounds, poems, stories, music, conversation, plant sounds, rock noise and cricket song. (HW: liner notes, *Into the Soundscape #3*, 1986)

One of the pieces in the *Zone of Silence Story*, "Sonic Meditations and Star Language," uses the sound of a cricket which sang one night directly into Westerkamp's microphone. This same recording was to become the basis of another piece, *Cricket Voice*, which will be the focus of analysis later in the dissertation. Like *Cordillera*, the *Zone of Silence Story* is an exploration of the sounds of wilderness from the perspective of urban dwellers. Westerkamp and Ruebsaat placed these both on the same tape in the *Inside the Soundscape* series. *Zone of Silence Story* was originally produced as an acoustic environment for a gallery installation at the Museum of Quebec in Quebec City, December 1985 to January 1986.

Both *Cordillera* and **Zone of Silence Story** are concerned with the fragility of wilderness. The fragility (quietness) of many of its sounds, and the fragility (sparseness) of its possible language. It contains large patches of silence that must also be heard. The two pieces try to bring some of that silence, and some of the particular kind of listening it requires, back to the urban dweller. (HW: liner notes, *Into the Soundscape #3*)

The aim to make others aware of the fragility of wilderness is an ecological aim, a thread that emerges repeatedly in Westerkamp's work and is also evident in her ongoing work in the acoustic ecology movement. Her use of the phrase "patches of silence" expands my perception of silence as something related to time (as in John Cage's 4'33") to something also related to space: places that are more or less silent, patches or oases that could be mapped.

Also in 1985, Westerkamp produced *Voices for the Wilderness*, a sound document of the first Stein Festival. It documented the dynamic of four hundred people who hiked to the timberline of the Stein watershed, near Vancouver, to draw attention to the logging threat on this region.

The Stein Valley is the last unlogged, unmined, undammed wilderness watershed within a day's reach of Vancouver, B. C. It flows into the Fraser River at Lytton, B. C. after traversing a range of ecosystems from high alpine to coastal forest to interior dry belt. It is the spiritual and ancestral home of the Lytton and Mount Curry Indians, who have an unfulfilled aboriginal land claim on the valley, and it contains countless rock paintings, petroglyphs, burial and food-gathering sites. It is the home of numerous wildlife species, from grizzly bear to salmon.

...Who should be allowed first access to and use of B. C.'s last remaining pockets of undisturbed wilderness land—resource extraction companies, or future generations of children, both Native and White, for whom the experience of wilderness is a priceless heritage? (HW: liner notes, *Into the Soundscape #4*)

As well as the sound document, Westerkamp was also involved in the production of a slide-tape show about the Stein Valley. Both of these productions are examples of her work as an environmental activist as well as a composer. Proceeds from the sale of the *Inside the Soundscape* cassette were donated to the Stein Action Committee, and the liner notes suggest that listeners contact parliamentary representatives and the media to express their views.

Women Voicing/His Master's Voice

In 1985, Westerkamp also expressed a commitment to feminism through her work as a composer. *Women Voicing* is a sound document about Canadian women's music,

produced by Westerkamp for *Musicworks* 31. It includes excerpts from the work of Alassie Alasuak, Wende Bartley, Susan Frykberg, Nellie Nungak,⁸¹ Ann Southam, Kim Erickson, Gayle Young, Westerkamp herself, and Pauline Oliveros as the sole contributor who is not Canadian. Excerpts are cross-faded and layered to produce a threaded narrative that brings together several disparate styles of music in conversation with each other, and with environmental sounds. At the same time, there is an emphasis on electroacoustic music, through the work of Southam, Frykberg, Bartley, Westerkamp, and Oliveros. This tape, along with the magazine issue, is an important document of a range of music, and writings about music, by women in Canada at that point. The issue editor, Tina Pearson, notes that it was a challenging project:

This issue of *Musicworks* is devoted to women, mostly Canadian women. We had quite a strong din of protestation and nervousness to listen to about making a women's issue, but still, undulating beneath it all is the calm deep rhythm of determination in *Women's Voices*. It has been challenging, but more so it has been hopeful and inspiring to listen, listen deeper, and help the rhythm unfold.

It is my hope that this listening will continue, that the vibration of its intent be felt, and that this issue of *Musicworks* will help toward balancing the sounds we all hear and make. (Editor's note, *Musicworks* 31: 2)

One of the excerpts on the cassette is from Westerkamp's *His Master's Voice*.

His Master's Voice is an angry satirical protest against the male macho voice that one hears so relentlessly here in the media. (Westerkamp, as quoted in Smolders, 1993).

This tape piece brings together many well-known voices of authority, including classical radio station announcers, Hitler (the first political leader to use radio and television to ideological effect) and Rev. Jones (of the Jonestown Massacre) with the sounds of loud recorded music played by passing motorists, using music to occupy a territory. Like *Cool Drool*, this is a dark satirical piece about the broadcast human environment. *His Master's*

⁸¹ Is this a construction of northerness as both of the included Native women are Inuit?

Voice, with its emphasis on male voices and masculinity, becomes a critique which is specifically feminist.

Harbour Symphony

In 1986, Westerkamp was commissioned by the Canada Pavilion at Expo '86 to compose a harbour symphony for the ceremony to open the pavilion. Harbour symphonies had been inaugurated at the Newfoundland Sound Symposium in 1983, but had not been attempted on anything near this scale. In 1988, Westerkamp would also compose a piece for the St. John's harbour at the Sound Symposium, for six boathorns. Her composition for Vancouver harbour was for over a hundred boathorns, from small pleasure craft to large cruisers.

Here in Vancouver the Harbour Symphony will be a first. I do not know of any other harbour in the world—of Vancouver's size—that has undertaken such a large-scale project. To hear so many of Vancouver's horns and whistles combined in one large environmental composition is a rare opportunity. I see it as a celebration of our spectacular harbour and of the landscape within which Vancouver is situated. As you know, horns and whistles make the shape of an environment audible and, vice-versa the environment shapes and modulates the sound of the horns. Vancouver is particularly interesting in this respect and with the available "sound power" of your boathorns we will be able to produce environmental music, rich with echoes and reverberation.... [Horns] are our soundmarks that give Vancouver its character and give us, often subliminally, a "sense of place." (from an open letter from Westerkamp to participants of the Harbour Symphony, March 14, 1986)

It is probably the largest environmental music event to be performed in Vancouver.

Location recordings of the performance were mixed and produced as *Inside the Soundscape #5*. A review of the piece in *Harbour and Shipping*, a journal of the maritime community, finds it notable for its dialogic and artistic qualities, bringing together a disparate community of individuals used to spending long stretches alone at sea, in an artistic event that celebrates everyday sounds by re-contextualizing them:

It was a tribute to the maritime community that the participants were willing and able to come together in such large numbers and close quarters without incident. And as an artistic or musical occurrence it took the everyday, working sounds of the harbour and combined them in a creative statement on the role of the harbour in the city and the country. (Drushka 1986: 24-25).

Westerkamp dedicated the piece to her brother Helmut, who, as a cadet sailor on the German training ship "Pamir," went down in a hurricane in the mid-Atlantic in 1957.

Teaching and Graduate Work

In 1986, *The Harbour Symphony* was a major public piece that brought Westerkamp national and international attention, and also made many people in Vancouver aware of her work. She was becoming established as a composer. At the same time, she had been teaching since 1982 at Simon Fraser University, and was a graduate student in the Department of Communications.

During this period, Westerkamp taught a course in field recording, studio techniques and compositional techniques with environmental sounds. Aware of her own ambivalent feelings about technology, Westerkamp attempted to balance studio work with body work by moving back and forth between the two, using Pauline Oliveros's sonic meditations as a guide:

We have a room right beside the studio, and we all lie down on the floor doing sonic meditations of various kinds, which gives you a chance to breathe, to get to know your voice and to experiment. The group really started experimenting with their voices. The techniques that they learned about equalizing and filtering in the studio, mic techniques—they heard that they could do very similar things with their own voices. So it wasn't just the equipment that was altering their voices or their sounds, but they themselves could alter their voices so that their body became an equalizing and filtering body—changing sound quality, sound colour, rhythms. Some of the students, both male and female, began to record their own voices, and apply some of the techniques in the studio. Then, in the next sonic meditation session they would try out what they had heard in the studio. There was a very interesting interaction going on between the studio techniques, and the body as an instrument, and group work. Then they got interested in recording the group, or recording several people making sounds together. So it went back and forth ... That was something I hadn't anticipated—and it was fantastic. It was really very interesting because it changed the nature of the pieces they came up with.... [We were finding] a way to work with [technology] that makes sense to incorporate it into one's life and into teaching life, so that it's not such an alien structure any more. (Westerkamp interview with McCartney, April 1993)

At the same time, she used the technique of role-modelling: asking questions herself, and demonstrating that she does not always remember every technique. This strategy, brave because it questions the authority and omniscience of the professor/technical wizard, has the result of making the teacher more approachable. She also encouraged students to

work as a team, if they preferred to, in order to get over the fear that often affects people when they are first confronted with banks of equipment. These techniques derived from her own experience of working in the studio, and her conviction that she can develop different ways of working in this environment:

If I've taught people anything, it is just to be humans and not to be afraid of asking questions, and not to get so spaced out in the studio that you actually damage the equipment and yourself. (Westerkamp interview with McCartney, April 1993)

Her teaching methods encourage students to focus on personal associations with the music that they are creating, as well as learning how to use the equipment itself. Her approach indicates to new composers that they do not have to give up contact with their bodies, or their subjectivities, in order to compose electroacoustic music. She taught at Simon Fraser University from 1982 to 1991.

As a graduate student at the same university, Westerkamp worked on a Master's thesis which was completed in 1988: "Listening and Soundmaking: A Study of Music-As-Environment." This study of the influence of background music or Muzak, which is piped in to accompany other activities, proceeds from ideas about soundscape and acoustic communication developed by R. Murray Schafer and Barry Truax, arguing that music-as-environment dislocates the listener from physical presence and self. Westerkamp includes a personal case study at the centre of the thesis, demonstrating how during her own childhood certain music became an imposed voice that affected her own listening and soundmaking.

The thesis builds on the writings of Attali (political economy) and Adorno (critical theory), both of whom provide a perspective on music in its social context. It also builds on the work of Deleuze and Kristeva who discuss culture and creative process from philosophical, psychoanalytic and semiological perspectives. The thesis argues that a balance between listening and soundmaking (sound input and sound output) is essential to the health of the human psyche, and that the perceptive immediacy of childhood and the cultural work of artists offer strategies by which such a balance can be regained—even as contemporary urban soundscapes attempt increasingly to erode it. It is suggested that the creative process is a balancing agent against an overload of sound input, and that one's own sound output or creative expression not only lessens the authority of externally imposed voices, but also offers a new voice of vitality and energy. (Westerkamp 1988: iii)

Westerkamp further explores the relationship between the perceptive immediacy of childhood and the soundmaking of contemporary musicians in her work *Moments of Laughter*, also composed in 1988 for a commission from the Vancouver New Music Society, which is based on Kristeva's ideas about laughter as crucial to the development of the child's self.

Moments of Laughter [traces] musically-acoustically the emergence of the infant's voice from the oceanic state of the womb: from the soundmakings of the baby to the song and language of the child. According to Julia Kristeva, moments of laughter are those moments in infancy and early childhood in which the baby recognizes the "other" as distinct from the "self." They are the first creative moments that speak of recognition of self and place. The child expresses these moments with laughter. (Westerkamp *Moments of Laughter* score, 1988: 1)

Meg Sheppard performed *Moments of Laughter* for the Vancouver New Music Society, where it was recorded for broadcast on *Two New Hours*, CBC radio. Elise Bedard performed it twice in 1988, at Music Hear and Now in Hamilton and the Sound Symposium in St. John's. It was performed by Debbie Boyko twice in 1988, at the Vancouver Art Gallery, and the Women in View festival, and once in 1989, at the Convergence conference of the Canadian Electroacoustic Community in Banff. I performed *Moments of Laughter* on radio in Toronto and in concert in Chicago in December 1998, and in a Kingston, Ontario concert in March 1999. I will analyze it later in the dissertation.

As well as completing her thesis and composing *Moments of Laughter* in 1988, Westerkamp also worked further with the recordings from the Zone of Silence. She composed *Cricket Voice* in 1987, and released *Music from the Zone of Silence* at the Sound Symposium in Newfoundland, in 1988, where she also composed a harbour symphony for St. John's harbour.

More Live Performances

In 1989, Westerkamp composed two new works, both for tape and live performer. *The Deep Blue Sea* is a collaboration with Norbert Ruebsaat, with text by Brian Shein, who died unexpectedly of cancer on May 30, 1988. Shein had been a formative influence on Ruebsaat, and a collaboration between the three in 1972 marked Westerkamp's and Ruebsaat's emergence as public working artists. Like *Moments of Laughter*, *The Deep Blue Sea* is a piece written about a relationship between a parent and a child, but in this case it is a non-custodial father and his daughter.

As with *Cool Drool*, the performer of *Kits Beach Soundwalk* is Westerkamp herself. It begins in a similar way to her radio program series about soundwalking, with Westerkamp at Kits Beach, telling the listener about the time of day, season, and what she sees as we hear the recording of the site. But then Westerkamp leads the listener into the studio, to the realm of bandpass filters and equalizers, the possibilities of imaginary dream worlds, and their relationships to the original place. This piece will be analyzed later in the dissertation.

Also in 1989, Westerkamp composed *Türen der Wahrnehmung* (Doors of Perception), a radio environment commissioned by Ars Electronica '89 in Linz, Austria, and Österreichischer Rundfunk.⁸²

Breathing Room

By 1990, Westerkamp and Norbert Ruebsaat had separated, both personally and artistically. Westerkamp composed *Breathing Room*, for two-channel tape, on a commission for Diffusion i MÉDIA, for their Electroclips CD. I analyze *Breathing Room*

⁸² It is first broadcast in September 1989 during Ars Electronica, broadcast into public urban places.

later in the dissertation. This tape piece is also adapted for the beginning and ending of the tape part for *École Polytechnique*, for eight church bells, mixed choir, bass clarinet, trumpet, percussion and two-channel tape, commissioned by Montréal Musique Actuelles/New Music America 1990.

On December 6, 1989 fourteen women were shot to death by Marc Lepine at the *École Polytechnique*, University of Montreal.... *École Polytechnique* is dedicated to the fourteen women.

This dedication is the essence of the piece and is what gives the piece its meaning: as a woman and a composer I cannot remain silent about this event and the impact it has had on myself and many others. I want to "talk back" to it. I also want to make room to remember it, to feel what needs to be felt, to breathe, to heal, to hope, to transform energies, and to understand the work that is ahead of us. I invite all listeners to take full advantage of this twenty-minute time span of *École Polytechnique* (a lot longer than it took Marc Lepine to kill fourteen women) to listen inward and search for what is sacred, what cannot be compromised, what cannot be allowed to be killed inside us and therefore not in the world. *École Polytechnique* is meant to provide the sonic/musical environment for such a journey inward. (HW: Program note, August 1990).

École Polytechnique was a challenging commission because of the emotional intensity associated with this tragic event. Westerkamp created a work that gives the listener physical space to breathe, intellectual space to understand and emotional space to feel what needs to be felt.

Breathing Room 2 (1990) is for tape, bottles, and audience, as well as for "The Guest," a sculpture by John Clair Watts that was in the gallery at the time. It premiered April 1990 at the Surrey Arts Centre, in Surrey, B.C. *Breathing Room 3 - A Self Portrait* is for spoken voice (Westerkamp) and tape. It premiered May 19, 1991 at Pitt Gallery in Vancouver.

I am now forty five years old. My mother is 84 and wants to go horseback riding again. I have two sisters. I have my daughter, of course, and I have women friends. I believe that, right now, the Golden Ball is hidden somewhere under a pile of clothes on the floor of my daughter's two rooms. She is thirteen and one room is at her dad's and the other room is at her mom's. The Golden Ball is where she is. Until she hands it on. (HW: *Breathing Room 3*)

The ending of this performance is about both continuity and rupture. There is a strong sense here of continuity in Westerkamp's relationships with women: her mother, her

sisters, women friends and her daughter. The rupture within continuity is indicated by the two rooms where her daughter lives, and by the reference to *The Golden Ball*, a poem by Münchhausen, that Westerkamp gave as a birthday present to her father when she was a teenager. The golden ball is the love that parents feel for their children and that children cannot return in the same form.

The Golden Ball gets thrown from one generation to the next and nobody throws it back. My hugs are not for him, I try to tell my father through the poem. My hugs are like the Golden Ball that gets handed on.
(HW: *Breathing Room 3*)

The *Breathing Room* series are studies of continuity and rupture in Westerkamp's life, at a time when she was confronting the personal loss and fragmentation surrounding separation and the severing of a long-standing and important artistic collaboration, as well as the potentials for new explorations afforded by breathing room.

At the Pitt Gallery (Vancouver) performance was the premiere of *My Horse and I*, for two-channel tape, with poem and reading by Sharon Thesen. Similarly to *Cool Drool*, this piece explores in a satirical way, the soundscape of the mall (specifically the perfume counter at Eaton's) through Thesen's poem which presents the surreal image of riding a horse into that reflective hall.

To the Present

Since 1992, Westerkamp's work seems to have followed two streams. One is the production of compositions that go inside and around the sonic formations of forests and water, from Canadian west coast recordings. The second is work influenced by Westerkamp's soundscape workshops through the Goethe Institut. This will be discussed later in the section entitled International Work.

Sonic Formations

Beneath the Forest Floor is composed from sounds recorded in old-growth forests on British Columbia's west coast. It moves us through the visible forest, into its shadow world, its spirit; into that which affects our body, heart and mind when we experience forest. (HW: program note, 1992)

It was commissioned by CBC Radio for "Two New Hours." Westerkamp composed it at CBC's Advanced Audio Production facility in Toronto, using sounds recorded by Westerkamp in the summer of 1991 in the Carmanah Valley, with the assistance of Peter Grant, whom Westerkamp had met at Co-op Radio.

Its stillness is enormous, punctuated only occasionally by the sounds of small songbirds, ravens and jays, squirrels, flies and mosquitoes.... A few days in the Carmanah creates deep inner peace—transmitted, surely, by the trees who have been standing in the same place for hundreds of years. (HW: program note, 1992)

As in *Cricket Voice*, here Westerkamp is working with a sparse wilderness soundscape.

Sensitive Chaos was commissioned by the Winnipeg Symphony Orchestra for the 1995 Winnipeg New Music Festival. It is a piece about the sonic architecture of water, which is always moving, always sensitive to the smallest environmental changes, always subtly changing the shape of its environment as it moves through it.

The German romantic writer Novalis called water *Das Sensible Chaos* (the sensitive chaos) and Theodor Schwenk wrote a book of the same name examining the formations of water and air. Both their work inspired me to explore water in its sonic musical shapes: water's surfaces and depths, its playfulness and its dangers, its frozen and moving shape; never static, always in motion, always externally shaped, fragile. (HW: program note, 1995)

Here, Westerkamp notes the influence of two German writers, a more explicit reference to her German roots than in previous work. She has also told me of the influence of German romantic writing on her approach to *Beneath the Forest Floor*, which she says brings together her experiences of forest as a child, with German romantic notions and west coast Native mythology about forest. These two pieces mark her growing acceptance of her German background within a Canadian context.

In *Talking Rain* the ear travels into the sonic formations of rain, into the insides of that place of nourishment as well as outside to the watery, liquid language of animals, forests and human habitations, all of which are nourished by the rain. (HW: program note, 1997)

Talking Rain again goes inside familiar sounds, rain sounds, to explore their rhythmic, melodic, timbral, and harmonic relationships with the world they move through. As with *Beneath the Forest Floor*, Westerkamp thanks Norbert Ruebsaat for providing some recordings made in the Queen Charlotte Islands, as well as magically finding the name for *Talking Rain*. While they have separate lives, Ruebsaat and Westerkamp continue to influence and contribute to each other's work. Westerkamp also thanks several others for recordings from the World Soundscape Project, and notes that a rainy forest soundwalk in Lighthouse Park formed another sound source. *Talking Rain* is not specifically connected to a particular location on the west coast, bringing together different experiences of rain from many locations.

International Work

Since 1992, Westerkamp has been invited by the Goethe Institut to undertake several international soundscape workshops. The first was in New Delhi, November 1992. Then in November 1993 and May 1994, she went to Brazil, in fact to Brasilia, a newly-designed city of over one million inhabitants which has only existed for less than forty years. Here, she led a sound excursion, and introduced a number of local people to the process of creating soundscape compositions with the help of Michael Fahres and Piet Hein van de Pool from Netherland Radio (NPS), who provided computer technology and technical expertise. These compositions were produced as a CD, *Soundscape Brasilia*.

Perhaps it is precisely the contrast between the anonymous international city sound of traffic and the cricket and cicada sounds specific to this place that characterizes acoustically what Brasilia still is: a pioneer venture, a master plan, modernist urban architecture with its claim for internationalism, cut into the Brazilian *cerrado* (bushland). It has in a sense "emigrated" into foreign, undeveloped territory, to start a new life, to transform social order and to negate and overcome underdevelopment in the rest of the country. But the soundscape reveals that the human psyche has not yet emigrated at the same speed, the

international character of the city is only audible in the sameness of traffic noise, the worst aspect of internationalism. (Westerkamp "Soundscapes of Cities": lecture presented in Tokyo, October 6, 1994: unpaginated)

Unlike her earlier work, this workshop was not focused on soundwalks, but rather on a sound excursion: the design of the city does not encourage walking in defined neighbourhoods, and the participants had to drive from one place to another. Westerkamp missed the social life of neighbourhoods, but many of the residents say that they like the city.

I was told again and again by people who live in Brasilia that they really like the city. Apparently, in comparison to the conditions in other parts of the country, the conveniences and practical advantages outweigh the feelings of cultural estrangements and loss of community life. There is a certain freedom in a place of cultural anonymity. It reminds me of my own emigration from Germany to Canada: to be freed from those traditions that are experienced as being restrictive means to have more freedom to move, both physically and psychologically. One is free to invent a new life and to hear inner voices not tied to the voices of tradition. There is a liberation in that. But deep down the longing for those small nooks and crannies, those intimate places, those village and city squares with their fountains and old oak trees, those bells that tell the time and make music, that longing stays. (Westerkamp "Soundscapes of Cities": lecture presented in Tokyo, October 6, 1994: unpaginated)

Westerkamp attempted to understand this new place through her own experience of being a resident of two different cultures. Her understanding was deepened by her experiences giving workshops in Tokyo in October 1994, and in New Delhi again in 1994, 1997 and 1998.

Her longer and more involved visits to India have resulted in several compositions: *Dhvani* (1996), a short tape piece; the *India Sound Journals*, to which she is constantly adding until the present; and *Gently Penetrating Beneath the Sounding Surfaces of Another Place* (1997). The latter piece, and its relationship to the *India Sound Journals*, is the subject of analysis later in the dissertation, where I will discuss the significance of this soundscape and cultural experience to her recent work. I also interviewed Westerkamp about her compositional process with this piece, which formed the basis of the "In the Studio" section of the CD ROM.

Hildegard Westerkamp's current work is multi-faceted. After several years editing the Soundscape Newsletter for the World Forum for Acoustic Ecology, she has passed this responsibility on to others in order to focus more on composition. She is also on the editorial board of the new *Soundscape* journal. Westerkamp is still actively involved as a sound ecologist, sitting on the boards of the Canadian Association of Sound Ecology and the World Forum for Acoustic Ecology. She visits India frequently, working with a group of New Delhi residents on various soundscape projects that have grown from earlier contacts. In the fall of 1999, she will go to Israel to do a workshop with a group of Israelis and Palestinians. She also visits Germany more frequently than before, spending time with family as well as performing and presenting workshops. Westerkamp continues to compose in her home studio in Vancouver.

Chapter Five

Analytical Methodologies:

Listening to Electroacoustic Music, Reading Responses

Composer and music theorist James Tenney points out that by the 1960s there is a gulf between the conceptual framework of 20th-century music theory and musical practice, a gap which is particularly evident with electroacoustic music:

... the disparity between the traditional concepts and the actual musical "object" becomes even greater with the more recent (non-instrumental) electronic and tape-music. But even here, the problem is not really one of a lack of familiarity, but of a nearly complete [disjunction] between music theory and musical practice. Thus, even when the novelties of the various styles and techniques of 20th-century music have become thoroughly familiar, certain "complexities" will still remain outside of our present conceptual framework, and it is clear that this conceptual framework is in need of expansion (Tenney (1961)1992: 4).

While Tenney originally expressed his concerns about the conceptual framework of contemporary music theory in 1961, I believe that his statement still holds true in general.⁸³

Very few electroacoustic works have been described in detail, and still fewer from a listener's perspective. More importantly, perhaps, there remains a prevailing attitude that listening is not a suitable basis for musical analysis of such works. This attitude is evident in an article entitled "The Analysis of Electronic Music," by Marco Stroppa. Writing in 1984, he says that although hundreds of electroacoustic works existed at that time, he could find no specific analyses:

One might have expected such a wealth of pieces to have stimulated major theoretical comment, as was the case with instrumental music in the period after 1950. But the landscape of thought and criticism is surprisingly

⁸³ For instance, theory classes in many university undergraduate programs maintain a primary focus on harmonic analysis.

barren.... If we count specifically examples of musical analysis, the number is reduced simply ... to zero. (1984: 176)⁸⁴

Stroppa discusses the difficulties he encounters in attempting to analyze Jean-Claude Risset's *Songes* for tape. He notes the absence of a written score: while composers often produce schematic representations of the work, they are often, in Stroppa's view, "crude and approximate, particularly in comparison with the complexity and perfection of traditional notation" (1984: 177).

The alternative, he decides, is listening. Yet he does not trust this either:

Perception fanatics seem to suggest another, radically different approach. "Let's get rid of the written text, and think more about what happens to our ears!" they say. Perhaps they are right, but then they must be prepared to limit themselves to the discovery of a few superficial features, a few oppositions of contrast, and little else. Unfortunately, perception, as it passes through the sieve of our auditive system, is an extremely variable personal phenomenon. For the same sound stimulus, everyone has a different perception and reaction. It seems difficult, therefore, to establish common, objective elements on such changeable bases. (1984: 179)

As a result of this apparent impossibility of reading or listening, Stroppa concludes that works for tape alone are "at present impossible to transcribe and analyse—and in this case we can only be sure of a relative and superficial analytical understanding" (1984: 180). He is making this claim on the basis of a number of assumptions that I do not share. He suggests that one has to choose between listening and using a written text. Theorists such as Tenney who are interested in auditory perception do not suggest getting rid of the written text, but instead using it as only one strategy in the analytical process, which is based on listening as well as reading whatever is available. Mixing scores and composers' transcriptions do not give all necessary information, but then neither does any score,⁸⁵ as

⁸⁴ Ann Basart's bibliography of electronic and serial music has a section entitled "Analysis and Theory" for serial music, but no such section for electronic music, indicating the dearth of analyses in 1963. However, by 1984, there were a few available, for instance Larry Polansky's analyses of James Tenney's early electronic works (Polansky 1984).

⁸⁵ Although the emphasis on pitch (and to a lesser extent, rhythm) in traditional scores encourages analysts to focus on these aspects to the neglect of others which are more difficult to notate.

Stroppa admits. More importantly, close and repeated listening does not limit the analyst to superficial features: each time the analyst listens, increased depth is possible. Stroppa emphasizes the subjectivity of listening, giving objective and therefore privileged status to the written score. While variations exist in listeners' perceptions of sound, they also exist in what people read in a score.

Tenney's approach to music analysis, as elaborated in *Meta+Hodos* (1992), seems important to me in its focus on *listening intently* to the work, and in its equal consideration of the musical parameters of pitch, loudness, timbre, duration, temporal density (the number of successive elements in a particular time-frame), vertical density (the number of simultaneous elements sounding), and envelope (the shape of onset and decay of a sound). Tenney's method of musical analysis is based on the gestalt perceptual principles of cohesion and segregation, applied to the perception of the clang (a sound or sound configuration that is perceived as a primary musical unit) and their perceptual organization into sequences (successions of clangs on a larger perceptual level or temporal scale), creating a perceived musical form. Using Tenney's approach (but not always his terminology), I listen to works by Westerkamp, noting gestalt patterns of different parameters and how these interact in the creation of a musical form.

Perceptual Transformations

There are several processes that Westerkamp uses in much of her work. These include the use of long excerpts of unchanged field recordings; juxtaposition of edited and manipulated sounds with original recordings, subtle transformations of sounds using reverberation and filtering, extended use of pitch-shifting (or in analog work, tape speed changes), and the occasional use of more radical transformation processes. In the following pages, I want to consider each of these processes with regard to their perceptual importance, following Tenney's ideas from *Meta+Hodos*, and how these

perceptual factors are related to recurrent issues raised in listener responses to the five pieces that form the next group of chapters.

Unchanged field recordings and narrativity

When listeners hear excerpts of pieces by Westerkamp in which field recordings predominate, such as the beginning minutes of *Kits Beach Soundwalk*, a common reaction is to question its status as music. To many people, field recordings sound too close to the sounds of everyday life, too full of narrative content, to be musical. This is particularly true with recordings that include human vocalizations (apart from singing), since our ears hear best within the human vocal range, and we are pre-conditioned to pay more attention to human vocalizations and to their potential meanings. Westerkamp wishes people to pay attention to the musical qualities of everyday sounds as well. She accomplishes this by juxtaposing these unchanged recordings with excerpts of the same recordings, subtly transformed to highlight their rhythmic, harmonic, melodic and timbral patterns of movement through time, emphasizing links between narrative and music.

Katharine Norman (1994) defends narrativity as musically important because of the way that composers who work with what she terms "realworld" sounds "celebrate a *connection to the real world*" (1994: 104).

... when we listen to a processed realworld sound, and recognize it as such, we regard the composer as 'doing' something to familiar material. Processing becomes an activity that guides, and changes, our previous understanding of the source; it offers an interpretation.... in offering a new interpretation of something that, nevertheless, remains "known" from reality, realworld music invites us to deploy, and develop, "ordinary" listening skills; it encourages us to feel that we are involved, and participating, in the creation of a story about real life. (1994: 104)

Norman emphasizes that even when the recordist does not speak, signs of his or her intervention in the field recording still exist as traces of a presence. For instance, in her discussion of Michel Redolfi's *Desert Tracks*, she says:

In his recordings the sounds culled from the California desert are at times inseparably fused with the signs of his intervention: sounds travel as he moves the microphone about, we hear the sound of the microphone being handled, scrunching gravel, a rock moved and replaced. In fact all the natural but tell-tale signs of a mediating human being who in his quest for the "desert tone," literally scratches the surfaces to activate aurally reticent surroundings. He is very much a storyteller who leads us through the tale: his "metanarrational" presence becomes part of his material, and part of his subject. (1994: 106)

This metanarrational presence transmitted partially through the perceived motion of the recordist through the space is similar to the presence I hear in Westerkamp's field recordings for *Gently Penetrating...*, and why I refer to them as soundwalks (even though she would not). In the sections of the piece using unaltered field recordings, it is as if I walk with her through the streets of New Delhi, hearing vendors in the distance, approaching, walking by.

Two interesting questions arise in relation to this narrativity and the presence of the recordist: how does Westerkamp create a connection between real world and processed sounds in her studio work; if the composer is telling *a* tale, are listeners hearing her tale and/or imagining other stories? In order to describe how Westerkamp creates connections between real world and processed sounds, I turn to Tenney's ideas about gestalt perception.

Juxtaposition-transformation and cohesion-segregation

Tenney interprets ideas regarding visual gestalt perception, based on the work of Max Wertheimer, in relation to sonic phenomena (1992: 28ff). The two primary factors producing cohesion are proximity and similarity:

Applied to auditory or musical perception, the factor of proximity might be formulated as follows: in a collection of sound-elements, those which are simultaneous or contiguous will tend to form clangs, while relatively

greater separations in time will produce segregations—other factors being equal. (1992: 29)

... in a collection of sound-elements (or clangs), those which are similar (with respect to values in some parameter) will tend to form clangs (or sequences) while relative dissimilarity will produce segregation—other factors being equal. (1992: 32)

When Westerkamp transforms a sound through electronic processing, with the intention of highlighting its musical aspects, she will often place the processed sound in close proximity to the original recording, emphasizing the similarities between the original sound and its transformed version. In my interview with her about the creation of *Gently Penetrating...* (which is discussed in Chapter Ten), she discussed this directly in the case of the scooter horn. This is a technique that I have noticed often in other pieces as well. In *Cricket Voice*, the original cricket song continues through much of the piece, juxtaposed with many transformations. In a transitional section between the beach and dream sequences in *Kits Beach Soundwalk*, the original barnacle sounds are in close proximity to their filtered counterparts.

In most cases, when Westerkamp changes a sound, she focuses on one particular parameter. For instance, she will filter the sound to emphasize high frequencies, or add reverberation to alter the envelope of the sound. Thus, when she places these sounds in close proximity to the original, changing only one parameter of the sound, she creates a situation in which listeners will perceive the original and processed sounds fusing into one clang or sequence, which has been coloured or highlighted to emphasize a particular parameter, bringing the listener's attention to it.

Another way that Westerkamp uses both proximity and similarity to emphasize cohesion among sound-elements is to group sounds with similarities in certain parameters. For instance, in *Gently Penetrating...*, she groups together clanking sounds on the basis of their similar timbres. In *Kits Beach Soundwalk*, she works with a variety of high-

frequency sounds. This grouping together of sounds based on a common element increases the level of subjective intensity experienced by the listener: for instance, with the clank mix in *Gently Penetrating...*, the listener hears a sudden torrent of sounds related by their timbre. This focuses attention on the clank mix, bringing these sounds which formed the background of a sound environment into the forefront of the listener's attention. Then, when they are heard again, they are noticed in a different way.

When the attention is focussed upon one element or group of elements more directly than it is upon others in a clang, the relative musical importance of the various elements must obviously be different, with the less intense elements taking a subordinate role in the total configuration.... The situation here is analogous in many respects to the distinctions between figure and ground in visual perception—the figure generally being distinguished by what Koffka calls a greater "energy density," and by a higher degree of "internal articulation" than the ground. (Tenney 1992: 40)

By taking sounds that were originally heard in the background of sound environments, and intensifying them by grouping them together or increasing their amplitude, Westerkamp makes them more musically important, focuses attention on them, and reverses their position from ground to figure. Listener responses to Westerkamp's works often include commentary on hearing everyday sounds in different ways. Also, listeners comment on their reactions to certain groupings of sounds, such as high-frequency sounds, machine noises, or the sounds of children's toys, indicating a shift of attention from ground to figure in their perception of these sounds.

Yet another way that Westerkamp connects processed and field sounds is through processing one source sound to link with a different source. For instance, in my interview with her about the composition of *Gently Penetrating...*, she discusses hearing a similarity between the scooter sound and a certain gruff quality in some of the adult male voices, a similarity that she intensifies through processing, then juxtaposing those sounds. She also alters one of the pitch-shifted bell sounds to harmonize with part of a vocal sequence.

Listeners respond to this through describing a sense of flow in the work, in which sections are not strongly demarcated but there is a constant sense of gradual flux.

Some sounds are processed more radically. Once again, Westerkamp places these sounds in the vicinity of the field recording they are derived from. Because these sounds are often different in more than one parameter, they would tend to be segregated further from the source sounds than from others. Westerkamp generally uses such radical transformations to a more limited extent than other, less radical ones.

Pitch-Shifting, Scale and Interiority

In addition to building on ideas developed by Tenney, I used concepts employed by film sound designers. One of the primary ways that Westerkamp transforms sounds is through shifting their pitch. This process alters the sound scale.⁸⁶ As well as changing the speed of movement through the envelope of a sound, which changes its time scale, pitch-shifting a sound also changes its perceived scale in space as well—giving the impression that the sound is being produced by a larger source for sound files pitch-shifted down, and a smaller source for sound files pitch-shifted upwards.⁸⁷ The amplification and slowing down of small sounds can create an imaginary space where these small sources are enlarged to human scale or beyond. Changes in scale have another perceptual effect as well: a change in focus, as Tenney writes:

We know from our visual experience that a change in scale of a picture of a thing, or a change in the distance from which we view a thing—whether it be a picture, a landscape, or the figure of a person—can substantially alter the total impression we will have of it.... The full range of this process might be illustrated by imagining a scene—say a field of wheat—which from a certain distance will appear continuous, having a

⁸⁶ I am applying this term as it is used by film sound designers. Rick Altman defines it: “the apparent size attributed to characters and objects by the characteristics of the sounds they make” (1992: 252).

⁸⁷ In the *Cricket Voice* responses, there are references to “giant crickets” when Westerkamp slows down the cricket song.

homogeneous texture that is unbroken by contrasting elements. If one moves closer, this texture will gradually become less and less homogeneous, until at last the distance is so shortened that one's field of vision can only encompass a few of the elements—the stalks of wheat. At this point, those elements which before had been absorbed into the larger unit—perceived as texture, but not distinguishable separately—become whole units in their own right, and the spaces between them are seen as real breaks in continuity. Similarly, if one starts from the original vantage-point and increases the distance from the field, one will eventually reach a point where the whole field is only an element in a larger scene—a larger gestalt—that includes houses and a road perhaps, and other fields of a different color or texture. Again continuity has been replaced by a relative discontinuity. (1992: 19)

I include such an extensive quote here because it seems so important in relation to Westerkamp's work. As I note in the previous section, she establishes continuity and connection between the sound environment and elements of her composition by juxtaposing sequences that focus listeners' attention on musical aspects of sounds with field recordings that take the listener outward to a larger gestalt that includes other sounds. With pitch shifting, she moves in towards elements of the sound envelope that are not usually perceived because they move by too fast. By slowing the sound down, she allows the listener to hear greater articulation in these elements. By pitch-shifting downwards octave by octave, she maintains a harmonic connection between the sound sequences (and a timbral connection: the slowed bicycle bell sounds are still heard as bells, but as different bells—church or temple bells). Since these sound sequences begin at the same time, the effect is to gradually move in towards the details of the sound, at the same time perceiving more discontinuity as the sequence progresses, and each juxtaposed octave is moving at a different speed through the envelope. As listeners pay more attention to these details, the larger gestalt of the original recordings moves further out of focus, enabling Westerkamp to use the later portions of these sequences as transitional points in the work.

When Westerkamp shifts the pitch of a sound, she changes its character more than with the subtle transformation of adding reverberation or filtering. Pitch-shifting downward (also known as time-stretching), like its analog counterpart tape-speed change, focuses attention on the envelope of the sound, since the effect is to slow down the sound, moving through onset, sustain and decay over a longer period, allowing the listener to hear the intricacies of the sound. Just as a microscope allows a viewer to see the internal microstructures of an organism, pitch-shifting allows a listener to hear microstructures in the evolution of a sound through time—metaphorically speaking, to hear the inside of a sound.⁸⁸ While I am referring here to the perception of the sound, this feeling of interiority seems to be associated in listeners with human mental and physical states as well as with the sound itself. This concept of movement between inside and outside, internal and external states, is one that arose repeatedly in listener responses to sections of Westerkamp's work in which pitch-shifting is used. Listeners would write about dream states, fantasies, and movement from internal to external environments, and sometimes specifically associate these movements with slowed (time-stretched or pitch-shifted) sounds (see particularly *Gently Penetrating...*, *Breathing Room*, and *Cricket Voice*).

David Schwarz discusses a similar movement between internal and external states in the music of Steve Reich, focusing on his works *Different Trains*, *It's Gonna Rain*, and *Come Out* which, like Westerkamp's work, use recognizable environmental and vocal sounds as well as transformations of those sounds in a compositional process. Schwarz refers to such music as creating a "sonorous envelope" that activates the imagination, which he associates both with the mother's voice and the womb, associations which Westerkamp explores in *Moments of Laughter*. Schwarz defines the sonorous envelope in terms of

⁸⁸ I have heard several composers refer to this: Barry Truax talks about hearing the inside of a sound in reference to granular synthesis, which, like tape-speed changes, moves through a sound more slowly. Also, Wende Bartley has used similar terminology, referring specifically to the microscope analogy that I use here.

lack (of binary opposition, structural markers, and regular phrase structure), whereas I would describe the same music by Reich in terms of its focus (on timbral qualities, gradual transformation, rhythmic shifts) facilitated through repetition. However, what is most interesting about Schwarz's discussion is his insistence that this movement between interiority and exteriority can be experienced as positive or negative:

The relationship between the sound of the maternal voice and the infant within the sonorous envelope is paradoxical. On the one hand, envelopment suggests undifferentiated, oceanic, expansive oneness; on the other hand, it suggests being contained, enclosed, and marked off. Thus, the sonorous envelope can be either a positive or negative fantasy. (1997: 277).

This quote is particularly interesting in relation to some listener responses to Westerkamp's work as unsettling or disturbing. Recently, when I gave a paper on Westerkamp's *Cricket Voice* at Concordia University, Paul Théberge suggested to me that some of the listener responses that indicated disturbance or fear may be because of a fear of "going inside," a movement that many listeners experience in relation to Westerkamp's work. I thought this was an interesting suggestion: when I read Schwarz' article a few days later, the connection was more obvious. Schwarz makes reference to Freud's conception of the uncanny:

Freud discusses the uncanny not in terms of a binary opposition between the comfortable, familiar world "inside" (the mind, the home, society, etc.) and a threatening, external, evil force. Rather the uncanny seems to emerge *out of what had been familiar*. Freud discovers this dynamic within the etymology of the word *heimlich* (familiar, in German). Freud realized that the word first meant "familiar" "trusted" and slowly acquired additional connotations of "secret" and "hidden." (1997: 289, his emphasis)

When a sound is slowed down, its internal workings are revealed, and what was familiar becomes unfamiliar. For some, to "go inside" a sound, to move from a feeling of exteriority to one of interiority, can seem threatening and constraining (see especially

"Alien-ated Responses" in the *Cricket Voice* chapter).⁸⁹ For others, this is a positive experience that can enhance movement from exteriority to interiority in their daily lives: for instance, many listeners spoke of Westerkamp's work as being meditative, indicating a movement towards a focused and clear internal state.

A new place sings back

I want to transport listeners into a place that's close to where I am when I compose, and which I like. They're going to occupy that place differently, by listening to it differently, but still, it's a place. HW

Westerkamp begins with a specific place—the location of recording. Through the process of composition, a new place is created which is connected to the original location, transformed through Westerkamp's experience of it, and by her compositional choices. This creates a work that says something about the place, while leaving room for listeners to inhabit it in many different ways. In the chapters that follow, I will consider listener responses to five of Westerkamp's pieces.

Electroacoustic Music Analysis and Listener Responses

A way of achieving the goal of focusing both on the acoustic and psychoacoustic phenomena of musical works, as well as their meanings to various listeners, is to integrate a musical analysis based on listening to all parameters of the music with a wide variety of listener responses. Michael Bridger's (1989) approach to the analysis of electroacoustic music, borrowing from Roland Barthes's *S/Z*, claims to integrate

⁸⁹ Westerkamp moves between interiority and exteriority in her works using a variety of means. *Moments of Laughter*, for instance, explores the boundaries of private and public, external and internal, subjectivity and objectivity, by examining the sonic relationship between mother and child, normally considered private, in the public realm of the concert hall. In *Cricket Voice*, she also uses spatialization to move sounds around the listener, circling in close, and at times appearing to move sounds through the listener (this is particularly apparent using headphones). Also in *Cricket Voice*, interior spaces are evoked through the amplification of Westerkamp knocking on and stroking various types of cactus, gestures that reveal the inner resonances of the plants. However, I focus on pitch-shifting here because it seemed to evoke the strongest responses from listeners.

empirical investigation with listener responses. It appears from the article that his listeners are his electroacoustic music students.

Bridger, like others, points to the absence of a score as a problem, but solves it by developing a simple graphic notation. Initially, he attempts to graph all features of the music, but decides that this approach is too complex. He then decides on salient features of the pieces, relying on what attracts listeners' attention:

it is perhaps not surprising that appearances in the music of identifiable elements of conventional *music*, or the human *voice*, or of recognisable *concrète* sounds were three characteristics that seemed always to attract listeners' attention. Three further characteristics, this time not of sound types, but rather of ways of organizing, differentiating, developing that material into expressive statements (again derived from discussion with listeners) were *location*, *dynamics* (interpreted broadly to include both volume and activity levels) and those recurrences, juxtapositions or transitions that were perceived as having *structural* significance. In total, then six 'codes of signification' emerged.... (Bridger 1989: 148, his emphasis)

Bridger's work is an important expansion of electroacoustic music analysis in its attempts to synthesize methods of analysis from music and other disciplines, by its analysis of several parameters, extending analytic focus beyond pitch and tonality, and by its inclusion of salient features identified by listeners. My own approach differs from Bridger's in that while he analyses the music depending on what listeners hear as salient features, I attempt a deep descriptive analysis of each piece, attempting to mark as many features as possible, then compare my analysis with other listener responses.

When I read Bridger's work, I wonder who these listeners are? How many are there? How old are they? What is their cultural background? Their gender? What level of musical training do they have? All that Bridger tells us is that he led discussions:

Having been involved in teaching aspects of electroacoustic music to undergraduate students for many years, I decided to take whatever

opportunities I could to develop not only views on this music, but also a framework for eliciting those views, less from my one [sic] prejudices, judgments and speculation, than from discussion and empirical investigation. (Bridger 1989: 147)

So these are listeners in Bridger's music classes, taking part in discussions with their professor. This is a particular interpretive community, as described by Stanley Fish (1980), a community which has particular assumptions, aims and concerns. Fish claims that interpretations are shaped by the institutional forces of a particular community. One particularly interesting account in his book is the claim of a student that she could pass any course in the English department by focusing on interpretive routines that were currently acceptable: nature vs. culture, large mythological oppositions, the fragmentation of the author's own anxieties and fears, and so on (1980: 343). If one accepts the power of institutional forces within an interpretive community, it would follow that open discussions with a professor in his class would be likely to affirm the professor's value judgments, rather than questioning them. In his article "Rethinking Contemporary Music Theory," Patrick McCreless argues that members of a discipline (he is talking about music theory, but the argument could apply to other academic disciplines) tend to be motivated to maintain the boundaries and assumptions of that discipline through validation of those boundaries and assumptions:

That is, internalized structures of disciplinary power serve as a force to motivate individuals to define themselves within the discipline by "producing," so that by thus strengthening their connection to the discipline, they strengthen the discipline itself both by expanding its knowledge and by validating its hold upon them. (McCreless 1997: 33)

It is interesting to note how the values and assumptions that I discussed in Chapter Three are reinscribed by Bridger's analytical project. I will follow some of his references to John Cage's *Fontana Mix* in comparison with other works in the selected group, showing how value judgments about Cage are reinforced and maintained.

the fragments of voice in *Fontana Mix* are assumed to be randomly overheard snippets, removed from the original contexts that could have

created a sense of personal expression; in contrast, the electronically processed fragments incorporated in [Karlheinz Stockhausen's] *Telemusik*, though similarly transplanted into the composition, somehow do preserve a quality of communication at a primary level. (Bridger 1989: 151)

Here Bridger implies a listener's point of view when he says that the vocal fragments "are assumed to be randomly overheard snippets." He tells us that the Cage piece does not communicate to the listener in contrast with Stockhausen's work which communicates on the basis of a sense of personal expression. But who is the listener here? He does not say.

In *Fontana Mix*, some of the most striking ingredients are the fragments of choral and orchestral sound that make fleeting appearances, but as with the voice elements mentioned above, the immediately apparent structural principle of random collage denies the possibility of a committed emotional response. The brief fragment of organ music, strategically placed towards the end of *Poème Électronique*, on the other hand, creates both by its placing and the clearly intentioned repetition a much more telling impact. (1989: 152)

In this quote, collage appears as *random*, not as structured chance procedures, set against the *strategies* and *clear intentions* of Varèse's work. Who has decided which ingredients are most striking? Whose emotional response are we talking about? Which listeners?

They remain inaudible.

The barking dog at the end of *Fontana Mix*, and the similarly placed sound of a plane taking off in *Poème Électronique*, establish a sense of impending closure (presumably by design in one case, by accident in the other!). (1989: 153)

Just in case we did not get the point earlier, he repeats the opposition between Cage and Varèse.

Except in the case of *Fontana Mix*, which eschews formal, progressive structure in the case of indeterminacy of its collage, the pieces display many of the traditional concerns of any composer, of this and earlier epochs, in shaping material into convincing aesthetic and expressive designs. (1989: 157)

The focus here has shifted entirely from listening to the concerns of the composer, specifically a definition of composition in which indeterminacy apparently does not fit.

A revolution even more epic in scale, if ultimately less productive, was made by *Fontana Mix*, with the quantum leap of its evident abandonment of structural intentionality making a massive shift to a qualitatively different philosophy of musical structure; the other formal innovations in the works involve new *methods* of structuring, but do not redefine the value and role of structure itself. (1989: 157)

Here, Cage is given his due as a composer who led a revolution "epic in scale," though it is still qualified as unproductive. In the final sentence, Bridger describes Cage's work as redefining the value and role of structure itself, rather than as redefining the value of intention *in* structure, i.e. creating structures built on non-intention. Again, the focus is on the role of the composer. The listeners, only ever appearing as an undifferentiated group, have completely disappeared from the discourse.

The focus in Bridger's discussion remains exclusively on the internal workings of the music, with no references to meaning:

Even when not specifically intended to do so by their composers, works in a medium that encompasses categories of sound primarily associated with 'real-life' rather than 'artistic' activity are likely to suggest programmatic or descriptive analogy to listeners. In view of this, it is perhaps remarkable, even a tribute to their composers' handling of the medium, that these particular works did not seem to evoke stronger extra-musical images. Only [Luciano Berio's] *Visage*, with its overtly quasi-dramatic ambience, creates a consistent and persuasive sense of narrative, and, because of this, more abstract qualities of structure are somewhat eclipsed as the listener's attention is engaged by the episodic event-flow expected in an idiom akin to film or radio drama. (1989: 158)

Here, he acknowledges that one work does elicit meanings, but does not consider them worthy of notice: he does not say what those meanings are.⁹⁰ He praises the composers

⁹⁰ This assertion that meaning is not important is also found elsewhere in the field of music theory, an attitude criticized by Walter Benjamin. Writing in 1988, in his article "Canadian Music and the International Marketplace," Benjamin finds limitations in music theory based on excessive attention to formal rules, as well as a lack of focus on both sound and meaning: "Training in music theory has undergone a revolution in recent years, but it too is plagued, in its treatment of new music, by limitations. One is an undue preoccupation with music as strings of symbols generated via formal rules; another, which complements the first, is a lack of understanding of music as an acoustical, or psychoacoustical phenomenon, as sound structure rather than symbolic string structure; and a third is a reluctance to come to terms with music as having meaning including various kinds of extra-musical meaning." (1988: 129)

for avoiding the suggestion of descriptive analogy, yet I would suppose that students aware of Bridger's beliefs about music and self-referentiality would be unlikely to discuss any images that they experienced. While Bridger's work is valuable as an exploration into the incorporation of listeners' responses, this annexation of listener responses remains at a superficial level, not really disturbing the discussion of accepted knowledge within the electroacoustic community, and the assumptions that support it. My study incorporates listener responses in a much more integral way. I include responses from a wider range of interpretive communities, facilitate frank discussion through the use of pseudonyms in individual written responses, and represent more of the listeners' voices through reference to extensive quotes in their own words.

To some extent, I have been guided in this by feminist studies. Analysis of electroacoustic works within feminist musicology does attempt to include discussion of meanings as well as the internal workings of the music. Susan McClary notes the importance of this approach in her analysis of work by Laurie Anderson:

Most of the analytical techniques that have been developed in academic music theory slide right off her pieces. Because much of her music is triadic, the harmonic theory designed for the analysis of the standard eighteenth- and nineteenth-century repertoires might seem relevant. But all harmonic theory can do is to label the pairs of alternating chords that often serve as the materials for her pieces. (1991: 135)

McClary's approach goes beyond harmonic analysis into a discussion of critical theory as it relates to gender, technology and the body in performance, situating Anderson's work socially and politically as well as musically. At the same time, McClary's own analysis of Anderson's "music itself" (1991: 139ff), like traditional harmonic analysis, focuses much more on pitch and tonality than on other parameters of the music such as timbre and rhythm. She discusses the social meanings of pitch and tonality, but does not extend her analysis, except in passing, to other aspects of the musical language. Also, in McClary's

work, while there is significant focus on the listening process, it is McClary's listening. A wider variety of listener responses is not included.

Reception Theory and Listening

Reception theory emerged initially in literary theory as a project to problematize the traditional supremacy of the author's intent, and to provide a space for the consideration of how readers read texts, how they change texts through their interpretation of them.⁹¹ Although initial work in this area focused either on the nourishment of an 'ideal reader' who would be well-informed enough to appreciate a work, or on the mediated responses of mass audiences, constructed statistically, more recent work has focused on particular individuals and their shifting relationships to various interpretive communities.

⁹¹ For an introduction to the major thinkers in reception theory, see Holub, Robert C. *Reception Theory: A Critical Introduction*. New York: Methuen, 1984. Holub discusses the ideas of many German theorists starting in the '60s, particularly Jauss and Iser. He also follows the roots of their thought in Russian Formalism, the sociology of literature, and Prague structuralism. In another section, he discusses alternative models developed through communication theory, Marxist reception theory from East Germany, and empirical reception theory. For an introduction to contemporary work in cultural studies, see Cruz, Jon, and Justin Lewis, eds. *Viewing, Reading, Listening: Audiences and Cultural Reception*. Boulder, CO: Westview, 1994, which considers broad questions of representation in cross-disciplinary research. This book does focus more on viewing and reading than on listening: there is only one article on music, and although another refers to MTV in the title, the article itself focuses on visuals. See also Hall, Stuart. "Encoding/Decoding." In *Culture, Media, Language*, ed. S. Hall et al. London: Hutchinson, 1980. Empirical texts are more common in literary studies than elsewhere, and seem to concentrate on nourishing the 'ideal reader.' See, for example, Anderson, Philip, and Gregory Rubano. *Theory and Research into Practice: Enhancing Aesthetic Reading and Response*. Urban, IL: National Council of Teachers of English, 1991. For reception issues in music, see Leppert, Richard, and Susan McClary, eds. *Music and Society: The Politics of Composition, Performance and Reception*. Cambridge: Cambridge University Press, 1987. This anthology, while important because it brings questions of reception into the musical realm, considers mostly historical and theoretical issues. Any responses discussed are in the published domain. Marcia Citron's *Gender and the Musical Canon*. Cambridge: Cambridge UP, 1993, considers questions of reception in music, particularly as they relate to canonicity. Again, responses are from published texts. Judith Vander's *Songprints: The Musical Experience of Five Shoshone Women*, Chicago: University of Illinois Press, 1988, is an excellent example of how long interviews with respondents can contribute to a deeper understanding of musical culture. Robert Walser's *Running With the Devil: Power, Gender, and Madness in Heavy Metal Music*, Hanover: Wesleyan University Press, 1993, also refers to individuals' musical experience, including quotes from fans' letters to music magazines, and the results of a survey Walser conducted with fans at concerts. These results are in summary form.

It is this more recent work that interests me the most, because of its emphasis on individual voices within different community contexts. In earlier research projects,⁹² I have worked using a research method based on listening and responding to issues raised by informants, making use of "generative themes," a term used by Paulo Freire (1983, 1988). Freire advocated literacy education based on the concerns of the students, and the development of critical awareness of their socio-political position through discussions which were built around themes that were generated by the participants' concerns. I was also influenced by "respectful intervention," an approach used by Fr. Gerry Pantin (1982) who led the community group SERVOL in Trinidad, a group that was the focus of my educational research in 1986. SERVOL had achieved great success from grass-roots beginnings by focusing on listening to people, and responding to issues that they raised. Important aspects of respectful intervention are a focus on issues raised by people in the community, the balancing of the researcher's voice with those of the research subjects, and a respect on the part of the researcher for the ideas and experiences of those people.

When my research interests shifted to focus on gender and technology in the late 1980s, I was drawn to the work of Evelyn Fox Keller, particularly her writing about Barbara McClintock, one of the three women scientists whose epistemology is discussed by Lorraine Code in an earlier quote in this dissertation (Chapter Three, page 121).

McClintock, a geneticist, spoke of "letting the material tell you," (quoted in Keller 1983: 179) and developing a "feeling for the organism" that showed a respect for her research subjects, and a focus on their particular situation, that resonated with the way that I had begun to do research. I also found Donna Haraway's discussion of "situated knowledges" (1991: 198) useful in her focus on the agency of research subjects, and her suggestion

⁹² "Perspective Transformation: The Development of a Critical Method to Introduce Learners to Computers." Master's degree in Adult Education, St. Francis Xavier University, 1990; Science and Technology Careers Workshop, Trent University 1987-1992.

that the production of knowledge be considered as a conversation between researcher and subjects.

Until this point, my research had been from the perspective of adult learning. When I began graduate work in Music and decided to research women composers, I found some useful discussions of dialogic research methods in ethnography⁹³ and feminist research methodologies.⁹⁴ I experimented with methods of ensuring consultant interaction in my Master's thesis in Music at York University (McCartney 1994). In that work, I interviewed fourteen women electroacoustic composers from across Canada, and discussed their lives and compositional approaches. An important part of that project was to communicate with all the consultants after the initial draft was complete, sending them drafts of sections including their quotes and my interpretations of those quotes, in order to allow them to make editorial changes: editing their quotes; deleting any information that they did not want to divulge publicly; and polishing the style so that they were not the raw complements to my very cooked writing. This ensured that they had some measure of control over editing processes, so that I was respecting their wishes while representing them and developing my own lines of thought. With the present study, I have extended my consultation process to include an ongoing conversation with Westerkamp, and have attempted to construct dialogues with listeners about her work through the use of extensive quotes.

My respect for the voices of research subjects is similar to the respect shown by Westerkamp for the voices of the places that she records. In her work, these voices remain in balance with her transformations of them, and retain an important place in her works through the use of unchanged field recordings as significant components of the

⁹³ For instance Clifford and Marcus, 1986; Sanjek, 1990; Minh-Ha, 1991; Tedlock and Mannheim, 1995.

⁹⁴ See for instance Anderson and Jack 1991; Shulamitz 1992.

pieces. My own research work includes long quotes from research participants, and discussions of issues raised by them, in ways that are intended to reflect my respect for their diversity and for differences from my own views. I attempt to maintain a balance between the voices of my consultants, and my transformations of those voices through my interpretations of what they are saying and how they relate to each other.

In much the same way as Westerkamp creates a dialogue between her imaginal world and the recorded sounds through juxtaposition of unchanged field recordings and transformed sounds, I wish to create a dialogue between my ideas, issues and explanations and those of the participants in my research. Westerkamp listens to the recordings, hearing emergent patterns in sounds that might otherwise remain in the background, then juxtaposes these background sounds of a similar timbre, melody or rhythm to bring the listener's attention to them. In a similar way, I juxtapose participants' quotes about issues that had not occurred to me initially, that moved from the background into the foreground of my attention as I read through the responses and saw similar issues emerge repeatedly in some listeners' responses. Sometimes I would see a repeated word, such as "essentialism," or a repeated phrase, such as "the miracle of birth." Occasionally it would be a group of related places, such as movements from inside to outside places in responses to *Breathing Room*. At times, related imagery would catch my attention, such as the stories of alien confrontations in responses to *Cricket Voice*. I grouped these related words, phrases, references to places and imagery, in much the same way that Westerkamp groups sounds with related sonic parameters. It was only after I had made these groupings that I would look for groupings in identity among respondents who had made similar commentaries.

At times, in my readings of responses to Westerkamp's work, I began researching an issue raised in the responses that truly confounded me at first, for example the "alien

confrontation" responses to *Cricket Voice*. I have been concerned at times that I tend to write at greatest length about responses that differ most from mine, seeking what I might refer to as productive dilemmas, searching for those moments of confusion. Jack Mezirow (1988)⁹⁵ writes that disorienting dilemmas result in the most significant and lasting learning, because they change a person's assumptions. Attinasi and Friedrich (1995: 18) refer to these significant turbulent moments as "dialogical breakthroughs," and suggest that the intervention of others' ideas is essential to their genesis. Clearly, this kind of learning excites me. It is a moment of subjective intensity, where suddenly my own ideas are transformed and thrown into a different perspective by others'. I have attempted to balance this excitement by making sure that productive dilemmas are not the only source of fuel for writing, representing also the voices of those who identify with Westerkamp's approach in a similar way to my response.

Westerkamp wants to leave room for listeners to encounter places differently, depending on their own experiences. In a similar fashion, I wish for the audience to be able to experience Westerkamp's works in their own ways. I ask for open-ended responses, encouraging participants to write in whatever form they like, such as poetry or short phrases, allowing room for a creative response to Westerkamp's work. I ask participants to respond individually, before group discussion and possible consensus.

My desire for diversity of interpretation also influences my open interpretations of listener responses. By quoting metaphorical and imagistic listener responses next to more prose-oriented quotes, I create a dialogue not only between different ideas, but also between different ways of thinking. I believe that writing that uses poetic forms of language as well as more traditional academic forms can offer access to different ways of

⁹⁵ Another author who influenced my Adult Education work during this same period.

thinking about issues.⁹⁶ Sometimes, after grouping related responses, I ask open-ended questions or suggest several possible explanations for responses rather than defining a single interpretation based on my own opinion. By focusing on the issues raised in the responses, and by speaking to those issues, my intention is to avoid what Ruth Behar (1995: 151) calls the "violence of representation" that pays no regard to what subjects actually say. I wish to leave some space for the reader to construct their own interpretations, based on what I have recorded and presented, in dialogue with a range of responses that are inevitably framed by me, but hopefully not therefore unduly restricted.

My approach to the incorporation of listener responses contributes to the recent focus on specific listeners and their relationships to interpretive communities, and how this constellation of responses can create a more multi-faceted knowledge about a musical work. My pilot project in music reception was a comparison of listener responses to several Canadian electroacoustic works. The design of that project, as well as my thinking about many of the issues that it raised, owes much to the recent work of Karen Pegley,⁹⁷ whose approach, based on group reception, questionnaires and individual interviews of respondents to Madonna's *Justify My Love*, is enticing both due to its focus on actual listeners and to her direct engagement with issues in music that are at once controversial and sensitive. I decided for this initial project to concentrate on works that seemed to test the boundaries of acceptability in some way: acceptability as music, or as electroacoustic music. One such type of work is the controversial, the focus of argument and debate, of booing and cheering. I think here of just a few well-known examples from other types of music: the initial reception of Stravinsky's *Rite of Spring*, Bizet's *Carmen*,

⁹⁶ The enjoyment and challenge of unusual ways of writing is part of the reason I am attracted to the writings of John Cage (1961), Trinh Minh-Ha (1991) and Luce Irigaray (1991), as well as the school of "ethnopoetics," particularly through the work of Dennis and Barbara Tedlock (D. Tedlock 1972; D. and B. Tedlock 1975; B. Tedlock 1987; D. Tedlock and B. Mannheim 1995).

⁹⁷ Pegley, Karen. "Justify Whose Love': Queer(y)ing the Reception of Madonna." *Conference Proceedings, International Association for the Study of Popular Music*, Havana Cuba, October 6-8, 1994.

or many of Madonna's concerts. When a piece or a performance becomes controversial, it inspires public debate over aesthetic, epistemological, and ethical issues. Even though controversy involves criticism as well as approbation, it holds the possibility of reinforcing canonic representation, if not initially then perhaps eventually, through the attention accorded both the composer and the work.

Some works inspire controversy, while others seem to evoke no response. "Silence" is ambiguous: a dictionary definition of the noun includes absence of sound, stillness, absence or omission of mention, the state of being forgotten, oblivion, concealment, secrecy. The verb "to silence" implies the overpowering of one by another. Elizabeth Long (1994) notes that in the textual communities of reading groups, silence is used as a form of control by group members to discourage certain reading directions. Composers I have talked with attribute silence about their pieces to embarrassment, ignorance, lack of caring, and avoidance of issues, but are never sure what people mean by their silence. I do not know of an instance where silence about a piece has given it canonic status. Silence can also mean not worthy of attention; one of my respondents questioned whether these pieces were worth studying. This is the assumption that I think underlies the relations among controversy, reception, and silence. Marcia Citron says:

[Reception] serves as the framework in which pieces are reviewed and marked off for attention. This attention implies that the work must be worthy of attention and therefore important. Even if the assessment is negative, an implied significance is present that is missing when a work is not reviewed. Attention in print [or other media] can lead to further performances and potential canonicity. (Citron, 1993: 168)

One of the most interesting pieces in the group of works from this initial project in relation to controversy and silence was Westerkamp's *Moments of Laughter*. While the initial public response to this work was fairly muted, with only a few listeners reporting to Westerkamp that they found it "too personal," the anonymous listener responses to this

work in my study were sometimes strongly worded, almost hostile, indicating some of the controversial issues that may lie behind the silence of some audience members.

These reactions also point out an advantage of my approach to listener responses. I ask listeners to respond in writing, using a pseudonym. I do not ask any specific questions about the work: "these responses can be in any form—phrases, paragraphs, poetry... and about any aspect of your listening: musical structure, imagery, memories, places that the piece evokes" (listener response form). This format, to a certain extent, frees listeners from the constraints of a listening community, emphasizing individual response. They know that they are speaking to me, but that in most cases, I do not know who they are. Often, in discussions after a listening session, people would express less oppositional viewpoints, and would certainly use less loaded language. But in the written responses, protected by the cloak of a pseudonym, sometimes they would be quite unconventional—or brutally honest—about their reaction to the work. These responses, while sometimes disturbing, provide important clues to the range of attitudes that inform musical values.

The pseudonyms allow respondents to create an alternate identity if they wish. For instance, some women chose a "masculine" name, such as David, or Ralph. Although some men chose ungendered names such as Rusty, none chose a "feminine" name. Many respondents chose flamboyant names such as "Malaclypse the Younger." In some cases, they had literary associations, such as Ishmael.⁹⁸ Some did not include a name, in which case I would give them one. Sometimes the names chosen by respondents had an uncanny connection to their attitudes: the young man who shouts (in his words) "Shut up

⁹⁸ The narrator from Melville's *Moby Dick* (also the last line in *Blue Lagoon* by Laurie Anderson is "call me Ishmael").

lady!" in response to Westerkamp's *Moments of Laughter* calls himself "Biff," a combative⁹⁹ pseudonym that conjures up for me an image of a cocksure young tough.

While the anonymity of the responses encourages individual reactions to works, slowing the movement towards consensus that characterizes group work, similarities among groups of responses did emerge. For instance, many women's studies students were concerned about essentialism and several electroacoustic composition students made comments about the use and extent of electronic manipulation. Another issue is the extent to which particular works appeal to different groupings or interpretive sub-communities of respondents.¹⁰⁰ Marcia Citron says that an intended audience is already inscribed within a musical work:

Such a figure is no socially neuter presence, but rather an individual defined by social location, especially gender, class, nationality, sexuality, and race. This does not mean that the piece holds less meaning for some other kind of respondent, but rather *different* meaning. (1993: 174, her emphasis)

Citron goes on to ask whether there is such a thing as a woman's response to musical works. She notes the problem of essentialism with such a question, and discusses how postmodern theorists claim that anyone can read or listen "as a woman." Citron insists that the political position of women, more than their biology, can affect their listening. While listeners are certainly affected by their political positions, it is important to note that any listener responds not only in relation to one political location, but to a constellation of them. For instance, a listener in my sample may at one point be responding influenced by her identity as a woman, at another as an immigrant to Canada from Vietnam, at another as a music student, at another as a composer, at another as an

⁹⁹ As in cartoon language accompanying superhero fights: "biff! boom! bang!"

¹⁰⁰ Information about the ages, genders, ethnicities, and compositional backgrounds of respondents, as well as the locations of listening sessions are summarized in Appendix E.

adolescent, at another as a lesbian, at many points influenced by some combination of these identities.

The ability of a listener to speak clearly from any of these positions is differently constrained and enabled, depending on the privileges and limitations associated with each position.¹⁰¹ For instance, electroacoustic composers and composition students were more likely to articulate clear commentary on the musical structure and compositional strategies of Westerkamp's works. At the same time, their focus on musical structure sometimes led them to exclude other aspects of the work, such as the meanings of sounds or imagery related to sounds: composer McCreless, reading Rose Subotnick, notes that it is not just focus that may be at work here: structural listening is more highly valued in music theory than listening for meaning:

... structural listening, at least in its more limited forms, is self-reflexive and hermetically sealed from social issues.... Subotnick rightly charges that our educational system has for years insisted on structural listening at the expense of socially aware listening, and that if our system of values prizes the former excessively over the latter, young musicians will remain insensitive to extramusical meaning, or, alas, like many music theorists, simply ignore it. But structural listening does not logically or perceptually exclude other types of listening. (1997: 47)

McCreless goes on to assert that it is not necessary to make a choice between structural and socially-aware listening: both can happen, if the analyst considers both worthwhile, and the musical analysis will be enriched as a result. However, in the case of my listening sessions, most respondents only had the opportunity to listen to a piece once. In this situation, I would suggest that they tended to return to strategies that were most familiar to them—in the case of electroacoustic composers, structural listening.

¹⁰¹ For further discussion of the issues of authority and identity raised in this section, see the anthology edited by Judith Roof and Robyn Wiegman, *Who Can Speak? Authority and Critical Identity*. Urbana, Illinois: University of Illinois Press, 1995. For further discussions of disciplinarity and interpretive communities, see the anthology edited by David Schwarz, Anahid Kassabian, and Lawrence Siegel, *Keeping Score: Music, Disciplinarity, Culture*. Charlottesville, Virginia: University Press of Virginia, 1997.

A more radically restricted listening occurs when listeners decide that a piece does not count as music: at this point, they appear to stop listening for musical aspects. The attitude that the piece is not music prevents them from hearing its musical structure at all. This happened with some of the electroacoustic composers: even though they clearly had the skills to articulate a musical structure, they stopped using these skills at the point that they dismissed a piece as "not music." At the same time, electroacoustic composers are generally privileged as authoritative listeners to electroacoustic music: as insiders, trained and skilled practitioners, they are considered as experts.

Listeners without such highly developed musical skills generally made more tentative and less detailed commentary on musical structure. Not considering themselves skilled authorities as structural listeners, their responses tended to be more muted. My approach in the analyses is to juxtapose these briefer, more muted responses with more detailed and articulated descriptions of the musical structure, indicating points of similarity and difference. This tends to amplify these more muted responses, through juxtaposition with those of experts.

I was fortunate in this work to have access to a number of interpretive communities, who were able to contribute differently to my understanding of a range of listener responses. For instance, the 'restricted listening' of students in a graduate course in Women's Studies tended to focus primarily on concerns about gender identity, essentialism and gender stereotyping. The more articulated responses in this group were used in juxtaposition with less clearly articulated responses by others which I *read* as gender issues. Following Beverley Diamond in her discussion of musical life stories on Prince Edward Island, I refer here to those less articulated responses as "enacted":

... if an interviewee said that her father played the fiddle and, further, that s/he didn't know why women didn't play very much, that was regarded as an articulated gender issue. However, if a consultant simply described male fiddle players without drawing attention to the gender specificity implied by the description, this was considered an "enacted" gender issue. The distinction may seem pedantic but it served as a tool for examining patterns of gender awareness. While everyone "enacted" gender issues in their musical dealings with other people, only a limited number "articulated" gender issues in relation to very specific experiential contexts. (Diamond 1999: 5)

Using this term makes the important point that gender issues do not disappear because people are unable or unwilling to articulate them. They are still there, taking place silently. When they are understood as enacted, it brings these issues to the attention of the researcher even though the respondent may not recognize them as such.

Similarly, an undergraduate class in ethnomusicology was more aware and articulate about issues of race and class, as well as gender, than were other listeners, and tended to focus more on these aspects of the music. Again, I included their articulated responses in tandem with enacted responses about the same issues. Another group, the adolescent girls, were much more articulate about memories of family in relation to *Moments of Laughter* than other groups in my sample. I was able to use their responses both to amplify less articulate responses about family life in other groups, and to problematize this difference among respondents.

In the previous paragraphs, I note a persistent interest in disciplinarity and how it affects listening. This is likely an increased concern because most of my listening sessions took place in university or high school classrooms. I did make concerted efforts to expand this listening sample, such as asking for responses on the internet, writing personal letters to people in India who had heard Westerkamp's music, playing pieces on the radio and asking for responses, making listener response forms available at several concerts of Westerkamp's work. The amount of effort involved in these approaches was considerable,

yet I accumulated a much smaller number of (sometimes quite brief) responses in comparison with the results from large "captive audiences" available in educational institutions, who tended to write extensive responses. I have often been critical of surveys that are limited to academic institutions. Having now done such a project, I am more sympathetic than before, realizing the very practical considerations involved.

While I am interested in differences and similarities among the responses that I received to these works, my main interest is how they add to my knowledge about the pieces of music and the issues raised by the music. My juxtaposing of responses from listeners of different disciplines is an attempt to balance the restricted listening associated with each discipline. As throughout this dissertation, I am attempting to move towards objectivity not through removing myself from the object of study, but by using each piece of music as a way of sounding out a range of responses that will amplify and complicate each other, recognizing that each respondent is, in Lorraine Code's (1991) terms, a "second person"¹⁰² who can add in some way to an understanding of the particular musical piece, as well as a range of other issues related to it. The knowledge thus gained is still limited—by the fact that most of the responses originate in academic institutions, by the fact that most of my respondents are Canadians, and primarily by the fact that only one person is framing them. While my committee guides me well, and Westerkamp has been very generous in reading and responding to my work, the analysis is mine. I comb through the database, select parts of responses in relation to issues that I have noticed, juxtapose them and discuss similarities and differences among the responses.

So how is my listening reduced? I am a white European-born woman, as is Westerkamp. We both spent part of our childhoods in institutional environments: for Westerkamp, a

¹⁰² I discuss Code's formulation of this phrase in Chapter Three, "Knowing One's Place" (p. 3ff).

factory; for me, a hospital. We immigrated to Canada within days of each other, have both married, had children, divorced, struggled to find our creative voices, and found a space to do that in soundscape composition. How much of this experience was inscribed into the relatively abstract piece *Cricket Voice*,¹⁰³ which outwardly does not seem to be about any of these things, except the last? How much do these similarities in our experiences make me the inscribed listener that Marcia Citron writes about? Certainly these connections affect me as an analyst of her music. My responses to most of her work have been overwhelmingly positive: I still listen to it with joy, after spending months listening intently and writing about it.

In order to describe Westerkamp's music, I have engaged in analytical description, attempting to understand the musical structure by hearing its major sections and its overall shape. I have brought together listener responses, searching for common issues that emerge throughout. I have also attempted to understand her approach to music by working in similar ways myself. My interest in participatory research began with my experience as a student in Cultural Studies at Trent University in 1983, where many courses integrated theoretical and practical components. My learning in this situation was much deeper and more significant than it was in purely theoretical or purely practical courses. Since then, I have attempted to integrate creative participation into all my research projects, and to seek out learning and teaching situations that emphasize praxis.¹⁰⁴ My creative engagement with Westerkamp's work took me along several

¹⁰³ I note in Chapter One that the experience of hearing Westerkamp's *Cricket Voice* had a galvanic effect on me, in fact transformed my life quite fundamentally.

¹⁰⁴ Three examples of learning situations are the fourth year Cultural Studies course that I took with Jody Berland in 1983, which included a field trip to New York City (where I met John Cage) and ended with a multi-media performance; the first course that I took at York with James Tenney which was about John Cage and led to my realization of Cage's *Circus On...* score; and a fieldwork course with Beverley Diamond which focused on my participation in a summer Computed Art intensive at Simon Fraser University. Situations in which I have taught using this approach include sessions at the Science and Technology Careers Workshop at Trent University from 1989-1993 (see McCartney 1991).

related paths. In the development of my electronic installation, *Soundwalking Queen Elizabeth Park*, I joined Westerkamp on a soundwalk, listening with her, then composed pieces about the park using compositional techniques similar to Westerkamp's. I also rehearsed and performed *Moments of Laughter*, learning to produce the sounds described in the score, and feeling the emotional intensity of this piece each time that I went through it. This allowed me to experience a number of different roles in relation to Westerkamp. The complexities of these roles emerged in my performance of *Moments of Laughter* in Chicago, as part of a larger performance that also included several of my own works. There I was acting as performer, composer and musicologist simultaneously. In the *Soundwalking* installation, I was working with Westerkamp's recording. I thought a lot about her statements about treating sounds with respect, as I worked with the sounds of her presence within that place. Also, the process of making this installation led me to discuss my own compositional process, and to acknowledge how it differed from Westerkamp's as well as how it was similar.

My approach to understanding Westerkamp's work has involved many different kinds of dialogue: between myself as listener, musicologist, composer and performer and her as recordist and composer of the works; between her approach to composing and my approach to analysis; and among the ideas of other listeners, my own ideas, and those of scholars writing about issues raised by responses to the works. These dialogues shape the interpretations of the pieces that form the focus of the next five chapters.

Chapter Six

Soundwalking as Subjectivity in Environment: *Kits Beach and Queen Elizabeth Park*

In the mid-1970s, two events coincided that have changed the way I think about sound: the World Soundscape Project and the founding of Vancouver Co-operative Radio. (Westerkamp 1994: 87)

As a researcher with the World Soundscape Project, directed at Simon Fraser University by R. Murray Schafer, Westerkamp studied the soundscapes of various places in Europe and Canada in terms of their sociological, aesthetic, philosophical, and scientific significance. Also, through her contact with Schafer and his attitudes towards listening, Westerkamp developed her own approaches to listening to the sound environment, including a practice of soundwalking, individually and in groups (see also Chapter Four, pp. 138-142).

Her involvement with Vancouver Co-operative radio gave Westerkamp a place to actualize some of her ideas about sound ecology, particularly through her *Soundwalking* show. Her intention with the *Soundwalking* show was to take listeners to various locations in their immediate area, the Vancouver region, then to play back the sounds of these environments to listeners, framing and contextualizing them through on-air commentary. Sometimes, as in a program about Lighthouse Park, she would read excerpts of others' writings (in this case, Emily Carr). The shows often had a political point made acoustically — for instance *Silent Night* contrasts the name of the Christmas carol with the reality of acoustically crowded reverberant shopping malls in the weeks before Christmas, juxtaposing cash registers and holy music; *Under the Flightpath* repeats the words of residents saying they don't hear the planes any more, with the roaring of jets overhead.

Soundwalks and Composition

In her 1974 article about soundwalking, Westerkamp says that the functions of a soundwalk are orientation, dialogue and composition. We can use a soundwalk for orientation when in an unknown environment, as a mariner would use sounding to understand unknown waters.

Or go for an orientation walk in the city, any city, asking people for directions. Besides not getting lost that way, you will also get to know a little of the character of a city by listening to the way people answer. Listen to the sounds and melodies in their voices, listen for accents. (Westerkamp 1974: 25)

Dialogue can involve responding to the call of a bird or animal, finding echoes of landscape formations and building structures. Both orientation and dialogue are necessary for soundwalk composition:

Go out and listen. Choose an acoustic environment which in your opinion sets a good base for your environmental compositions. In the same way as the architect acquaints himself with the landscape into which he wants to integrate the shape of a house, so we must get to know the main characteristics of the soundscape into which we want to immerse our own sounds. What kinds of rhythms does it contain, what kinds of pitches, how many continuous sounds, how many and what kinds of discrete sounds, etc. Which sounds can you produce that add to the quality of the environmental music? Create a dialogue and thereby lift the environmental sounds out of their context into the context of your composition, and in turn make your sounds a natural part of the music around you. Is it possible? (Westerkamp 1974: 25)

To further understand Westerkamp's approach to soundwalks in composition, I first describe a soundwalk that we did together in Queen Elizabeth Park, Vancouver on August 17, 1997. This description indicates some of the issues that arise about listening, improvisation in response to chance events in the environment, and recording techniques that arise during a soundwalk recording. I then analyze *Kits Beach Soundwalk* (1989), a piece which Westerkamp describes as a compositional extension of her approach from the radio shows.¹⁰⁵

¹⁰⁵ To further explore how I approach soundwalking in interaction with Westerkamp's ideas and my own compositional process, in Appendix G I describe an electronic installation that I have made based on the soundwalk that Westerkamp and I did together, *Soundwalking Queen Elizabeth Park*.

A Soundwalk in Queen Elizabeth Park

Queen Elizabeth Park, situated close to where Westerkamp lives in Vancouver, is a place that she has visited frequently. It is a landmark of the area, described in tourist brochures as "Vancouver's oasis," containing the city's only tropical garden under the triodetic dome of the Bloedel Conservatory at the highest point of the park (also the highest point in the city), which provides a beautiful view of the urban area and surrounding mountains.

Queen Elizabeth Park is visually extremely attractive. It is a post-card park which captures the eye with such immediacy that the other senses are easily neglected. On this walk however, do not neglect your ears. Listen to the "soundtrack" of the park, and explore how much it harmonizes with your visual impression. (Westerkamp 1974: 21)

I had thought about Queen Elizabeth Park many times, as I read Westerkamp's description of her soundwalk there in 1974. I remembered visiting the park when I was a teenager, and being astounded by its profusion of flowers. My soundwalk with Westerkamp in 1997 was my first visit to the park since becoming acquainted with her article.

As we moved through the park on that soundwalk, we were connected by our ears. Westerkamp carried a portable DAT recorder and stereo microphone, while I had two still cameras: a good 35 mm., and a lower quality automatic, for surprise moments. I wanted to keep a visual and aural record of our walk, so that I could reflect on it later and make a multimedia presentation (now the "Soundwalk in the Park" section from the main menu) as part of the CD ROM on Westerkamp.

Being connected by our ears was intensely intimate: we were sharing a private, amplified perspective on the park. Occasionally, I would disconnect my headphones in order to take a photograph, instantly changing the relation. At that point, I no longer shared the auditory connection, and in the process of framing Westerkamp, separated myself from her perspective momentarily before returning. When Westerkamp was doing close-up

recording, I took photos without disconnecting. In these cases, I was restricted by the length of the headphone cord—just a few feet. I remember this being particularly obvious when we investigated the area around a creek that ran through the park. As I leaned backward to take a photograph, and Westerkamp leaned forward to close-mike the creek, we teetered just on the edge of balance, almost falling more than once, and laughing in our precarious choreography. Somehow, these three positions of listening connection, photographic framing, and framing while listening seem like my relationships to Westerkamp as a composer, a musicological researcher, and as a friend. At times, I am listening with her, at times reflecting on her work to comment on it or frame it from the perspectives of various critical theories, always attempting to balance these perspectives, at times teetering on slippery ground, seeking balance through the choreography of friendly dialogue and laughter.

Our walk took about ninety minutes, generally following the path that Westerkamp had mapped in 1974, through different areas of the park. It was a warm, sunny summer Sunday evening, and there were many visitors enjoying the evening there.

Parking lot area

The most exposed area of the park is the parking lot ... Walk towards the fountains and continue to listen to the city sounds until they disappear behind the sounds of water. (Westerkamp 1974: 21)

We began our walk by the parking lot area, where we immediately noticed a difference from Westerkamp's initial walk there in 1974: the fountains that she described in this entrance area were no longer functioning. There was nothing to mask the city sounds, so they were omnipresent. For a park which was originally designed around water sounds, this was a significant absence.

At the beginning of the soundwalk, Westerkamp identified the place, date and time of recording. She believes that it is important to recognize that places sound different from time to time, and of course the results of the soundwalk differ depending on who is doing the recording.

Knife-Edge

Close to the fountains you will find a metal sculpture ("Knife Edge" by Henry Moore). Explore it visually as well as acoustically...Produce a wide variety of sounds...Put your ear against the surface and listen to the inside (Westerkamp 1974: 21)

A group of students were passing, and Westerkamp invited them to play the sculpture, which they did quite enthusiastically and loudly. As she circled the sculpture, I could hear the character of the sounds change according to the players' motions, and our shifting perspective. Afterwards, the players were curious about what we were doing there, why we were recording. We talked for a few minutes, then went on.

As we walked over from the sculpture towards the Conservatory, an airplane passed overhead, with its characteristic falling glissando. Westerkamp guided the microphone towards the building vents of the Conservatory, timing her motion so that the sound of the airplane seemed to be swallowed by the rising amplitude of the broadband vent sound, in one continuous gesture.

Conservatory

When you walk into the conservatory, you are entering an artificially created, tropical environment ... Does it look and smell and feel tropical? Does it sound tropical? (Westerkamp 1974: 21)

The Bloedel Conservatory is a miniature tropical rainforest, constructed by BC's largest lumber company, an exotic gem perched in an urban centre, no chainsaws in earshot.

Once again, Westerkamp noticed a difference from her earlier walk. The waterwheel in

the conservatory was not working properly; its characteristic sound was muted and uneven. The conservatory was filled with tropical plants, fish and birds, including some very vocal and hilarious green parrots who were mimicking children's greetings and screams.

Sunken Garden

...a section of the park which is acoustically of special interest. Can you hear the sounds of the city disappear while you walk down into the garden? Observe its formations and explore how much these influence its acoustics. (Westerkamp 1974: 23)

The Sunken Garden is built in an old quarry, and the high stone walls of this area block outside sounds. I heard the sound of traffic almost disappear, with the exception of the occasional siren, providing an experience with more acoustic clarity, the quality that Westerkamp identifies with wilderness. Next to the path, which wound down to the lower level, some Sunday drummers were playing, reminding me of High Park in Toronto, and Mount Royal Park in Montreal. Their drumming accompanied us as we walked down towards the waterfall, and by chance intensified as we approached the water, seeming to mimic the intensity of the water from our perspective. In the flower beds of the sunken garden is a large, prickly plant like a giant rhubarb, several feet tall. Westerkamp says that it disappears entirely in the winter. We stopped and recorded our fingers touching the underside of the leaves. Again, a passerby approached to ask what we were doing, and we talked for a while. Here we altered Westerkamp's original route slightly, and went towards the creek.

Creek

Sit down and let the sounds of the flowing water soothe you. The water winds its way through channels and gaps between rocks and murmurs in new voices, which you have not heard yet. And if you were to listen to more water there would be more new voices, an endless variety of them.... (Westerkamp 1974: 23)

We spent more time at the creek than anywhere else. Westerkamp is fascinated by the endless variety of water voices, and her approach to close-up recording articulates them well. She shifted from one stepping-stone to another, moving the stereo microphone to highlight how the water found its way through crevices, over boulders, around branches in its path, illustrating the architecture of the creek bed, and the dance of the water through its sculptural forms. I was fascinated by the timbral diversity of the different water sounds, and the sense of flow in the recording, created by the dance between the creek waters and Westerkamp's movements around them.

When we reached the pasture at the end of the creek, we noted a loud motor sound like a leaf-blower or something of that kind. It was partly masking the quiet, high-pitched trickling of the water, but we couldn't locate the source.

Quarry Garden

We walked up the hill towards the quarry garden, which was cut into the mountain below the Conservatory.

The main acoustic feature of the Quarry Garden is its echo. Discover it and find out where and how it is produced. (Westerkamp 1974: 23)

We could hear the echo quite clearly off the side walls of the garden. We could also hear the motor sound, even louder here. It diminished as we moved to one side of the quarry and climbed the steps to the top. It was only later, as I worked with the recording to excerpt sections for the website, that I located the source of the motor sound: the building vents in the Conservatory. The quarry, cut into the mountain, acted to funnel the building vent sound down to the creek.

At the top of the quarry garden, the steps led out to the lookout area, crowded with sunset-viewers. We listened for a moment, then ended the soundwalk.

We walked again through the park this April, when I visited Westerkamp to hear her in performance and talk about the CD ROM. It was earlier in the day, earlier in the year. The park was in full spring bloom, and the waters were lower. Shouldn't they have been higher in spring? But of course, the parks department controls water levels, not the seasons, and without the amplification of the recording equipment, we had to lean closer to hear the water voices whispering.

This experience of doing a soundwalk with Westerkamp, and listening to how she records the sound, was a very interesting one. I was amazed by how the final sound document, over an hour long, was practically seamless. Each moment flowed into the next. Even though, in order to describe the structure of the park, we spoke of it as having different areas, in the recording there are segues or border regions (walking down into the quarry of the Sunken Garden, for instance, the acoustics would subtly change over time) rather than the rigid boundaries that appear on a map.

I was taken by moments of synchronicity, like the intensification of water sound juxtaposed with the intensification of the drumming, and how Westerkamp immediately responded to these opportunities. I also enjoyed how people would ask what we were doing. I am used to recording with smaller microphones, and the large, shock-mounted microphone that Westerkamp used on this day seemed to make people curious and invite them to approach us, leading to conversations with other park visitors in the middle of the soundwalk. Other than these conversations, we said little. Westerkamp would announce each area on the tape, and make short comments about what we saw. Mostly, we listened

in silence. As I listened to the tape months later, I had visceral memories of events and sensations in the park.

Kits Beach Soundwalk

Kits Beach Soundwalk (1989), a composition that begins with a soundwalk recording at Kits Beach, comes out of Westerkamp's experience with the Vancouver Cooperative Radio show:

About ten years ago I produced and hosted a radio program on Vancouver Cooperative Radio called *Soundwalking*, in which I took the listener to different locations in and around the city and explored them acoustically. *Kits Beach Soundwalk* is a compositional extension of this original idea. (HW: *Transformations* liner notes. 1996: 23)

I have presented *Kits Beach Soundwalk* to listeners as it appears on the *Transformations* CD, as a recorded piece. Westerkamp also includes it in performances, doing the commentary and diffusing the sound live accompanied by the rest of the piece on tape. Her program note indicates her interest in the acoustics and cultural significance of the place of recording:

Kitsilano Beach—colloquially called Kits Beach and originally in native Indian language *Khahtsahlano*—is located in the heart of Vancouver. In the summer it is crowded with a display of "meat salad" and ghetto blasters, indeed light years away from the silence experienced here not so long ago by the native Indians.

The original recording on which this piece is based was made on a calm winter morning, when the quiet lapping of the water and the tiny sounds of barnacles feeding were audible before an acoustic backdrop of the throbbing city. In this soundwalk composition we leave the city behind eventually and explore instead the tiny acoustic realm of barnacles, the world of high frequencies, inner space and dreams. (HW: *Transformations* liner notes. 1996: 23)

Musical Structure

The tape part of *Kits Beach Soundwalk* is structured in dialogue with the spoken commentary. I will describe it here interspersing initial commentary with Westerkamp's score for the spoken part. The score does not include any timings, since Westerkamp uses

specific sounds on the tape as cues. I have added timings from the CD version to facilitate my discussion.

The piece begins with about twenty seconds of the Kits Beach ambience, with waves lapping the shore, birds in the background, and the deep hum of city traffic as an acoustic backdrop.

[00:21]¹⁰⁶ (Bird)
It's a calm morning,
I'm on Kits Beach in Vancouver.

[Ducks quacking]

It's slightly overcast — and very mild for February.

[CD version says January]¹⁰⁷

It's absolutely windstill.
The ocean is flat, just a bit rippled in places.
Ducks are quietly floating on the water.

[A slightly louder wave]

(Waves)
I'm standing among some large rocks
full of barnacles and seaweed.

[Louder waves again]

The water moves calmly through crevices.

[Seaplane overhead]

The barnacles put out their fingers to feed on the water.
The tiny clicking sounds that you hear, are the meeting of the water and the barnacles. It trickles and clicks and sucks and...

¹⁰⁶ This section is built around Westerkamp's performance score. My comments and additions are added in square brackets [].

¹⁰⁷ Although the recording was made in February, Westerkamp found that word difficult to say in performance, so changed it to January.

(Trainhorn, crow)
The city is roaring around these tiny sounds.
But it's not masking them.

[Louder waves and crow]

(Wave)

[1:42] I could shock you or fool you by saying that the soundscape is this loud. (INCREASE LEVELS)

But it is more like this. (LOWER LEVELS AGAIN)

The view is beautiful — in fact, it is spectacular.
So the sound level seems more like this. (LOWER LEVELS FURTHER)
It doesn't seem that loud.

But I'm trying to listen to those tiny sounds in more detail now. Suddenly the background sound of the city seems louder again. (INCREASE LEVELS) It interferes with my listening. It occupies all acoustic space and I can't hear the barnacles in all their tininess. It seems too much effort to filter the city out.

[There is a major shift here, starting at 3:00, as the field recording is slowly faded out and the studio-manipulated sounds fade in].

Luckily we have bandpass filters and equalizers. We can just go into the studio and get rid of the city, pretend it's not there. Pretend we are somewhere far away.

[This commentary is accompanied by the taped sounds gradually increasing in volume.

The barnacle sounds have been filtered to emphasize their sparkling, crackling qualities.

The sounds continue, solo, until about 3:30].

These are the tiny, the intimate voices of nature, of bodies, of dreams, of the imagination.
(ssss)

[3:57] You are still hearing the barnacle sounds, and already they're changing.

[The barnacle sounds are becoming more delineated and seem more clearly pitched]

[4:07] Alfred Tomatis says that high frequencies charge our brain and give us energy.

[The sounds have changed again, having a more regular pulse, and sounding more like insect sounds]

[4:16] I often hear these tiny sounds in my dreams. Those are the healing dreams.

[The insect-like sounds cross-fade with sounds of gurgling in the flat part of a creek]

(Creek)

[4: 37] In one dream women living in an ancient mountain village were weaving the most beautiful silken fabric. It sounded like a million tiny voices whispering, swishing, clicking, sizzling.

[Insect and creek sounds together. Two distinct timbres in dialogue]

(Birds, Wende's sound [synthesized whirr])¹⁰⁸

[5:21] In another dream, when I entered a stone cottage, I entered a soundscape made by four generations of a peasant family sitting around a large wooden table eating and talking: smacking and clicking and sucking and spitting and telling and biting and singing and laughing and weeping and kissing and gurgling and whispering [5:45].

[new timbre added, a sharper, more percussive scraping sound, panned to move quickly.

Tape only to 6:35]

(Clicking, Piano strings)

[tinkling sound 6:33]

In another dream I heard bullets tinkling, bouncing like tiny marbles.

[6:42. New timbre: rhythmic clicking]

A man was pursuing me with a gun. I was frightened. But the bullets tinkled. Metallic, tiny seductive semen tinkling all around me.

[Rhythmic clicking becomes louder, dominating attention]

Like in Xenakis's *Concret PhII*, made from the sounds of the discharge of smoldering charcoal. Tinkling all over the Brussels Pavilion, "like needles darting from everywhere," as Xenakis says. You can hear excerpts of that piece right now. [7:17]

[7:41] (Shortly after Xenakis starts, piano arpeggios)

[Arpeggios are in the same high frequency range as the other sounds]¹⁰⁹

¹⁰⁸ Composer Wende Bartley contributed a sound for Westerkamp to use in this piece, a high-frequency synthesized whirring.

¹⁰⁹ Westerkamp describes the source of these arpeggios: "I had played around with tape speed and sped up some of the higher pitched piano string sounds (from an old broken, out-of-tune piano in an abandoned

In another dream, sitting in the car with a woman friend, I heard sounds of glass blinking and tinkling, sparkling. On the car radio they announced that it was Mozart — the way Tomatis wants us to hear Mozart. Tinkling and sparkling. [8:00]

[8:04. Introduction of Mozart in the background, filtered to emphasize high frequencies, from a Tomatis listening tape.]¹¹⁰

(Between Mozart)

[8:17] These were the healing dreams. Energizing.

[8:21. Mozart is a bit louder]

(Neon)¹¹¹

[8:47] As soon as I make space to hear sounds like this, or to dream them

[8:52. The sound of the city blows back in, gusting through the other sounds on tape to dominate the acoustic space]

then I feel the strength to face the city again or even to be playful with it.

[9:00. The city sound gusts more strongly, as Westerkamp's voice becomes more assertive in tone and increases in amplitude].

Play with the monster.
Then I can face the monster.

At the end, the city sound becomes louder and louder, with its noisy quality emphasized, as the other sounds are faded out, 9:42.

house on Slocan Lake in the Kootenays). A lot of the tape mix and the way the words fit with the mix was total coincidence (the most obvious example being the clicking sounds near the bullets section in the text)."

¹¹⁰ Westerkamp says "I took [this sound] randomly from a cassette tape that a boy (a friend of Sonja's) was listening to. This boy had been in the Tomatis program in the Listening Centre in Toronto and when he moved to Vancouver, he continued to listen to these tapes."

¹¹¹ Westerkamp: "It is a neon sign above a shop with arrows and the light pulses from left to right (to the entrance of the shop) through the arrows."

In summary, the piece is in nine main sections which are characterized by changes in sound timbres as well as changes in text.

1. 0:00 to 1:42, soundwalk on Kits Beach
2. 1:42 to 3:00 play with levels
3. 3:00 to 4:16 transitional sequence: barnacle sound to dreams
4. 4:16 to 5:21 first dream: female generations; creek and insects
5. 5:21 to 6:35 second dream: stone cottage; birds and Wende's sound
6. 6:35 to 7:41 third dream; male pursuer; Xenakis
7. 7:41 to 8:17, fourth dream: Mozart car radio; Mozart
8. 8:17 to 8:52 transitional sequence: Mozart and neon to city
9. 8:52 to 9:42 city play

The tape part in the first section is characterized by a relatively unaltered recording which sounds as though it could have come from a soundwalk. Waves and bird sounds are heard, as well as the hum of the city. In the second section, the tape part continues as an unedited soundwalk recording as Westerkamp alters the sound levels, bringing attention to the constructedness of this soundwalk recording, focusing attention on the relationship between self and environment by changing the amplitude balance between voice and tape parts. In section three, she uses the sound of the barnacles to lead the listener into the world of high frequencies, as the city sound is filtered out and the intricacies of the barnacle sounds are revealed. She talks about the importance of high frequencies in healing and energizing. The first dream begins as other high frequency sounds are introduced: rivulets in a creek and insect sounds. These are differentiated on the basis of timbre and rhythm, since their pitch range is similar to the barnacle sounds. Each succeeding dream can then be associated with sounds of different timbres and rhythms: the second dream is juxtaposed with bird sounds and a sound given to Westerkamp by Wende Bartley. The third dream is associated with Xenakis's *Concret Ph II*. The fourth is juxtaposed with Mozart. Westerkamp says that she did not consciously associate certain

sounds with the text, but that many of these juxtapositions are due to coincidence rather than intent.

After the final dream, there is another transitional sequence from dream state back to reality, as the sounds of Mozart are layered with the buzzing of neon bulbs. A low frequency mix appears at the end, invoking the idea of city as monster, as Westerkamp relates:

It is an exaggerated low frequency mix, parts of which I had developed for a play years before to create the sense of a monster, gaping mouth, dragon, etc. It had the rattle snake sound as part of it and I think I may have added some of the Kits Beach ambience. (Westerkamp, email correspondence, April 1999)

This is the most dramatic use of sound design that I am aware of in Westerkamp's work. She uses a technique that is used frequently in film sound design work: the juxtaposition of an animal sound (in this case, the rattlesnake sound) with a mechanical sound (the city traffic) in order to give the mechanical sound more of a sense of wildness and danger. Ironically, then, the city becomes more monstrous through its association with an icon of American wilderness, the rattlesnake. Although Westerkamp earlier set up an opposition between the quiet and intimate voices of nature against the dominating sounds of the city, she dramatizes this opposition through the use of a voice from nature that is frightening when heard up close.

Listener Responses

Because this piece is so clearly associated with Westerkamp's *Soundwalking* show on Vancouver Cooperative Radio, I wanted to be sure that I played it for some Vancouver residents to get their responses, as well as playing it for a number of other audiences. Accordingly, I set up a listening session at the Western Front, a well-known Vancouver performance space, with the help of composer Jean Routhier, in April of 1998. We advertised widely, in a local music newsletter, announcing it at a concert earlier in the week, and at the Front itself. We hoped to attract a wide range of Vancouver residents.

Unfortunately, only four people attended. As well as playing *Kits Beach Soundwalk*, I also played two other pieces that could clearly be associated with the Vancouver area: *A Walk Through the City*, and *Talking Rain*. These four responses are quite detailed, and engage clearly with the issue of sounds related to the Vancouver area. I only wish that more had been available. As well, I played this piece for a group of radio artists in Peterborough, which was interesting because their perspective was as experts in the field of community radio. I also played it for a number of undergraduate music classes.

Commentary on the piece focused to a large extent on the role of the speaking voice, which is more prominent in this piece than in others. There was also some commentary on musical structure, imagery, places, and spatial movement.

Musical Structure

Some listeners responded to the piece as radio art. Anomaly@zipcon.net (26m, contact by email)¹¹² says "I find "Kits Beach Soundwalk" one of the few pieces of radio art to hold my interest and really take me in." Amelia (45f, Queen's gender and music class) says that the piece "reminds me of Glenn Gould's 'Idea of North' radio shows."

Other listeners question whether this piece can be considered music, suggesting instead that it is a form of documentary. "I don't know why it is considered a musical composition rather than an oral documentary" (Newton, 22f, Queen's gender and music class). Another listener comments "More of a soundscape story than a composition. Music used to supplement the narration, rather than vice versa" (Fredd, 23m, Queen's electroacoustic music). Both of these comments focus on the interaction between the spoken narrative and the other sounds in the piece.

¹¹² Throughout the discussions of Westerkamp's pieces, I use the following to identify listener responses: Pseudonym as given by respondent (age followed by m for male or f for female, location of response)

Two other listeners did not question the musicality of the piece, but remarked on the balance between vocal narrative and other sounds in different ways. Melody (20f, Queen's electroacoustic composition) comments that the narrative is quite educational and says "programmatic because of this." DqM (22, Waterloo composition class) says "Funny how Mozart is secondary."

In radio art, the question of whether something is a composition does not arise in the same way as it does in music. Composition is considered the practice of putting sounds¹¹³ together in some way, and as I noted earlier in the chapter on epistemology, some radio artists consider radio art to be defined as concerned with meaning, privileging narrative. Within music, the working definition of composition as understood by students is that of abstract construction with sound. Compositions are not supposed to be expository narratives, or documentary. Narration should only supplement other sounds, and should not be prominent, should not challenge the supremacy of abstract construction with sound, the primacy of absolute music.

As I mentioned earlier in the chapter on epistemology, radio art such as Glenn Gould's "Idea of North" defies the restrictive polarity of meaning in radio art and abstract play in music by doing both simultaneously. This work is at times meaningful, and at times constructs fugal edifices in which meaning is harder to locate, and the listener becomes drawn into perception of other aspects of the sound, while at the same time hearing poetic fragments of meaning.

¹¹³ Or words, in creative writing; or images in visual art.

Kits Beach Soundwalk is not constructed with layers of simultaneous conversations, as Gould's work is. There is only one voice, Westerkamp's. The longest time that we hear the taped sounds without any words is about fifty seconds (from 5:45 to 6:35), with several other segments around twenty to thirty seconds each. But this does not mean that the piece is a straightforward documentary. The vocal part is poetic, leading the listener into imaginary dream worlds linked to different sparkling sounds, what Augusta (46f, Queen's electroacoustic music) calls "ecological poetry."

Kits Beach Soundwalk is hard to place as music or radio art to people unfamiliar with the genre of soundscape composition. Even within this genre, recorded soundwalks are rare: I am not aware of any being publicly available before Westerkamp began her radio show in 1978. Even since then, most soundscape compositions do not reveal the presence of the recordist as clearly as Westerkamp's work, nor the relationship to a very specific place. A newspaper review of *Kits Beach Soundwalk* links the piece to *musique concrète*. Stephen Pedersen says:

Westerkamp works in the field of "musique concrete" promoted, if not invented, by Edgard Varese in the fifties. It was virtually abandoned by composers with the advent of synthesizers in the early sixties ("Sound Artworks Clear and Simple" *Halifax Chronicle-Herald*, October 28, 1991).

His review indicates how little this music critic knows about *musique concrète*, not to mention soundwalk recording. In this summary, he does not mention the composer who invented the term, Pierre Schaeffer, or anyone who has worked in *musique concrète* since the early sixties. The genre sounds like an anachronism, as it tends to do in electroacoustic music textbooks as well (see Chapter 2). It is not surprising then, that Pedersen also does not delineate how soundscape composition is related to *musique*

concrète in its use of recorded sounds, or how it might be different in its exploration of sounds in their environmental context as well as, rather than only as sound objects.

Westerkamp describes how her soundwalking pieces work as radio art:

It is still relatively unusual to hear environmental sounds or soundscapes on the radio. This type of radiomaking presents the familiar as though artificial, through a loudspeaker, second hand, framed in space and time, and therefore highlighted. Daily life is thus presented from a new acoustic angle. Such radio can assist us in listening to our everyday lives, to who we are as individuals and as a society.

In some soundwalks I speak "live" from the location of the recording directly to the listener. My voice forms the link to the listener who is not physically present. I speak about the sounds or soundscapes that are audible but also about aspects extraneous to the recording such as the weather, time of day or night, the feel of the place, the architecture, how the environment looks. The voice transmits information about a place that would otherwise not be apparent from raw environmental recordings and assists in transporting the listener into each specific soundscape that is broadcast. It is also a constant reminder of the recordist's presence in the environment and of the fact that this presence creates a specific acoustic perspective for the listener — that this particular microphone, this particular recording presents only one truth about the environment. By doing so, it is intended to create an awareness or curiosity in each individual listener of a unique acoustic perspective. (Westerkamp, 1994: 90)

Kits Beach Soundwalk emerged out of Westerkamp's work as a radio artist, and has since been presented as a performance tape-vocal piece in concerts, and as a pre-recorded work on CD. Westerkamp uses her voice as a link to listeners, leading them from the beach soundscape into her dream world. She comments on the sounds to focus attention on their social meanings.

... [environmental sound] also has a social meaning ... That's really what keeps me in this area. The connection between the musicality of a sound and the social meaning of a sound. (Westerkamp, quoted in Young, 1984).

For Westerkamp, the connection between social meaning and musical meaning is important. This is one of the reasons that she likes to work with recognizable environmental sounds, that retain their original reference points. Westerkamp explores the musicality of sounds, pushing at the boundaries of what many will accept as music, inhabiting a marginal space in terms of style—like a barnacle inhabiting the joining of two elements, or as Minfe expresses it, perhaps acting as a translator between the listener and the soundscape: "her spoken voice takes you for the soundwalk personalising and focusing it on you with her and nature. A beautiful idea!" (51f, participation by letter)

Voice Characteristics and Narration

Eight listeners said that they found the voice peaceful or soothing, while six listeners described it as annoying or disruptive. P-Ron (22m, Queen's electroacoustic music) says "Very soothing. I would love to listen to this before sleeping." Cherry (22f, Waterloo composition class) comments "sound of narrator and birds soothing." Misanthrop (25m, University of Toronto grad colloquium) describes the piece as "Deana Troy's soliloquy on sound," a reference to the ship's counsellor on *Star Trek: The Next Generation* who is known for her empathic abilities and her adeptness at calming people, a comment that is somewhat tongue-in-cheek, as befits this respondent's chosen pseudonym.

Wim (20m, Queen's electroacoustic music) says "the soothing voice seems to take hold of your focus." Genesis (23f, individual listener, participation by letter) says: "I listen to her dialog and I react against it. I cannot be her, I cannot hear what she is hearing." These two quotes, resulting in quite different emotional reactions in the listeners, in which one reacts against the voice while the other continues to find it soothing, point to the most persistent critique made about this piece: that the vocal narrative takes hold of one's focus, seeming to restrict people's abilities to go on their own journey during this work. Many people feel restrained to following Westerkamp's path. At the same time, the listener who says "I cannot be her" earlier comments "I've never been to Vancouver! — Where's Terry David Mulligan?" Terry David Mulligan is a Much Music video jockey, and host of the *Much West* show, which is highly constructed and directed with little left to the imagination. In her question about where Mulligan is, this listener expresses a desire for a guide who leaves much less room for creative response than does Westerkamp in this piece. Perhaps this listener does not feel the same pressure to be Mulligan, but why? Is it because audio is "hot" and involving against television's "coolness," as Marshall McLuhan would say? Is it because she felt more familiarity with

the popular music focus of Mulligan's commentary? Is it because Westerkamp is a woman, and this listener felt more desire to identify, but could not? She does not say.

30 something (43f, Trent radio art day) articulates the frustration mentioned by several listeners, commenting "The voice is actually the dominant sound-thread. We have to filter it out in order to pay attention to the sound imagery she has set up." What is different in this listener's reaction is that she is able to filter the voice out, while others are not. Rick (22m, Trent Radio Art Day) says:

When I started listening to this piece, I created a mental image of what I was listening to. She didn't let me do this however, she created her own view of the sound, with everything she says the picture becomes more clear. We are her followers, and she leads us by the hand through different worlds.

Peter Hau (35m, Trent Radio Art day) perceives the voice differently depending on what sounds it is juxtaposed with: "Role of narrative, and constant set against Lows and Highs of environmental soundscape, is perceived differently; gratefully accepted in shaping (bad) city sounds, but a nuisance when interfering with "good" sounds." Another listener at the Trent Radio Art day says that s/he only listened to the voice as long as the imagery matched her own: "useful initially then I disregarded it when her imagery did not match mine" (29, Trent Radio Art day, no other information about identity). It is interesting that the only two listeners of all the respondents who mention filtering out or disregarding the narration are radio artists. Also, the sense of the narration being too explicit or too dominant is much stronger in this group than elsewhere. In other sessions, only a few listeners reacted strongly against the narration, whereas in this group almost everyone did. Perhaps this is because of radio artists' desire to create their own narratives, or because of their increased listening sophistication, because of which Westerkamp's commentary seemed unnecessary or even invasive.

In every listening session, the group would laugh at the point where Westerkamp announces "Luckily we have bandpass filters and equalizers. We can just go into the studio and get rid of the city." This humorous demystification of the studio process is one of the elements that makes this piece different from a documentary: it shows its own process so clearly, rather than creating the smooth and distant glossing of an objective stance. Jon (23m, Queen's electroacoustic composition) points out this subjectivity when he says "sense of humour, manipulation of sound levels relate to personal experience." Westerkamp is self-reflexive—as well as reporting on what she sees to supplement the listener's hearing, she also talks about her perception of sound related to what she sees and imagines. One listener had an angry reaction to this self-reflexivity:

The voice is lying. Sound is not natural. She is creating this world far from water and city. When she says that the view is spectacular/beautiful she is looking at a material possession in her studio. I cannot separate her narrative from the fact that she is creating the piece. Personally, I prefer not to hear the human voice. I receive no visual image in my mind's eye. She says so by referring to the studio instruments. This piece elicits anger, nervousness, and a desire to be somewhere else. (Mario Welsh, 22m, Queen's electroacoustic composition. This is the same listener who imagined an alien kidnapping in response to *Cricket Voice*.)

This listener seems to want a complete separation between natural and technological worlds. He hears Westerkamp's reference to studio instruments as a vindication of his anger at her supposed duplicity. Yet she is being very clear about what she is doing, playing with the boundaries between natural and constructed sound. She explains this approach in a recent talk:

Environmental sound is a type of language, a text. As well, the technology through which we transmit the sounds, has its own language, its own process. If we truly want to reveal meanings through recorded environmental sound and truly draw the listener inside these meanings, then we must transmit precise information and knowledge and demystify technologically hidden processes. When we have done something as simple as condensing the duration of a dawn chorus in order to fit it into a predetermined time frame on a CD, let's say that and how we have done it. Let's name the voices of the place, let's mention the weather for example or the season, the landscape, the social and natural context. (Westerkamp 1998: 8)

Westerkamp is refusing the role of the technical wizard, who magically whisks the listener off to an imaginary world. When she leads us into the studio, she tells us exactly

what she is doing and why. To radio artists and composers, who do this all the time, perhaps this is unnecessary, whereas to less experienced listeners it may open doors.

Several respondents point to the pedagogical importance of the piece. Eurom (22m, Queen's electroacoustic composition) says "almost an introduction to electroacoustics!" BJ (22f, Queen's University gender and music) says "Tells a story of what everyday life is like. Everyone's too busy to stop and take a moment to appreciate the beautiful sounds of nature." Augusta also mentions this sense of timelessness, of an ability to stop and pay attention to the small sounds: "also gives a sense of timelessness, re, living for the moment, a sense of total immersion into the soundscape and environment" (46, Queen's electroacoustic composition). Malaclypse the Younger connects his acceptance of the narration with his strong agreement with the message that he heard in it:

At first, I didn't like the voice-over. After a point started to emerge, I liked the message and so the narration was ok. The rumbling city in the background - very spooky and effective. Very important message. Have you ever wondered if there are primal panic reflexes which are constantly being triggered by urban life, without our consciously realizing it? I have. (21m, Waterloo composition)

The piece makes Jemma realize that we hear everyday sounds transformed in our dreams. Even though at first she describes the narration as too obvious, it articulates relationships to sound that she had not thought about. The relationships between words and sounds in the piece alter her perceptions of the sounds:

Some of what's said almost seems too obvious, but yet we wouldn't know how to put it into words. Uses words to change our perceptions of sounds, i.e. barnacle sounds to sizzling to sounds of a family. Interesting: presence of every-day sounds in our dreams! We incorporate our sound environment into our lives. (23f, Waterloo composition)

This piece, emerging from Westerkamp's *Soundwalking* show and her experience with the World Soundscape Project, has a more clearly articulated verbal message than others,

related to acoustic ecology. She wants to make people more aware of the sounds around them, then to lead people into the healing barnacle sounds, away from the constant distracting hum of the city, so that they can return refreshed as she does. Certainly with these listeners she has succeeded. They are thinking more about living in the moment, the presence of everyday sounds in their dreams, and the panic reflexes that may be brought on by traffic sounds.

Some listeners responded with ambivalence to the message. Cora (25f, Queen's University gender and music) says:

“the View is beautiful” No it’s not. This is the environment which I don’t know. I don’t know this space. It’s a foreign space. I belong in the city. I have the city. But I don’t have this environment. I dream nature. I often dream waves. Yet still it’s external to me. Yet it’s internal to me. My healing dreams include waves very often. A bird of ... black flying just above waves but without sound which is because it’s too powerful, and makes my ears shut. This sound in my dream always exists in me, yet is foreign to me. I live in a building where I don’t see fish, birds, waves. These exist in my dream. Inside of me. I don’t like this sound externalized.

Cora is clearly agitated by the piece, remembering her dreams yet not wanting to hear the sound of her dreams externalized (not even to herself, since her ears shut). She insists that she belongs in the city and the space is foreign to her while also internal to her—perhaps because Kits Beach is simultaneously city and waves, reality and dream, external and internal. She wants to keep her dreams secret, separate from her waking world, whereas Westerkamp is bringing the two together.

High-Frequency Sounds in the Dream Sequence

Several listeners had strong reactions to the high-frequency sounds. Two listeners described the sounds in the Mozart section as like glass prisms. Earlier in the piece, reactions to the high frequencies were more mundane or domestic. Cooil (30m, Queen's

electroacoustic composition) says "the barnacle sounds reminded me more of frying eggs giving more intense hot day feel." Four listeners in total referred to this sound as like frying eggs. Smitty the Rickety Old Man says "sounds like she's cookin' up some eggs," (19m, Queen's electroacoustic composition) situating Westerkamp in the kitchen.

One listener said that she normally finds high-frequency sounds irritating rather than healing, but they did not irritate her during this piece. Another had a stronger reaction: "ultra-high frequencies make me cringe; make my head spin" (Genesis, 23f, contact by mail). However, most listeners liked the high frequency sounds, describing them as delicate, stimulating, sparkling or magical. Stephen Pedersen says "there was a magic in those sounds. It came from our sense of mingled delight and astonishment that such delicacy goes on under our very, very sophisticated noses, and that there is something in them of an unthinkable ancient past, as if a time machine had suddenly deposited us in the middle of the paleozoic."

Some listeners linked the barnacles sounds with intimacy: "can hear intimate sounds of barnacles [feel like part of something special]" (Cherry, 22f, Waterloo composition class). Tricam (33m, University of Toronto graduate seminar) associates the entire dream section with intimacy: "when she cuts the city sounds the impression changes from grandeur to intimacy." Cooil (30m Queen's electroacoustic composition) associates Westerkamp's voice with an intimacy that is almost invasive: "the talking made me feel that I was spying on her or reading her diary." This comment indicates a degree of discomfort with intimacy, perceived as an invasion of privacy. This issue also arises with Westerkamp's *Moments of Laughter*, which is the subject of Chapter Eight.

Interestingly, there were very few comments on the content of Westerkamp's dream narration. Jon (22m, Waterloo composition) says "comparing bullets to semen.

Discharging, other sexual imagery" but this is the only comment on the remarkable sequence where Westerkamp describes a scene where a man pursues her with a gun, then links this directly to the work of Xenakis, saying that the bullets in the dream are like "tiny seductive semen," and also like the sounds of discharging charcoal in Xenakis's *Concret Ph II*.

Is Westerkamp's dream making a connection between the sublimation of male aggression (bullets that tinkle rather than blasting, transformed from forces of destruction to tiny seductive semen) and the type of electroacoustic music made by Xenakis? She tells me that she does not know exactly why this piece by Xenakis fascinates her so much, but that when she listens to it, she feels similar pulls of attraction and repulsion that she felt in that dream.

Places

The places mentioned by listeners to this piece were of a narrower range than with Westerkamp's other works. Once again, because of the narration, listeners seemed more likely to choose a place that was closely related to the place that Westerkamp was describing. There is one exception to this: at the beginning of the dream sequence, one listener hears the sound environment as "like a tropical rain forest" (Ella, 22f, Waterloo composition). Several people referred to being on a beach, or by the sea, without saying where. Portia (21f, Queen's electroacoustic composition) says "sitting at a boardwalk." Amelia (45f, Queen's gender and music class) writes "I can smell the Pacific ocean."

Only one listener describes a beach that is clearly far from the West Coast:

Somerville by where Greenwood Racetrack used to be you can hear the traffic below and the water, on deck at the pool with eyes shut.
-doesn't sound like there anymore. Once you use equalizers.
-I don't enjoy voice over sounds.

-tiny sounds. -manufactured not real to me.
-piece lost meaning to me . Now I only see composer's meanings from her narration. (Kitty, 23f, Queen's gender and music)

This listener is describing a place from memory, and her connection to that memory does not seem to be able to withstand the power of the vocal narrative.

Those who were familiar with Kitsilano compare the initial part with their memories of that place. Smitty the Rickety Old Man is concerned with verisimilitude when he says "sounds pretty accurate for Kitsilano" (19m, Queen's electroacoustic composition).

Malaclypse the Younger (21m, Waterloo composition) says:

I've walked along Kits Beach early in the morning before - I never would've thought of listening to nature in that place. It looked like a suburb and felt like a golf course. Maybe it was the surreality of dawn which added to this.

The beach has even more meaning for residents of Vancouver, as Barry Truax¹¹⁴ notes:

Kitsilano Beach is right in the heart of Vancouver, across from the West end, on English Bay, so this piece is precisely located in the local listener's mind. Its image is not that of the wild coastal areas, but the domestic familiarity of a popular local beach.

He describes the beach location precisely, close to the urban centre. For Vancouver residents, each local beach has a particular flavour or ambience, which connects the place to memories and events over years of experience, giving deeper meaning to the sound environment than would be heard by someone who had only visited once or twice.

By explicitly linking this piece in the CD liner notes with her *Soundwalking* show, Westerkamp associates it with the aims of that radio work:

¹¹⁴ Truax attended one of my listening sessions, and agreed to be identified. I decided that because of his expertise in this area, it would be best to use his real name.

Soundwalking took Co-op Radio listeners into the soundscape of Vancouver and surroundings.... It was my first attempt to create a program that listened to the communities of Greater Vancouver without attempting to report about them. It brought community soundscapes into listeners' homes and simultaneously extended listeners' ears into the soundscape of the community. (Westerkamp 1994: 89-90)

Westerkamp describes *Kits Beach Soundwalk* as a compositional extension of this original idea. Rather than remaining with the original place, the work extends it into the world of the studio, and the world of dreams, as well as the worlds of the concert hall in performance and that of the CD. In its most fixed form, on the CD, it still speaks to listeners about acoustic ecology, and relationships between dream and reality, studio and field recording, subjectivity and sound environment. But at the same time, in some cases listeners were blocked in their appreciation of this piece by an inability to identify with the vocal narration, or an experience of it as disruptive. Is this because of listener expectations about what constitutes a concert piece, what will appear on CD? Is it because many people value music as an abstract form where they can discover their own imagery, and reject guided imagery? Is it because they are hearing a female voice that some female listeners feel a need to identify, and because it is in such a crystallized form that they are unable to? In order to answer these questions, it would be necessary to analyze a larger set of pieces that use vocal narration of this type, and these are few and far between. By choosing to put such a piece on a CD, Westerkamp raises these important and difficult issues.

The "Wet" Coast:¹¹⁵ Related Work

Perhaps it is still to the original audience of the *Soundwalking* show, the Vancouver audience, that this work speaks most directly. David Kolber, a Simon Fraser Acoustic

¹¹⁵ Many people who live in British Columbia refer to it as the "Wet" coast rather than the West coast, especially after a rainy spring.

Communication student working with composer Barry Truax, writes the following as an introduction to a paper about *Kits Beach Soundwalk*:

Looking out at the arteries of bridges and roads, with the honking of car horns and the screeching of tires, and in the foreground the humming swirl of a building's ventilation intake pipe, I want to run away. Even in our world of standby airline tickets and sensory deprivation tanks, how can one possibly hope to escape this moment-by-moment barrage of buzzers and sirens, of traffic belches and whining machinery, of lights and appliances humming a single, unending, unchanging, note. I find hope and insight in Hildegard Westerkamp's "Kits Beach Soundwalk." Through the piece, Westerkamp challenges the listeners to re-evaluate and to re-establish their place within the world around them. (Kolber 1997: 1)

Kolber's consciousness of the sound environment, revealed in his description of it, is a reminder of how Vancouver residents have been exposed to acoustic ecology as a discipline, to a far greater extent than in most other places. Since the 1970s, when the World Soundscape Project was established there, Truax, Westerkamp and others have worked to increase listeners' awareness of the sound environment. The *Soundwalking* show introduced listeners to the sound of recorded soundwalks, broadcast on radio. Westerkamp's performances have introduced many Vancouverites to performed soundwalks, and sound journals. Works released on CD like *A Walk Through the City* and *Talking Rain* also refer to Vancouver's sound environment, extending to a larger and more geographically removed audience.

In the listening session at the Western Front, I played these two pieces, as well as *Kits Beach Soundwalk*, as examples of works that refer to the Vancouver environment. I was particularly interested in discovering to what extent Vancouver listeners' responses might differ from others elsewhere.

A Walk Through the City was composed in 1981. Westerkamp describes it as:

an urban environmental composition based on Norbert Ruebsaat's poem of the same name. It takes the listener into a specific urban location—Vancouver's Skid Row area—with its sounds and languages....A continuous flux is created between the real and imaginary soundscapes, between recognizable and transformed places, between reality and composition.

The poem ... is spoken by the author and appears throughout the piece, symbolizing the human presence in the urban soundscape. Its voice interacts with, comments on, dramatizes, struggles with the sounds and other voices it encounters in the piece. (*Transformations* liner notes: 21)

Barry Truax indicates that although Ruebsaat intended the poem to refer to any city, the sound recordings locate it exactly in Vancouver:

Even though the 'city' in Norbert's poem is non-specific, it's inevitable for me to associate it with Vancouver, right from the start with the long seaplane crescendo and its characteristic phasing effect as the sound reflects off the mountains and the water of the inner harbour—a very Vancouver sound. The voices ... from the East end near the middle and at the end are also very specific to Vancouver once that context is established.

Truax then continues by describing the drama articulated in Ruebsaat's poem, its symbolic aspects that are not as specific to Vancouver:

The very dramatic poem—articulated in a wide range of styles and recording distances—expresses the conflict in the city between its glittering opulence and the thinly veiled violence of its darker side. This is symbolized by the extremes of the frequency ranges used: the throbbing motors, pulsating beat rhythms, the droning ambiences and the glittering high frequencies of the bus brakes, sirens and the ethereal voices derived from them. One of the most striking moments—my favourite—is when Norbert whispers the text surrounded by these high and low frequency components: the city both distantly ominous and visceral as it borders our [aural] skin.

Responses by other listeners often mention that the piece is located in Vancouver's Skid Row area, as Westerkamp reveals in the liner notes, but particular sounds are not mentioned in relation to this, and the authors quickly move to a discussion of its significance in relation to their own experience:

A Walk Through The City is a journey through Vancouver's Skid Row area. Unsettling in its content, it is none the less essential listening. A reminder that we have become disassociated from one another and that for those living on the outskirts, ... life is a constant struggle to survive and be. Westerkamp herself does not pass judgment but simply portrays what is happening. Norbert Ruebsaat reads his poem over this soundscape. (Review for *Power Spot*, a Sydney Australia radio program)

This reviewer quickly moves to a discussion of commonality, using the pronoun "we," in a similar way as another reviewer, Clive Robertson:

A Walk Through the City is in part, a social interpretation of Vancouver as it exists. We hear urban sound: traffic, carhorns, brake squeals, pinball machines, people's voices. We hear street alcoholics apologizing before the microphone; we hear drunken songs. In programme notes for the piece, Westerkamp writes of "perceptual shifts between acoustic reality and our own acoustic imagination." ...The voice in comparison with the voices on the street is theatrical when it screams: "Somewhere a man is carving himself to death, for food." (1982: 349)

Robertson compares the voices on the street with the theatricality of the poem reading, continuing later in the article by asking: "if an urban environment already includes peoples' voices and conversation is there any clarity in further loading the bases with 'external human components'?" (1982: 349). His sentiments are echoed by a Vancouver resident in the Western Front listening session, but in the latter case, this listener's comparison is more strongly expressed because of his experience as a resident:

poetry and psychologized form of music/soundscape
doesn't need stylized and psychological poetry
this is alienating - doesn't feel like our city
recordings of citizens is much richer than narrator - let them tell their own
story
beautiful music coming from airplanes - something we've all heard
musically in life
she achieves mystery and sensuality in the commonplace
(Jo Sharpe, 22m, Western Front)

Note that this listener refers to the "beautiful music coming from airplanes," the seaplanes that Truax identifies as indicators of Vancouver's location. When Jo finds the poetry alienating, he dissociates it from his experience of "our city." In his description of *Kits Beach Soundwalk*, Jo says that Westerkamp presents "sound as more than phenomena, as the listener's own," through her association of certain sounds with the intimacy of dreams. His comments about *A Walk Through the City* reveal that alienation and dissociation occur when sounds no longer accord with the listener's own experience.

While Western listeners refer to urban sounds in *A Walk Through the City* as similar to their own experiences in urban centres, a listener from India points out the differences between Canadian and Indian soundscapes:

A Walk Through the City—combinations of sounds. A feeling of large spaces and loneliness dwells in all these compositions [she also mentions *Fantasie for Horns* and *Beneath the Forest Floor*] as compared to her Indian soundscapes—with so much more happening in a given time and space with natural acoustical sounds as compared with the high frequency mechanical sounds in the West. (Minfe, 51f, contact by letter)

Listeners' responses are shaped by their previous experiences and the soundscape that they know. While Vancouver residents may hear specific sounds that locate the recording exactly in their neighbourhood (particularly if they are listening as carefully as Truax), Western listeners hear sounds as universally urban, and a listener from India hears what she hears as characterizing Western urbanity (high frequency mechanical sounds) in contrast to the soundscape of urban India (in which she hears more density of acoustic sounds and a busy human environment that is not lonely).

Talking Rain (1997) is a more recent composition based on sounds recorded in Vancouver and other parts of B.C. Once again, the comments recorded by Truax reveal its significance to local listeners:

Talking Rain invokes the West coast listener's immediate resonance to the varied sounds of rain in all of their infinite nuances. By manipulating small samples of rain sounds, she is able to draw us into the fine rhythmic and textural detail of an otherwise all too familiar sound. The accompanying forest birds ... foghorn and the frogs also conjure of the natural coastal soundscape - contrasted in the later section with the urban soundscape and its rain-washed streets whose acoustic ecology is more questionable and whose textures are more broad-band. Rainforest and urban jungle in high contrast! Unlike the ominous character of the city in the earlier piece [*A Walk...*] or the more distant background of *Kits Beach*, this city soundscape is more 'ordinary' and less threatening [we even get churchbells!] and rather readily dissolves back into a wave wash that connects us again (note the final footsteps)—as Vancouverites always feel they are—to the natural environment. An interesting contrast to *Gently Penetrating* where the personal respite from the inescapable chaos of the city [in India] is symbolized by the simultaneous metallic percussion sounds with their spiritual connotations of inner peace.

Truax raises a number of important issues in this response. He points out the familiarity to West-coasters of not only the rain (hence my earlier pun about the "Wet" coast, a description I heard often in Vancouver), but also the presence of a foghorn as well as West coast forest birds. His comments about the progression from the urban sounds as ominous, to distant, and finally ordinary are also interesting to Westerkamp, who was not aware of this progression in her work over the period 1981 to 1997, from youthful protest and alienation to more subtle juxtapositions and a sense of acceptance. Finally, Truax contrasts this piece with *Gently Penetrating*, based on an Indian soundscape, in which he hears metallic percussion sounds (perhaps the slowed bicycle bell sounds) as connoting inner peace in a busy urban environment, and contrasts this with the sounds of footsteps in *Talking Rain*, which connotes Vancouverites' connection with the environment. Certainly there is not the same sense of loneliness in *Talking Rain* that Minfe, the Indian

listener, heard in *A Walk Through the City*. The urban sounds that we hear are individual cars passing close by on rain-soaked streets, not the distant roar of traffic or the mournful cry of slowed-down screeching truck brakes.

Jo Sharpe confirms Truax' description of rain as a quintessential Vancouver sound, as well as his description of the city as normal and unthreatening:

I've had a love affair with rain all my life.
It's the voice of the west coast.
Imagery moves from drenching rain, to tiny leak, to bath time [childhood, comfort] to forest, city, lakes, tin roofs, cement, plastic
Glad to hear the city eventually—humanity within the environment and humanity as environment
Circular form connotes a “zooming in” and ‘zooming out’ effect
(22m, Western Front)

This response also underlines earlier commentary by listeners to *Kits Beach Soundwalk*, as well as some of the other pieces that I analyze, in which they hear how Westerkamp invokes a sense of zooming in and out, moving from grandeur to intimacy, drenching rain to tiny leak, bath-time to forest.

Both identity with rain and a sense of zooming in and out are noted as important parts of Westerkamp's work in an online review of *Talking Rain* by Mark Parlett (Smartt.com):

Talking Rain, by Hildegard Westerkamp is clearly working with a force of nature that is our identity here in Lalaland, water ... water and our proximity to it, is in our bones in Vancouver ... Like looking at many photographs of the same shot with each shot having a different depth of field, Westerkamp deftly crafts together water in all its manifestations into these intimate sonic polaroids that flow in and out of each other.

Parlett also notes the importance of Westerkamp's limited manipulation of sounds to his appreciation of the work:

Westerkamp stays out of the way in terms of the manipulation of the sounds. If there was any processing or treatments to the tape they were imperceptible and all but invisible. I had one of those sublime moments where upon deeper examination I realized that the composer may have done a little processing on some very tiny fast dripping droplets of water, and then I realized that I have encountered a sound like that in my life, a processed computer like sound, sitting beside a small creek in the spring when it's beginning to thaw and small drops of water are dripping under the ice downwards and it's almost metallic, and then I realized it doesn't matter either way.... Hildegard Westerkamp's work at its best brings us closer to the notion that we are the sounds that we hear...the "just listening" state...the dissolution of the "me listening to that " construct, this is the essence of *Talking Rain*.

Parlett mentions a sense of identity with sound. This is somewhat like Jo Sharpe's earlier comment that Westerkamp works with sound as not just phenomena, but as the listener's own, focusing on the relationship between sounds heard and the subjectivities who hear them. Unlike Jo, Parlett experiences this not as a sense of ownership of sound, but as a dissolution of boundaries between self and soundscape.

Westerkamp herself thinks of her work as being at once inside and outside of the soundscape, both recognizing that boundaries between self and subjectivity exist, and attempting to create the kind of immersive listening that temporarily dissolves those boundaries. She amplifies and focuses listening using a microphone.

The microphone is a seductive tool: it can offer a fresh ear to both recordist and listener; it can be an access to a foreign place as well as an ear-opener to the all-too-familiar, or a way to capture and speak back to the unbearable. (Westerkamp 1998: 6)

The sense of immersion offered by the microphone is contradictory, bringing the recordist further inside the soundscape while it also keeps her outside.

... the whole experience feels to the recordist as if he or she is more intensely inside the soundscape, because the sound is closer to the ear and usually amplified. But in fact, the recordist is separated from the original direct aural contact with the soundscape, especially from the spatial realities of closeness and distance, from the ability to localize sound correctly.

In that contradiction, however, lies the seduction of the microphone: it feels like access, like closer contact, but it is in fact a separation, a schizophrenic situation. Soundscape recordists exist in their own sound bubble and hear the place in which they are, completely differently from everyone else in the same place. They are like foreigners or outsiders, no matter whether the place is their home or foreign territory. (Westerkamp 1998: 7)

Kits Beach Soundwalk embodies this sense of being inside and outside the soundscape at once. Sounds enter Westerkamp's most intimate dreams from the everyday experience of walking the beach. She listens to the recording, immediately beginning to play with levels, to create an imaginary space far from the city, leading the listener through a world of high frequencies. She is at once inside the beach soundscape and reporting on it, inside the composition and relating how it is made.

Re-learning to hear and decipher the soundscape like a new language; treading carefully with curiosity and openness, aware that as recordists we remain outsiders; always attempting to create a type of naked, open ear; these may be ways to continue for the composer who wants to speak from inside the soundscape and at the same time transmit a genuine ecological consciousness. (Westerkamp 1998: 10)

Chapter Six

Soundwalking as Subjectivity in Environment: *Kits Beach and Queen Elizabeth Park*

In the mid-1970s, two events coincided that have changed the way I think about sound: the World Soundscape Project and the founding of Vancouver Co-operative Radio. (Westerkamp 1994: 87)

As a researcher with the World Soundscape Project, directed at Simon Fraser University by R. Murray Schafer, Westerkamp studied the soundscapes of various places in Europe and Canada in terms of their sociological, aesthetic, philosophical, and scientific significance. Also, through her contact with Schafer and his attitudes towards listening, Westerkamp developed her own approaches to listening to the sound environment, including a practice of soundwalking, individually and in groups (see also Chapter Four, pp. 138-142).

Her involvement with Vancouver Co-operative radio gave Westerkamp a place to actualize some of her ideas about sound ecology, particularly through her *Soundwalking* show. Her intention with the *Soundwalking* show was to take listeners to various locations in their immediate area, the Vancouver region, then to play back the sounds of these environments to listeners, framing and contextualizing them through on-air commentary. Sometimes, as in a program about Lighthouse Park, she would read excerpts of others' writings (in this case, Emily Carr). The shows often had a political point made acoustically — for instance *Silent Night* contrasts the name of the Christmas carol with the reality of acoustically crowded reverberant shopping malls in the weeks before Christmas, juxtaposing cash registers and holy music; *Under the Flightpath* repeats the words of residents saying they don't hear the planes any more, with the roaring of jets overhead.

Soundwalks and Composition

In her 1974 article about soundwalking, Westerkamp says that the functions of a soundwalk are orientation, dialogue and composition. We can use a soundwalk for orientation when in an unknown environment, as a mariner would use sounding to understand unknown waters.

Or go for an orientation walk in the city, any city, asking people for directions. Besides not getting lost that way, you will also get to know a little of the character of a city by listening to the way people answer. Listen to the sounds and melodies in their voices, listen for accents. (Westerkamp 1974: 25)

Dialogue can involve responding to the call of a bird or animal, finding echoes of landscape formations and building structures. Both orientation and dialogue are necessary for soundwalk composition:

Go out and listen. Choose an acoustic environment which in your opinion sets a good base for your environmental compositions. In the same way as the architect acquaints himself with the landscape into which he wants to integrate the shape of a house, so we must get to know the main characteristics of the soundscape into which we want to immerse our own sounds. What kinds of rhythms does it contain, what kinds of pitches, how many continuous sounds, how many and what kinds of discrete sounds, etc. Which sounds can you produce that add to the quality of the environmental music? Create a dialogue and thereby

lift the environmental sounds out of their context into the context of your composition, and in turn make your sounds a natural part of the music around you. Is it possible? (Westerkamp 1974: 25)

To further understand Westerkamp's approach to soundwalks in composition, I first describe a soundwalk that we did together in Queen Elizabeth Park, Vancouver on August 17, 1997. This description indicates some of the issues that arise about listening, improvisation in response to chance events in the environment, and recording techniques that arise during a soundwalk recording. I then analyze *Kits Beach Soundwalk* (1989), a piece which Westerkamp describes as a compositional extension of her approach from the radio shows.¹¹⁶

A Soundwalk in Queen Elizabeth Park

Queen Elizabeth Park, situated close to where Westerkamp lives in Vancouver, is a place that she has visited frequently. It is a landmark of the area, described in tourist brochures as "Vancouver's oasis," containing the city's only tropical garden under the triodetic dome of the Bloedel Conservatory at the highest point of the park (also the highest point in the city), which provides a beautiful view of the urban area and surrounding mountains.

Queen Elizabeth Park is visually extremely attractive. It is a post-card park which captures the eye with such immediacy that the other senses are easily neglected. On this walk however, do not neglect your ears. Listen to the "soundtrack" of the park, and explore how much it harmonizes with your visual impression. (Westerkamp 1974: 21)

I had thought about Queen Elizabeth Park many times, as I read Westerkamp's description of her soundwalk there in 1974. I remembered visiting the park when I was a teenager, and being astounded by its profusion of flowers. My soundwalk with Westerkamp in 1997 was my first visit to the park since becoming acquainted with her article.

¹¹⁶ To further explore how I approach soundwalking in interaction with Westerkamp's ideas and my own compositional process, in Appendix G I describe an electronic installation that I have made based on the soundwalk that Westerkamp and I did together, *Soundwalking Queen Elizabeth Park*.

As we moved through the park on that soundwalk, we were connected by our ears. Westerkamp carried a portable DAT recorder and stereo microphone, while I had two still cameras: a good 35 mm., and a lower quality automatic, for surprise moments. I wanted to keep a visual and aural record of our walk, so that I could reflect on it later and make a multimedia presentation (now the "Soundwalk in the Park" section from the main menu) as part of the CD ROM on Westerkamp.

Being connected by our ears was intensely intimate: we were sharing a private, amplified perspective on the park. Occasionally, I would disconnect my headphones in order to take a photograph, instantly changing the relation. At that point, I no longer shared the auditory connection, and in the process of framing Westerkamp, separated myself from her perspective momentarily before returning. When Westerkamp was doing close-up recording, I took photos without disconnecting. In these cases, I was restricted by the length of the headphone cord—just a few feet. I remember this being particularly obvious when we investigated the area around a creek that ran through the park. As I leaned backward to take a photograph, and Westerkamp leaned forward to close-mike the creek, we teetered just on the edge of balance, almost falling more than once, and laughing in our precarious choreography. Somehow, these three positions of listening connection, photographic framing, and framing while listening seem like my relationships to Westerkamp as a composer, a musicological researcher, and as a friend. At times, I am listening with her, at times reflecting on her work to comment on it or frame it from the perspectives of various critical theories, always attempting to balance these perspectives, at times teetering on slippery ground, seeking balance through the choreography of friendly dialogue and laughter.

Our walk took about ninety minutes, generally following the path that Westerkamp had mapped in 1974, through different areas of the park. It was a warm, sunny summer Sunday evening, and there were many visitors enjoying the evening there.

Parking lot area

The most exposed area of the park is the parking lot ... Walk towards the fountains and continue to listen to the city sounds until they disappear behind the sounds of water. (Westerkamp 1974: 21)

We began our walk by the parking lot area, where we immediately noticed a difference from Westerkamp's initial walk there in 1974: the fountains that she described in this entrance area were no longer functioning. There was nothing to mask the city sounds, so they were omnipresent. For a park which was originally designed around water sounds, this was a significant absence.

At the beginning of the soundwalk, Westerkamp identified the place, date and time of recording. She believes that it is important to recognize that places sound different from time to time, and of course the results of the soundwalk differ depending on who is doing the recording.

Knife-Edge

Close to the fountains you will find a metal sculpture ("Knife Edge" by Henry Moore). Explore it visually as well as acoustically...Produce a wide variety of sounds...Put your ear against the surface and listen to the inside (Westerkamp 1974: 21)

A group of students were passing, and Westerkamp invited them to play the sculpture, which they did quite enthusiastically and loudly. As she circled the sculpture, I could hear the character of the sounds change according to the players' motions, and our shifting perspective. Afterwards, the players were curious about what we were doing there, why we were recording. We talked for a few minutes, then went on.

As we walked over from the sculpture towards the Conservatory, an airplane passed overhead, with its characteristic falling glissando. Westerkamp guided the microphone towards the building vents of the Conservatory, timing her motion so that the sound of the airplane seemed to be swallowed by the rising amplitude of the broadband vent sound, in one continuous gesture.

Conservatory

When you walk into the conservatory, you are entering an artificially created, tropical environment ... Does it look and smell and feel tropical? Does it sound tropical? (Westerkamp 1974: 21)

The Bloedel Conservatory is a miniature tropical rainforest, constructed by BC's largest lumber company, an exotic gem perched in an urban centre, no chainsaws in earshot. Once again, Westerkamp noticed a difference from her earlier walk. The waterwheel in the conservatory was not working properly; its characteristic sound was muted and uneven. The conservatory was filled with tropical plants, fish and birds, including some very vocal and hilarious green parrots who were mimicking children's greetings and screams.

Sunken Garden

...a section of the park which is acoustically of special interest. Can you hear the sounds of the city disappear while you walk down into the garden? Observe its formations and explore how much these influence its acoustics. (Westerkamp 1974: 23)

The Sunken Garden is built in an old quarry, and the high stone walls of this area block outside sounds. I heard the sound of traffic almost disappear, with the exception of the occasional siren, providing an experience with more acoustic clarity, the quality that Westerkamp identifies with wilderness. Next to the path, which wound down to the lower level, some Sunday drummers were playing, reminding me of High Park in Toronto, and

Mount Royal Park in Montreal. Their drumming accompanied us as we walked down towards the waterfall, and by chance intensified as we approached the water, seeming to mimic the intensity of the water from our perspective. In the flower beds of the sunken garden is a large, prickly plant like a giant rhubarb, several feet tall. Westerkamp says that it disappears entirely in the winter. We stopped and recorded our fingers touching the underside of the leaves. Again, a passerby approached to ask what we were doing, and we talked for a while. Here we altered Westerkamp's original route slightly, and went towards the creek.

Creek

Sit down and let the sounds of the flowing water soothe you. The water winds its way through channels and gaps between rocks and murmurs in new voices, which you have not heard yet. And if you were to listen to more water there would be more new voices, an endless variety of them.... (Westerkamp 1974: 23)

We spent more time at the creek than anywhere else. Westerkamp is fascinated by the endless variety of water voices, and her approach to close-up recording articulates them well. She shifted from one stepping-stone to another, moving the stereo microphone to highlight how the water found its way through crevices, over boulders, around branches in its path, illustrating the architecture of the creek bed, and the dance of the water through its sculptural forms. I was fascinated by the timbral diversity of the different water sounds, and the sense of flow in the recording, created by the dance between the creek waters and Westerkamp's movements around them.

When we reached the pasture at the end of the creek, we noted a loud motor sound like a leaf-blower or something of that kind. It was partly masking the quiet, high-pitched trickling of the water, but we couldn't locate the source.

Quarry Garden

We walked up the hill towards the quarry garden, which was cut into the mountain below the Conservatory.

The main acoustic feature of the Quarry Garden is its echo. Discover it and find out where and how it is produced. (Westerkamp 1974: 23)

We could hear the echo quite clearly off the side walls of the garden. We could also hear the motor sound, even louder here. It diminished as we moved to one side of the quarry and climbed the steps to the top. It was only later, as I worked with the recording to excerpt sections for the website, that I located the source of the motor sound: the building vents in the Conservatory. The quarry, cut into the mountain, acted to funnel the building vent sound down to the creek.

At the top of the quarry garden, the steps led out to the lookout area, crowded with sunset-viewers. We listened for a moment, then ended the soundwalk.

We walked again through the park this April, when I visited Westerkamp to hear her in performance and talk about the CD ROM. It was earlier in the day, earlier in the year. The park was in full spring bloom, and the waters were lower. Shouldn't they have been higher in spring? But of course, the parks department controls water levels, not the seasons, and without the amplification of the recording equipment, we had to lean closer to hear the water voices whispering.

This experience of doing a soundwalk with Westerkamp, and listening to how she records the sound, was a very interesting one. I was amazed by how the final sound document, over an hour long, was practically seamless. Each moment flowed into the next. Even though, in order to describe the structure of the park, we spoke of it as having different areas, in the recording there are segues or border regions (walking down into the quarry

of the Sunken Garden, for instance, the acoustics would subtly change over time) rather than the rigid boundaries that appear on a map.

I was taken by moments of synchronicity, like the intensification of water sound juxtaposed with the intensification of the drumming, and how Westerkamp immediately responded to these opportunities. I also enjoyed how people would ask what we were doing. I am used to recording with smaller microphones, and the large, shock-mounted microphone that Westerkamp used on this day seemed to make people curious and invite them to approach us, leading to conversations with other park visitors in the middle of the soundwalk. Other than these conversations, we said little. Westerkamp would announce each area on the tape, and make short comments about what we saw. Mostly, we listened in silence. As I listened to the tape months later, I had visceral memories of events and sensations in the park.

Kits Beach Soundwalk

Kits Beach Soundwalk (1989), a composition that begins with a soundwalk recording at Kits Beach, comes out of Westerkamp's experience with the Vancouver Cooperative Radio show:

About ten years ago I produced and hosted a radio program on Vancouver Cooperative Radio called *Soundwalking*, in which I took the listener to different locations in and around the city and explored them acoustically. *Kits Beach Soundwalk* is a compositional extension of this original idea. (HW: *Transformations* liner notes. 1996: 23)

I have presented *Kits Beach Soundwalk* to listeners as it appears on the *Transformations* CD, as a recorded piece. Westerkamp also includes it in performances, doing the commentary and diffusing the sound live accompanied by the rest of the piece on tape.

Her program note indicates her interest in the acoustics and cultural significance of the place of recording:

Kitsilano Beach—colloquially called Kits Beach and originally in native Indian language *Khahtsahlano*—is located in the heart of Vancouver. In the summer it is crowded with a display of "meat salad" and ghetto blasters, indeed light years away from the silence experienced here not so long ago by the native Indians.

The original recording on which this piece is based was made on a calm winter morning, when the quiet lapping of the water and the tiny sounds of barnacles feeding were audible before an acoustic backdrop of the throbbing city. In this soundwalk composition we leave the city behind eventually and explore instead the tiny acoustic realm of barnacles, the world of high frequencies, inner space and dreams. (HW: *Transformations* liner notes. 1996: 23)

Musical Structure

The tape part of *Kits Beach Soundwalk* is structured in dialogue with the spoken commentary. I will describe it here interspersing initial commentary with Westerkamp's score for the spoken part. The score does not include any timings, since Westerkamp uses specific sounds on the tape as cues. I have added timings from the CD version to facilitate my discussion.

The piece begins with about twenty seconds of the Kits Beach ambience, with waves lapping the shore, birds in the background, and the deep hum of city traffic as an acoustic backdrop.

[00:21]¹¹⁷ (Bird)
It's a calm morning,
I'm on Kits Beach in Vancouver.

[Ducks quacking]

It's slightly overcast — and very mild for February.

[CD version says January]¹¹⁸

¹¹⁷ This section is built around Westerkamp's performance score. My comments and additions are added in square brackets [].

¹¹⁸ Although the recording was made in February, Westerkamp found that word difficult to say in performance, so changed it to January.

It's absolutely windstill.
The ocean is flat, just a bit rippled in places.
Ducks are quietly floating on the water.

[A slightly louder wave]

(Waves)
I'm standing among some large rocks
full of barnacles and seaweed.

[Louder waves again]

The water moves calmly through crevices.

[Seaplane overhead]

The barnacles put out their fingers to feed on the water.
The tiny clicking sounds that you hear, are the meeting of the water and the barnacles. It trickles and clicks
and sucks and...

(Trainhorn, crow)
The city is roaring around these tiny sounds.
But it's not masking them.

[Louder waves and crow]

(Wave)

[1:42] I could shock you or fool you by saying that the soundscape is this loud. (INCREASE LEVELS)

But it is more like this. (LOWER LEVELS AGAIN)

The view is beautiful — in fact, it is spectacular.
So the sound level seems more like this. (LOWER LEVELS FURTHER)
It doesn't seem that loud.

But I'm trying to listen to those tiny sounds in more detail now. Suddenly the background sound of the city
seems louder again. (INCREASE LEVELS) It interferes with my listening. It occupies all acoustic space
and I can't hear the barnacles in all their tininess. It seems too much effort to filter the city out.

[There is a major shift here, starting at 3:00, as the field recording is slowly faded out and
the studio-manipulated sounds fade in].

Luckily we have bandpass filters and equalizers. We can just go into the studio and get rid of the city,
pretend it's not there. Pretend we are somewhere far away.

[This commentary is accompanied by the taped sounds gradually increasing in volume. The barnacle sounds have been filtered to emphasize their sparkling, crackling qualities. The sounds continue, solo, until about 3:30].

These are the tiny, the intimate voices of nature, of bodies, of dreams, of the imagination.
(ssss)

[3:57] You are still hearing the barnacle sounds, and already they're changing.

[The barnacle sounds are becoming more delineated and seem more clearly pitched]

[4:07] Alfred Tomatis says that high frequencies charge our brain and give us energy.

[The sounds have changed again, having a more regular pulse, and sounding more like insect sounds]

[4:16] I often hear these tiny sounds in my dreams. Those are the healing dreams.

[The insect-like sounds cross-fade with sounds of gurgling in the flat part of a creek]

(Creek)

[4: 37] In one dream women living in an ancient mountain village were weaving the most beautiful silken fabric. It sounded like a million tiny voices whispering, swishing, clicking, sizzling.

[Insect and creek sounds together. Two distinct timbres in dialogue]

(Birds, Wende's sound [synthesized whirr])¹¹⁹

[5:21] In another dream, when I entered a stone cottage, I entered a soundscape made by four generations of a peasant family sitting around a large wooden table eating and talking: smacking and clicking and sucking and spitting and telling and biting and singing and laughing and weeping and kissing and gurgling and whispering [5:45].

[new timbre added, a sharper, more percussive scraping sound, panned to move quickly.

Tape only to 6:35]

(Clicking, Piano strings)

¹¹⁹ Composer Wende Bartley contributed a sound for Westerkamp to use in this piece, a high-frequency synthesized whirring.

[tinkling sound 6:33]

In another dream I heard bullets tinkling, bouncing like tiny marbles.

[6:42. New timbre: rhythmic clicking]

A man was pursuing me with a gun. I was frightened. But the bullets tinkled. Metallic, tiny seductive semen tinkling all around me.

[Rhythmic clicking becomes louder, dominating attention]

Like in Xenakis's *Concret PhII*, made from the sounds of the discharge of smoldering charcoal. Tinkling all over the Brussels Pavilion, "like needles darting from everywhere," as Xenakis says. You can hear excerpts of that piece right now. [7:17]

[7:41] (Shortly after Xenakis starts, piano arpeggios)

[Arpeggios are in the same high frequency range as the other sounds]¹²⁰

In another dream, sitting in the car with a woman friend, I heard sounds of glass blinking and tinkling, sparkling. On the car radio they announced that it was Mozart — the way Tomatis wants us to hear Mozart. Tinkling and sparkling. [8:00]

[8:04. Introduction of Mozart in the background, filtered to emphasize high frequencies, from a Tomatis listening tape.]¹²¹

(Between Mozart)

[8:17] These were the healing dreams. Energizing.

[8:21. Mozart is a bit louder]

(Neon)¹²²

[8:47] As soon as I make space to hear sounds like this, or to dream them

¹²⁰ Westerkamp describes the source of these arpeggios: "I had played around with tape speed and sped up some of the higher pitched piano string sounds (from an old broken, out-of-tune piano in an abandoned house on Slocan Lake in the Kootenays). A lot of the tape mix and the way the words fit with the mix was total coincidence (the most obvious example being the clicking sounds near the bullets section in the text)."

¹²¹ Westerkamp says "I took [this sound] randomly from a cassette tape that a boy (a friend of Sonja's) was listening to. This boy had been in the Tomatis program in the Listening Centre in Toronto and when he moved to Vancouver, he continued to listen to these tapes."

¹²² Westerkamp: "It is a neon sign above a shop with arrows and the light pulses from left to right (to the entrance of the shop) through the arrows."

[8:52. The sound of the city blows back in, gusting through the other sounds on tape to dominate the acoustic space]

then I feel the strength to face the city again or even to be playful with it.

[9:00. The city sound gusts more strongly, as Westerkamp's voice becomes more assertive in tone and increases in amplitude].

Play with the monster.
Then I can face the monster.

At the end, the city sound becomes louder and louder, with its noisy quality emphasized, as the other sounds are faded out, 9:42.

In summary, the piece is in nine main sections which are characterized by changes in sound timbres as well as changes in text.

1. 0:00 to 1:42, soundwalk on Kits Beach
2. 1:42 to 3:00 play with levels
3. 3:00 to 4:16 transitional sequence: barnacle sound to dreams
4. 4:16 to 5:21 first dream: female generations; creek and insects
5. 5:21 to 6:35 second dream: stone cottage; birds and Wende's sound
6. 6:35 to 7:41 third dream; male pursuer; Xenakis
7. 7:41 to 8:17, fourth dream: Mozart car radio; Mozart
8. 8:17 to 8:52 transitional sequence: Mozart and neon to city
9. 8:52 to 9:42 city play

The tape part in the first section is characterized by a relatively unaltered recording which sounds as though it could have come from a soundwalk. Waves and bird sounds are heard, as well as the hum of the city. In the second section, the tape part continues as an unedited soundwalk recording as Westerkamp alters the sound levels, bringing attention to the constructedness of this soundwalk recording, focusing attention on the relationship between self and environment by changing the amplitude balance between voice and tape

parts. In section three, she uses the sound of the barnacles to lead the listener into the world of high frequencies, as the city sound is filtered out and the intricacies of the barnacle sounds are revealed. She talks about the importance of high frequencies in healing and energizing. The first dream begins as other high frequency sounds are introduced: rivulets in a creek and insect sounds. These are differentiated on the basis of timbre and rhythm, since their pitch range is similar to the barnacle sounds. Each succeeding dream can then be associated with sounds of different timbres and rhythms: the second dream is juxtaposed with bird sounds and a sound given to Westerkamp by Wende Bartley. The third dream is associated with Xenakis's *Concret Ph II*. The fourth is juxtaposed with Mozart. Westerkamp says that she did not consciously associate certain sounds with the text, but that many of these juxtapositions are due to coincidence rather than intent.

After the final dream, there is another transitional sequence from dream state back to reality, as the sounds of Mozart are layered with the buzzing of neon bulbs. A low frequency mix appears at the end, invoking the idea of city as monster, as Westerkamp relates:

It is an exaggerated low frequency mix, parts of which I had developed for a play years before to create the sense of a monster, gaping mouth, dragon, etc. It had the rattle snake sound as part of it and I think I may have added some of the Kits Beach ambience. (Westerkamp, email correspondence, April 1999)

This is the most dramatic use of sound design that I am aware of in Westerkamp's work. She uses a technique that is used frequently in film sound design work: the juxtaposition of an animal sound (in this case, the rattlesnake sound) with a mechanical sound (the city traffic) in order to give the mechanical sound more of a sense of wildness and danger. Ironically, then, the city becomes more monstrous through its association with an icon of American wilderness, the rattlesnake. Although Westerkamp earlier set up an opposition between the quiet and intimate voices of nature against the dominating sounds of the city,

she dramatizes this opposition through the use of a voice from nature that is frightening when heard up close.

Listener Responses

Because this piece is so clearly associated with Westerkamp's *Soundwalking* show on Vancouver Cooperative Radio, I wanted to be sure that I played it for some Vancouver residents to get their responses, as well as playing it for a number of other audiences. Accordingly, I set up a listening session at the Western Front, a well-known Vancouver performance space, with the help of composer Jean Routhier, in April of 1998. We advertised widely, in a local music newsletter, announcing it at a concert earlier in the week, and at the Front itself. We hoped to attract a wide range of Vancouver residents. Unfortunately, only four people attended. As well as playing *Kits Beach Soundwalk*, I also played two other pieces that could clearly be associated with the Vancouver area: *A Walk Through the City*, and *Talking Rain*. These four responses are quite detailed, and engage clearly with the issue of sounds related to the Vancouver area. I only wish that more had been available. As well, I played this piece for a group of radio artists in Peterborough, which was interesting because their perspective was as experts in the field of community radio. I also played it for a number of undergraduate music classes.

Commentary on the piece focused to a large extent on the role of the speaking voice, which is more prominent in this piece than in others. There was also some commentary on musical structure, imagery, places, and spatial movement.

Musical Structure

Some listeners responded to the piece as radio art. Anomaly@zipcon.net (26m, contact by email)¹²³ says "I find "Kits Beach Soundwalk" one of the few pieces of radio art to hold my interest and really take me in." Amelia (45f, Queen's gender and music class) says that the piece "reminds me of Glenn Gould's 'Idea of North' radio shows."

Other listeners question whether this piece can be considered music, suggesting instead that it is a form of documentary. "I don't know why it is considered a musical composition rather than an oral documentary" (Newton, 22f, Queen's gender and music class). Another listener comments "More of a soundscape story than a composition. Music used to supplement the narration, rather than vice versa" (Fredd, 23m, Queen's electroacoustic music). Both of these comments focus on the interaction between the spoken narrative and the other sounds in the piece.

Two other listeners did not question the musicality of the piece, but remarked on the balance between vocal narrative and other sounds in different ways. Melody (20f, Queen's electroacoustic composition) comments that the narrative is quite educational and says "programmatic because of this." DqM (22, Waterloo composition class) says "Funny how Mozart is secondary."

In radio art, the question of whether something is a composition does not arise in the same way as it does in music. Composition is considered the practice of putting sounds¹²⁴ together in some way, and as I noted earlier in the chapter on epistemology, some radio artists consider radio art to be defined as concerned with meaning, privileging narrative. Within music, the working definition of composition as understood by students is that of

¹²³ Throughout the discussions of Westerkamp's pieces, I use the following to identify listener responses: Pseudonym as given by respondent (age followed by m for male or f for female, location of response)

¹²⁴ Or words, in creative writing; or images in visual art.

abstract construction with sound. Compositions are not supposed to be expository narratives, or documentary. Narration should only supplement other sounds, and should not be prominent, should not challenge the supremacy of abstract construction with sound, the primacy of absolute music.

As I mentioned earlier in the chapter on epistemology, radio art such as Glenn Gould's "Idea of North" defies the restrictive polarity of meaning in radio art and abstract play in music by doing both simultaneously. This work is at times meaningful, and at times constructs fugal edifices in which meaning is harder to locate, and the listener becomes drawn into perception of other aspects of the sound, while at the same time hearing poetic fragments of meaning.

Kits Beach Soundwalk is not constructed with layers of simultaneous conversations, as Gould's work is. There is only one voice, Westerkamp's. The longest time that we hear the taped sounds without any words is about fifty seconds (from 5:45 to 6:35), with several other segments around twenty to thirty seconds each. But this does not mean that the piece is a straightforward documentary. The vocal part is poetic, leading the listener into imaginary dream worlds linked to different sparkling sounds, what Augusta (46f, Queen's electroacoustic music) calls "ecological poetry."

Kits Beach Soundwalk is hard to place as music or radio art to people unfamiliar with the genre of soundscape composition. Even within this genre, recorded soundwalks are rare: I am not aware of any being publicly available before Westerkamp began her radio show in 1978. Even since then, most soundscape compositions do not reveal the presence of the recordist as clearly as Westerkamp's work, nor the relationship to a very specific place. A newspaper review of *Kits Beach Soundwalk* links the piece to *musique concrète*. Stephen Pedersen says:

Westerkamp works in the field of “musique concrete” promoted, if not invented, by Edgard Varese in the fifties. It was virtually abandoned by composers with the advent of synthesizers in the early sixties ("Sound Artworks Clear and Simple" *Halifax Chronicle-Herald*, October 28, 1991).

His review indicates how little this music critic knows about *musique concrète*, not to mention soundwalk recording. In this summary, he does not mention the composer who invented the term, Pierre Schaeffer, or anyone who has worked in *musique concrète* since the early sixties. The genre sounds like an anachronism, as it tends to do in electroacoustic music textbooks as well (see Chapter 2). It is not surprising then, that Pedersen also does not delineate how soundscape composition is related to *musique concrète* in its use of recorded sounds, or how it might be different in its exploration of sounds in their environmental context as well as, rather than only as sound objects.

Westerkamp describes how her soundwalking pieces work as radio art:

It is still relatively unusual to hear environmental sounds or soundscapes on the radio. This type of radiomaking presents the familiar as though artificial, through a loudspeaker, second hand, framed in space and time, and therefore highlighted. Daily life is thus presented from a new acoustic angle. Such radio can assist us in listening to our everyday lives, to who we are as individuals and as a society.

In some soundwalks I speak "live" from the location of the recording directly to the listener. My voice forms the link to the listener who is not physically present. I speak about the sounds or soundscapes that are audible but also about aspects extraneous to the recording such as the weather, time of day or night, the feel of the place, the architecture, how the environment looks. The voice transmits information about a place that would otherwise not be apparent from raw environmental recordings and assists in transporting the listener into each specific soundscape that is broadcast. It is also a constant reminder of the recordist's presence in the environment and of the fact that this presence creates a specific acoustic perspective for the listener — that this particular microphone, this particular recording presents only one truth about the environment. By doing so, it is intended to create an awareness or curiosity in each individual listener of a unique acoustic perspective. (Westerkamp, 1994: 90)

Kits Beach Soundwalk emerged out of Westerkamp's work as a radio artist, and has since been presented as a performance tape-vocal piece in concerts, and as a pre-recorded work on CD. Westerkamp uses her voice as a link to listeners, leading them from the beach soundscape into her dream world. She comments on the sounds to focus attention on their social meanings.

... [environmental sound] also has a social meaning ... That's really what keeps me in this area. The connection between the musicality of a sound and the social meaning of a sound. (Westerkamp, quoted in Young, 1984).

For Westerkamp, the connection between social meaning and musical meaning is important. This is one of the reasons that she likes to work with recognizable environmental sounds, that retain their original reference points. Westerkamp explores the musicality of sounds, pushing at the boundaries of what many will accept as music, inhabiting a marginal space in terms of style—like a barnacle inhabiting the joining of two elements, or as Minfe expresses it, perhaps acting as a translator between the listener and the soundscape: "her spoken voice takes you for the soundwalk personalising and focusing it on you with her and nature. A beautiful idea!" (51f, participation by letter)

Voice Characteristics and Narration

Eight listeners said that they found the voice peaceful or soothing, while six listeners described it as annoying or disruptive. P-Ron (22m, Queen's electroacoustic music) says "Very soothing. I would love to listen to this before sleeping." Cherry (22f, Waterloo composition class) comments "sound of narrator and birds soothing." Misanthrop (25m, University of Toronto grad colloquium) describes the piece as "Deana Troy's soliloquy on sound," a reference to the ship's counsellor on *Star Trek: The Next Generation* who is known for her empathic abilities and her adeptness at calming people, a comment that is somewhat tongue-in-cheek, as befits this respondent's chosen pseudonym.

Wim (20m, Queen's electroacoustic music) says "the soothing voice seems to take hold of your focus." Genesis (23f, individual listener, participation by letter) says: "I listen to her dialog and I react against it. I cannot be her, I cannot hear what she is hearing." These two quotes, resulting in quite different emotional reactions in the listeners, in which one reacts against the voice while the other continues to find it soothing, point to the most

persistent critique made about this piece: that the vocal narrative takes hold of one's focus, seeming to restrict people's abilities to go on their own journey during this work. Many people feel restrained to following Westerkamp's path. At the same time, the listener who says "I cannot be her" earlier comments "I've never been to Vancouver! — Where's Terry David Mulligan?" Terry David Mulligan is a Much Music video jockey, and host of the *Much West* show, which is highly constructed and directed with little left to the imagination. In her question about where Mulligan is, this listener expresses a desire for a guide who leaves much less room for creative response than does Westerkamp in this piece. Perhaps this listener does not feel the same pressure to be Mulligan, but why? Is it because audio is "hot" and involving against television's "coolness," as Marshall McLuhan would say? Is it because she felt more familiarity with the popular music focus of Mulligan's commentary? Is it because Westerkamp is a woman, and this listener felt more desire to identify, but could not? She does not say.

30 something (43f, Trent radio art day) articulates the frustration mentioned by several listeners, commenting "The voice is actually the dominant sound-thread. We have to filter it out in order to pay attention to the sound imagery she has set up." What is different in this listener's reaction is that she is able to filter the voice out, while others are not. Rick (22m, Trent Radio Art Day) says:

When I started listening to this piece, I created a mental image of what I was listening to. She didn't let me do this however, she created her own view of the sound, with everything she says the picture becomes more clear. We are her followers, and she leads us by the hand through different worlds.

Peter Hau (35m, Trent Radio Art day) perceives the voice differently depending on what sounds it is juxtaposed with: "Role of narrative, and constant set against Lows and Highs of environmental soundscape, is perceived differently; gratefully accepted in shaping (bad) city sounds, but a nuisance when interfering with "good" sounds." Another listener

at the Trent Radio Art day says that s/he only listened to the voice as long as the imagery matched her own: "useful initially then I disregarded it when her imagery did not match mine" (29, Trent Radio Art day, no other information about identity). It is interesting that the only two listeners of all the respondents who mention filtering out or disregarding the narration are radio artists. Also, the sense of the narration being too explicit or too dominant is much stronger in this group than elsewhere. In other sessions, only a few listeners reacted strongly against the narration, whereas in this group almost everyone did. Perhaps this is because of radio artists' desire to create their own narratives, or because of their increased listening sophistication, because of which Westerkamp's commentary seemed unnecessary or even invasive.

In every listening session, the group would laugh at the point where Westerkamp announces "Luckily we have bandpass filters and equalizers. We can just go into the studio and get rid of the city." This humorous demystification of the studio process is one of the elements that makes this piece different from a documentary: it shows its own process so clearly, rather than creating the smooth and distant glossing of an objective stance. Jon (23m, Queen's electroacoustic composition) points out this subjectivity when he says "sense of humour, manipulation of sound levels relate to personal experience." Westerkamp is self-reflexive—as well as reporting on what she sees to supplement the listener's hearing, she also talks about her perception of sound related to what she sees and imagines. One listener had an angry reaction to this self-reflexivity:

The voice is lying. Sound is not natural. She is creating this world far from water and city. When she says that the view is spectacular/beautiful she is looking at a material possession in her studio. I cannot separate her narrative from the fact that she is creating the piece. Personally, I prefer not to hear the human voice. I receive no visual image in my mind's eye. She says so by referring to the studio instruments. This piece elicits anger, nervousness, and a desire to be somewhere else. (Mario Welsh, 22m,

Queen's electroacoustic composition. This is the same listener who imagined an alien kidnapping in response to *Cricket Voice*.)

This listener seems to want a complete separation between natural and technological worlds. He hears Westerkamp's reference to studio instruments as a vindication of his anger at her supposed duplicity. Yet she is being very clear about what she is doing, playing with the boundaries between natural and constructed sound. She explains this approach in a recent talk:

Environmental sound is a type of language, a text. As well, the technology through which we transmit the sounds, has its own language, its own process. If we truly want to reveal meanings through recorded environmental sound and truly draw the listener inside these meanings, then we must transmit precise information and knowledge and demystify technologically hidden processes. When we have done something as simple as condensing the duration of a dawn chorus in order to fit it into a predetermined time frame on a CD, let's say that and how we have done it. Let's name the voices of the place, let's mention the weather for example or the season, the landscape, the social and natural context. (Westerkamp 1998: 8)

Westerkamp is refusing the role of the technical wizard, who magically whisks the listener off to an imaginary world. When she leads us into the studio, she tells us exactly what she is doing and why. To radio artists and composers, who do this all the time, perhaps this is unnecessary, whereas to less experienced listeners it may open doors.

Several respondents point to the pedagogical importance of the piece. Eurom (22m, Queen's electroacoustic composition) says "almost an introduction to electroacoustics!" BJ (22f, Queen's University gender and music) says "Tells a story of what everyday life is like. Everyone's too busy to stop and take a moment to appreciate the beautiful sounds of nature." Augusta also mentions this sense of timelessness, of an ability to stop and pay attention to the small sounds: "also gives a sense of timelessness, re, living for the moment, a sense of total immersion into the soundscape and environment" (46, Queen's electroacoustic composition). Malaclypse the Younger connects his acceptance of the narration with his strong agreement with the message that he heard in it:

At first, I didn't like the voice-over. After a point started to emerge, I liked the message and so the narration was ok. The rumbling city in the background - very spooky and effective. Very important message. Have

you ever wondered if there are primal panic reflexes which are constantly being triggered by urban life, without our consciously realizing it? I have. (21m, Waterloo composition)

The piece makes Jemma realize that we hear everyday sounds transformed in our dreams. Even though at first she describes the narration as too obvious, it articulates relationships to sound that she had not thought about. The relationships between words and sounds in the piece alter her perceptions of the sounds:

Some of what's said almost seems too obvious, but yet we wouldn't know how to put it into words. Uses words to change our perceptions of sounds, i.e. barnacle sounds to sizzling to sounds of a family. Interesting: presence of every-day sounds in our dreams! We incorporate our sound environment into our lives. (23f, Waterloo composition)

This piece, emerging from Westerkamp's *Soundwalking* show and her experience with the World Soundscape Project, has a more clearly articulated verbal message than others, related to acoustic ecology. She wants to make people more aware of the sounds around them, then to lead people into the healing barnacle sounds, away from the constant distracting hum of the city, so that they can return refreshed as she does. Certainly with these listeners she has succeeded. They are thinking more about living in the moment, the presence of everyday sounds in their dreams, and the panic reflexes that may be brought on by traffic sounds.

Some listeners responded with ambivalence to the message. Cora (25f, Queen's University gender and music) says:

“the View is beautiful” No it's not. This is the environment which I don't know. I don't know this space. It's a foreign space. I belong in the city. I have the city. But I don't have this environment. I dream nature. I often dream waves. Yet still it's external to me. Yet it's internal to me. My healing dreams include waves very often. A bird of ... black flying just above waves but without sound which is because it's too powerful, and makes my ears shut. This sound in my dream always exists in me, yet is foreign to me. I live in a building where I don't see fish, birds, waves. These exist in my dream. Inside of me. I don't like this sound externalized.

Cora is clearly agitated by the piece, remembering her dreams yet not wanting to hear the sound of her dreams externalized (not even to herself, since her ears shut). She insists that she belongs in the city and the space is foreign to her while also internal to her—perhaps because Kits Beach is simultaneously city and waves, reality and dream, external and internal. She wants to keep her dreams secret, separate from her waking world, whereas Westerkamp is bringing the two together.

High-Frequency Sounds in the Dream Sequence

Several listeners had strong reactions to the high-frequency sounds. Two listeners described the sounds in the Mozart section as like glass prisms. Earlier in the piece, reactions to the high frequencies were more mundane or domestic. Cooil (30m, Queen's electroacoustic composition) says "the barnacle sounds reminded me more of frying eggs giving more intense hot day feel." Four listeners in total referred to this sound as like frying eggs. Smitty the Rickety Old Man says "sounds like she's cookin' up some eggs," (19m, Queen's electroacoustic composition) situating Westerkamp in the kitchen.

One listener said that she normally finds high-frequency sounds irritating rather than healing, but they did not irritate her during this piece. Another had a stronger reaction: "ultra-high frequencies make me cringe; make my head spin" (Genesis, 23f, contact by mail). However, most listeners liked the high frequency sounds, describing them as delicate, stimulating, sparkling or magical. Stephen Pedersen says "there was a magic in those sounds. It came from our sense of mingled delight and astonishment that such delicacy goes on under our very, very sophisticated noses, and that there is something in them of an unthinkably ancient past, as if a time machine had suddenly deposited us in the middle of the paleozoic."

Some listeners linked the barnacles sounds with intimacy: "can hear intimate sounds of barnacles [feel like part of something special]" (Cherry, 22f, Waterloo composition class). Tricam (33m, University of Toronto graduate seminar) associates the entire dream section with intimacy: "when she cuts the city sounds the impression changes from grandeur to intimacy." Cooil (30m Queen's electroacoustic composition) associates Westerkamp's voice with an intimacy that is almost invasive: "the talking made me feel that I was spying on her or reading her diary." This comment indicates a degree of discomfort with intimacy, perceived as an invasion of privacy. This issue also arises with Westerkamp's *Moments of Laughter*, which is the subject of Chapter Eight.

Interestingly, there were very few comments on the content of Westerkamp's dream narration. Jon (22m, Waterloo composition) says "comparing bullets to semen. Discharging, other sexual imagery" but this is the only comment on the remarkable sequence where Westerkamp describes a scene where a man pursues her with a gun, then links this directly to the work of Xenakis, saying that the bullets in the dream are like "tiny seductive semen," and also like the sounds of discharging charcoal in Xenakis's *Concret Ph II*.

Is Westerkamp's dream making a connection between the sublimation of male aggression (bullets that tinkle rather than blasting, transformed from forces of destruction to tiny seductive semen) and the type of electroacoustic music made by Xenakis? She tells me that she does not know exactly why this piece by Xenakis fascinates her so much, but that when she listens to it, she feels similar pulls of attraction and repulsion that she felt in that dream.

Places

The places mentioned by listeners to this piece were of a narrower range than with Westerkamp's other works. Once again, because of the narration, listeners seemed more likely to choose a place that was closely related to the place that Westerkamp was describing. There is one exception to this: at the beginning of the dream sequence, one listener hears the sound environment as "like a tropical rain forest" (Ella, 22f, Waterloo composition). Several people referred to being on a beach, or by the sea, without saying where. Portia (21f, Queen's electroacoustic composition) says "sitting at a boardwalk." Amelia (45f, Queen's gender and music class) writes "I can smell the Pacific ocean."

Only one listener describes a beach that is clearly far from the West Coast:

Somerville by where Greenwood Racetrack used to be you can hear the traffic below and the water, on deck at the pool with eyes shut.
-doesn't sound like there anymore. Once you use equalizers.
-I don't enjoy voice over sounds.
-tiny sounds. -manufactured not real to me.
-piece lost meaning to me . Now I only see composer's meanings from her narration. (Kitty, 23f, Queen's gender and music)

This listener is describing a place from memory, and her connection to that memory does not seem to be able to withstand the power of the vocal narrative.

Those who were familiar with Kitsilano compare the initial part with their memories of that place. Smitty the Rickety Old Man is concerned with verisimilitude when he says "sounds pretty accurate for Kitsilano" (19m, Queen's electroacoustic composition).

Malaclypse the Younger (21m, Waterloo composition) says:

I've walked along Kits Beach early in the morning before - I never would've thought of listening to nature in that place. It looked like a suburb and felt like a golf course. Maybe it was the surreality of dawn which added to this.

The beach has even more meaning for residents of Vancouver, as Barry Truax¹²⁵ notes:

Kitsilano Beach is right in the heart of Vancouver, across from the West end, on English Bay, so this piece is precisely located in the local listener's mind. Its image is not that of the wild coastal areas, but the domestic familiarity of a popular local beach.

He describes the beach location precisely, close to the urban centre. For Vancouver residents, each local beach has a particular flavour or ambience, which connects the place to memories and events over years of experience, giving deeper meaning to the sound environment than would be heard by someone who had only visited once or twice.

By explicitly linking this piece in the CD liner notes with her *Soundwalking* show, Westerkamp associates it with the aims of that radio work:

Soundwalking took Co-op Radio listeners into the soundscape of Vancouver and surroundings.... It was my first attempt to create a program that listened to the communities of Greater Vancouver without attempting to report about them. It brought community soundscapes into listeners' homes and simultaneously extended listeners' ears into the soundscape of the community. (Westerkamp 1994: 89-90)

Westerkamp describes *Kits Beach Soundwalk* as a compositional extension of this original idea. Rather than remaining with the original place, the work extends it into the world of the studio, and the world of dreams, as well as the worlds of the concert hall in performance and that of the CD. In its most fixed form, on the CD, it still speaks to listeners about acoustic ecology, and relationships between dream and reality, studio and field recording, subjectivity and sound environment. But at the same time, in some cases listeners were blocked in their appreciation of this piece by an inability to identify with the vocal narration, or an experience of it as disruptive. Is this because of listener expectations about what constitutes a concert piece, what will appear on CD? Is it

¹²⁵ Truax attended one of my listening sessions, and agreed to be identified. I decided that because of his expertise in this area, it would be best to use his real name.

because many people value music as an abstract form where they can discover their own imagery, and reject guided imagery? Is it because they are hearing a female voice that some female listeners feel a need to identify, and because it is in such a crystallized form that they are unable to? In order to answer these questions, it would be necessary to analyze a larger set of pieces that use vocal narration of this type, and these are few and far between. By choosing to put such a piece on a CD, Westerkamp raises these important and difficult issues.

The "Wet" Coast:¹²⁶ Related Work

Perhaps it is still to the original audience of the *Soundwalking* show, the Vancouver audience, that this work speaks most directly. David Kolber, a Simon Fraser Acoustic Communication student working with composer Barry Truax, writes the following as an introduction to a paper about *Kits Beach Soundwalk*:

Looking out at the arteries of bridges and roads, with the honking of car horns and the screeching of tires, and in the foreground the humming swirl of a building's ventilation intake pipe, I want to run away. Even in our world of standby airline tickets and sensory deprivation tanks, how can one possibly hope to escape this moment-by-moment barrage of buzzers and sirens, of traffic belches and whining machinery, of lights and appliances humming a single, unending, unchanging, note. I find hope and insight in Hildegard Westerkamp's "Kits Beach Soundwalk." Through the piece, Westerkamp challenges the listeners to re-evaluate and to re-establish their place within the world around them. (Kolber 1997: 1)

Kolber's consciousness of the sound environment, revealed in his description of it, is a reminder of how Vancouver residents have been exposed to acoustic ecology as a discipline, to a far greater extent than in most other places. Since the 1970s, when the World Soundscape Project was established there, Truax, Westerkamp and others have worked to increase listeners' awareness of the sound environment. The *Soundwalking*

¹²⁶ Many people who live in British Columbia refer to it as the "Wet" coast rather than the West coast, especially after a rainy spring.

show introduced listeners to the sound of recorded soundwalks, broadcast on radio. Westerkamp's performances have introduced many Vancouverites to performed soundwalks, and sound journals. Works released on CD like *A Walk Through the City* and *Talking Rain* also refer to Vancouver's sound environment, extending to a larger and more geographically removed audience.

In the listening session at the Western Front, I played these two pieces, as well as *Kits Beach Soundwalk*, as examples of works that refer to the Vancouver environment. I was particularly interested in discovering to what extent Vancouver listeners' responses might differ from others elsewhere.

A Walk Through the City was composed in 1981. Westerkamp describes it as:

an urban environmental composition based on Norbert Ruebsaat's poem of the same name. It takes the listener into a specific urban location—Vancouver's Skid Row area—with its sounds and languages....A continuous flux is created between the real and imaginary soundscapes, between recognizable and transformed places, between reality and composition.

The poem ... is spoken by the author and appears throughout the piece, symbolizing the human presence in the urban soundscape. Its voice interacts with, comments on, dramatizes, struggles with the sounds and other voices it encounters in the piece. (*Transformations* liner notes: 21)

Barry Truax indicates that although Ruebsaat intended the poem to refer to any city, the sound recordings locate it exactly in Vancouver:

Even though the 'city' in Norbert's poem is non-specific, it's inevitable for me to associate it with Vancouver, right from the start with the long seaplane crescendo and its characteristic phasing effect as the sound reflects off the mountains and the water of the inner harbour—a very Vancouver sound. The voices ... from the East end near the middle and at the end are also very specific to Vancouver once that context is established.

Truax then continues by describing the drama articulated in Ruebsaat's poem, its symbolic aspects that are not as specific to Vancouver:

The very dramatic poem—articulated in a wide range of styles and recording distances—expresses the conflict in the city between its glittering opulence and the thinly veiled violence of its darker side. This is symbolized by the extremes of the frequency ranges used: the throbbing motors, pulsating beat rhythms, the droning ambiences and the glittering high frequencies of the bus brakes, sirens and the ethereal voices derived from them. One of the most striking moments—my favourite—is when Norbert whispers the text surrounded by these high and low frequency components: the city both distantly ominous and visceral as it borders our [aural] skin.

Responses by other listeners often mention that the piece is located in Vancouver's Skid Row area, as Westerkamp reveals in the liner notes, but particular sounds are not mentioned in relation to this, and the authors quickly move to a discussion of its significance in relation to their own experience:

A Walk Through The City is a journey through Vancouver's Skid Row area. Unsettling in its content, it is none the less essential listening. A reminder that we have become disassociated from one another and that for those living on the outskirts, ... life is a constant struggle to survive and be. Westerkamp herself does not pass judgment but simply portrays what is happening. Norbert Ruebsaat reads his poem over this soundscape. (Review for *Power Spot*, a Sydney Australia radio program)

This reviewer quickly moves to a discussion of commonality, using the pronoun "we," in a similar way as another reviewer, Clive Robertson:

A Walk Through the City is in part, a social interpretation of Vancouver as it exists. We hear urban sound: traffic, carhorns, brake squeals, pinball machines, people's voices. We hear street alcoholics apologizing before the microphone; we hear drunken songs. In programme notes for the piece, Westerkamp writes of "perceptual shifts between acoustic reality and our own acoustic imagination." ...The voice in comparison with the voices on the street is theatrical when it screams: "Somewhere a man is carving himself to death, for food." (1982: 349)

Robertson compares the voices on the street with the theatricality of the poem reading, continuing later in the article by asking: "if an urban environment already includes peoples' voices and conversation is there any clarity in further loading the bases with 'external human components'?" (1982: 349). His sentiments are echoed by a Vancouver resident in the Western Front listening session, but in the latter case, this listener's comparison is more strongly expressed because of his experience as a resident:

poetry and psychologized form of music/soundscape
doesn't need stylized and psychological poetry
this is alienating - doesn't feel like our city
recordings of citizens is much richer than narrator - let them tell their own
story
beautiful music coming from airplanes - something we've all heard
musically in life
she achieves mystery and sensuality in the commonplace
(Jo Sharpe, 22m, Western Front)

Note that this listener refers to the "beautiful music coming from airplanes," the seaplanes that Truax identifies as indicators of Vancouver's location. When Jo finds the poetry alienating, he dissociates it from his experience of "our city." In his description of *Kits Beach Soundwalk*, Jo says that Westerkamp presents "sound as more than phenomena, as the listener's own," through her association of certain sounds with the intimacy of dreams. His comments about *A Walk Through the City* reveal that alienation and dissociation occur when sounds no longer accord with the listener's own experience.

While Western listeners refer to urban sounds in *A Walk Through the City* as similar to their own experiences in urban centres, a listener from India points out the differences between Canadian and Indian soundscapes:

A Walk Through the City—combinations of sounds. A feeling of large spaces and loneliness dwells in all these compositions [she also mentions *Fantasia for Horns* and *Beneath the Forest Floor*] as compared to her

Indian soundscapes — with so much more happening in a given time and space with natural acoustical sounds as compared with the high frequency mechanical sounds in the West. (Minfe, 51f, contact by letter)

Listeners' responses are shaped by their previous experiences and the soundscape that they know. While Vancouver residents may hear specific sounds that locate the recording exactly in their neighbourhood (particularly if they are listening as carefully as Truax), Western listeners hear sounds as universally urban, and a listener from India hears what she hears as characterizing Western urbanity (high frequency mechanical sounds) in contrast to the soundscape of urban India (in which she hears more density of acoustic sounds and a busy human environment that is not lonely).

Talking Rain (1997) is a more recent composition based on sounds recorded in Vancouver and other parts of B.C. Once again, the comments recorded by Truax reveal its significance to local listeners:

Talking Rain invokes the West coast listener's immediate resonance to the varied sounds of rain in all of their infinite nuances. By manipulating small samples of rain sounds, she is able to draw us into the fine rhythmic and textural detail of an otherwise all too familiar sound. The accompanying forest birds ... foghorn and the frogs also conjure of the natural coastal soundscape - contrasted in the later section with the urban soundscape and its rain-washed streets whose acoustic ecology is more questionable and whose textures are more broad-band. Rainforest and urban jungle in high contrast! Unlike the ominous character of the city in the earlier piece [*A Walk...*] or the more distant background of *Kits Beach*, this city soundscape is more 'ordinary' and less threatening [we even get churchbells!] and rather readily dissolves back into a wave wash that connects us again (note the final footsteps)—as Vancouverites always feel they are—to the natural environment. An interesting contrast to *Gently Penetrating* where the personal respite from the inescapable chaos of the city [in India] is symbolized by the simultaneous metallic percussion sounds with their spiritual connotations of inner peace.

Truax raises a number of important issues in this response. He points out the familiarity to West-coasters of not only the rain (hence my earlier pun about the "Wet" coast, a description I heard often in Vancouver), but also the presence of a foghorn as well as West coast forest birds. His comments about the progression from the urban sounds as ominous, to distant, and finally ordinary are also interesting to Westerkamp, who was not aware of this progression in her work over the period 1981 to 1997, from youthful protest and alienation to more subtle juxtapositions and a sense of acceptance. Finally, Truax contrasts this piece with *Gently Penetrating*, based on an Indian soundscape, in which he hears metallic percussion sounds (perhaps the slowed bicycle bell sounds) as connoting inner peace in a busy urban environment, and contrasts this with the sounds of footsteps in *Talking Rain*, which connotes Vancouverites' connection with the environment. Certainly there is not the same sense of loneliness in *Talking Rain* that Minfe, the Indian listener, heard in *A Walk Through the City*. The urban sounds that we hear are individual cars passing close by on rain-soaked streets, not the distant roar of traffic or the mournful cry of slowed-down screeching truck brakes.

Jo Sharpe confirms Truax' description of rain as a quintessential Vancouver sound, as well as his description of the city as normal and unthreatening:

I've had a love affair with rain all my life.
It's the voice of the west coast.
Imagery moves from drenching rain, to tiny leak, to bath time [childhood, comfort] to forest, city, lakes, tin roofs, cement, plastic
Glad to hear the city eventually—humanity within the environment and humanity as environment
Circular form connotes a “zooming in” and ‘zooming out’ effect
(22m, Western Front)

This response also underlines earlier commentary by listeners to *Kits Beach Soundwalk*, as well as some of the other pieces that I analyze, in which they hear how Westerkamp

invokes a sense of zooming in and out, moving from grandeur to intimacy, drenching rain to tiny leak, bath-time to forest.

Both identity with rain and a sense of zooming in and out are noted as important parts of Westerkamp's work in an online review of *Talking Rain* by Mark Parlett (Smartt.com):

Talking Rain, by Hildegard Westerkamp is clearly working with a force of nature that is our identity here in Lalaland, water ... water and our proximity to it, is in our bones in Vancouver ... Like looking at many photographs of the same shot with each shot having a different depth of field, Westerkamp deftly crafts together water in all its manifestations into these intimate sonic polaroids that flow in and out of each other.

Parlett also notes the importance of Westerkamp's limited manipulation of sounds to his appreciation of the work:

Westerkamp stays out of the way in terms of the manipulation of the sounds. If there was any processing or treatments to the tape they were imperceptible and all but invisible. I had one of those sublime moments where upon deeper examination I realized that the composer may have done a little processing on some very tiny fast dripping droplets of water, and then I realized that I have encountered a sound like that in my life, a processed computer like sound, sitting beside a small creek in the spring when it's beginning to thaw and small drops of water are dripping under the ice downwards and it's almost metallic, and then I realized it doesn't matter either way.... Hildegard Westerkamp's work at its best brings us closer to the notion that we are the sounds that we hear...the "just listening" state...the dissolution of the "me listening to that " construct, this is the essence of *Talking Rain*.

Parlett mentions a sense of identity with sound. This is somewhat like Jo Sharpe's earlier comment that Westerkamp works with sound as not just phenomena, but as the listener's own, focusing on the relationship between sounds heard and the subjectivities who hear them. Unlike Jo, Parlett experiences this not as a sense of ownership of sound, but as a dissolution of boundaries between self and soundscape.

Westerkamp herself thinks of her work as being at once inside and outside of the soundscape, both recognizing that boundaries between self and subjectivity exist, and attempting to create the kind of immersive listening that temporarily dissolves those boundaries. She amplifies and focuses listening using a microphone.

The microphone is a seductive tool: it can offer a fresh ear to both recordist and listener; it can be an access to a foreign place as well as an ear-opener to the all-too-familiar, or a way to capture and speak back to the unbearable. (Westerkamp 1998: 6)

The sense of immersion offered by the microphone is contradictory, bringing the recordist further inside the soundscape while it also keeps her outside.

... the whole experience feels to the recordist as if he or she is more intensely inside the soundscape, because the sound is closer to the ear and usually amplified. But in fact, the recordist is separated from the original direct aural contact with the soundscape, especially from the spatial realities of closeness and distance, from the ability to localize sound correctly.

In that contradiction, however, lies the seduction of the microphone: it feels like access, like closer contact, but it is in fact a separation, a schizophrenic situation. Soundscape recordists exist in their own sound bubble and hear the place in which they are, completely differently from everyone else in the same place. They are like foreigners or outsiders, no matter whether the place is their home or foreign territory. (Westerkamp 1998: 7)

Kits Beach Soundwalk embodies this sense of being inside and outside the soundscape at once. Sounds enter Westerkamp's most intimate dreams from the everyday experience of walking the beach. She listens to the recording, immediately beginning to play with levels, to create an imaginary space far from the city, leading the listener through a world of high frequencies. She is at once inside the beach soundscape and reporting on it, inside the composition and relating how it is made.

Re-learning to hear and decipher the soundscape like a new language; treading carefully with curiosity and openness, aware that as recordists we remain outsiders; always attempting to create a type of naked, open ear; these may be ways to continue for the composer who wants to speak from inside the soundscape and at the same time transmit a genuine ecological consciousness. (Westerkamp 1998: 10)

Chapter Six

Soundwalking as Subjectivity in Environment: *Kits Beach and Queen Elizabeth Park*

In the mid-1970s, two events coincided that have changed the way I think about sound: the World Soundscape Project and the founding of Vancouver Co-operative Radio. (Westerkamp 1994: 87)

As a researcher with the World Soundscape Project, directed at Simon Fraser University by R. Murray Schafer, Westerkamp studied the soundscapes of various places in Europe and Canada in terms of their sociological, aesthetic, philosophical, and scientific significance. Also, through her contact with Schafer and his attitudes towards listening, Westerkamp developed her own approaches to listening to the sound environment, including a practice of soundwalking, individually and in groups (see also Chapter Four, pp. 138-142).

Her involvement with Vancouver Co-operative radio gave Westerkamp a place to actualize some of her ideas about sound ecology, particularly through her *Soundwalking* show. Her intention with the *Soundwalking* show was to take listeners to various locations in their immediate area, the Vancouver region, then to play back the sounds of these environments to listeners, framing and contextualizing them through on-air commentary. Sometimes, as in a program about Lighthouse Park, she would read excerpts of others' writings (in this case, Emily Carr). The shows often had a political point made acoustically — for instance *Silent Night* contrasts the name of the Christmas carol with the reality of acoustically crowded reverberant shopping malls in the weeks before Christmas, juxtaposing cash registers and holy music; *Under the Flightpath* repeats the words of residents saying they don't hear the planes any more, with the roaring of jets overhead.

Soundwalks and Composition

In her 1974 article about soundwalking, Westerkamp says that the functions of a soundwalk are orientation, dialogue and composition. We can use a soundwalk for orientation when in an unknown environment, as a mariner would use sounding to understand unknown waters.

Or go for an orientation walk in the city, any city, asking people for directions. Besides not getting lost that way, you will also get to know a little of the character of a city by listening to the way people answer. Listen to the sounds and melodies in their voices, listen for accents. (Westerkamp 1974: 25)

Dialogue can involve responding to the call of a bird or animal, finding echoes of landscape formations and building structures. Both orientation and dialogue are necessary for soundwalk composition:

Go out and listen. Choose an acoustic environment which in your opinion sets a good base for your environmental compositions. In the same way as the architect acquaints himself with the landscape into which he wants to integrate the shape of a house, so we must get to know the main characteristics of the soundscape into which we want to immerse our own sounds. What kinds of rhythms does it contain, what kinds of pitches, how many continuous sounds, how many and what kinds of discrete sounds, etc. Which sounds can you produce that add to the quality of the environmental music? Create a dialogue and thereby lift the environmental sounds out of their context into the context of your composition, and in turn make your sounds a natural part of the music around you. Is it possible? (Westerkamp 1974: 25)

To further understand Westerkamp's approach to soundwalks in composition, I first describe a soundwalk that we did together in Queen Elizabeth Park, Vancouver on August 17, 1997. This description indicates some of the issues that arise about listening, improvisation in response to chance events in the environment, and recording techniques that arise during a soundwalk recording. I then analyze *Kits Beach Soundwalk* (1989), a piece which Westerkamp describes as a compositional extension of her approach from the radio shows.¹²⁷

¹²⁷ To further explore how I approach soundwalking in interaction with Westerkamp's ideas and my own compositional process, in Appendix G I describe an electronic installation that I have made based on the soundwalk that Westerkamp and I did together, *Soundwalking Queen Elizabeth Park*.

A Soundwalk in Queen Elizabeth Park

Queen Elizabeth Park, situated close to where Westerkamp lives in Vancouver, is a place that she has visited frequently. It is a landmark of the area, described in tourist brochures as "Vancouver's oasis," containing the city's only tropical garden under the triodetic dome of the Bloedel Conservatory at the highest point of the park (also the highest point in the city), which provides a beautiful view of the urban area and surrounding mountains.

Queen Elizabeth Park is visually extremely attractive. It is a post-card park which captures the eye with such immediacy that the other senses are easily neglected. On this walk however, do not neglect your ears. Listen to the "soundtrack" of the park, and explore how much it harmonizes with your visual impression. (Westerkamp 1974: 21)

I had thought about Queen Elizabeth Park many times, as I read Westerkamp's description of her soundwalk there in 1974. I remembered visiting the park when I was a teenager, and being astounded by its profusion of flowers. My soundwalk with Westerkamp in 1997 was my first visit to the park since becoming acquainted with her article.

As we moved through the park on that soundwalk, we were connected by our ears. Westerkamp carried a portable DAT recorder and stereo microphone, while I had two still cameras: a good 35 mm., and a lower quality automatic, for surprise moments. I wanted to keep a visual and aural record of our walk, so that I could reflect on it later and make a multimedia presentation (now the "Soundwalk in the Park" section from the main menu) as part of the CD ROM on Westerkamp.

Being connected by our ears was intensely intimate: we were sharing a private, amplified perspective on the park. Occasionally, I would disconnect my headphones in order to take a photograph, instantly changing the relation. At that point, I no longer shared the auditory connection, and in the process of framing Westerkamp, separated myself from her perspective momentarily before returning. When Westerkamp was doing close-up

recording, I took photos without disconnecting. In these cases, I was restricted by the length of the headphone cord—just a few feet. I remember this being particularly obvious when we investigated the area around a creek that ran through the park. As I leaned backward to take a photograph, and Westerkamp leaned forward to close-mike the creek, we teetered just on the edge of balance, almost falling more than once, and laughing in our precarious choreography. Somehow, these three positions of listening connection, photographic framing, and framing while listening seem like my relationships to Westerkamp as a composer, a musicological researcher, and as a friend. At times, I am listening with her, at times reflecting on her work to comment on it or frame it from the perspectives of various critical theories, always attempting to balance these perspectives, at times teetering on slippery ground, seeking balance through the choreography of friendly dialogue and laughter.

Our walk took about ninety minutes, generally following the path that Westerkamp had mapped in 1974, through different areas of the park. It was a warm, sunny summer Sunday evening, and there were many visitors enjoying the evening there.

Parking lot area

The most exposed area of the park is the parking lot ... Walk towards the fountains and continue to listen to the city sounds until they disappear behind the sounds of water. (Westerkamp 1974: 21)

We began our walk by the parking lot area, where we immediately noticed a difference from Westerkamp's initial walk there in 1974: the fountains that she described in this entrance area were no longer functioning. There was nothing to mask the city sounds, so they were omnipresent. For a park which was originally designed around water sounds, this was a significant absence.

At the beginning of the soundwalk, Westerkamp identified the place, date and time of recording. She believes that it is important to recognize that places sound different from time to time, and of course the results of the soundwalk differ depending on who is doing the recording.

Knife-Edge

Close to the fountains you will find a metal sculpture ("Knife Edge" by Henry Moore). Explore it visually as well as acoustically...Produce a wide variety of sounds...Put your ear against the surface and listen to the inside (Westerkamp 1974: 21)

A group of students were passing, and Westerkamp invited them to play the sculpture, which they did quite enthusiastically and loudly. As she circled the sculpture, I could hear the character of the sounds change according to the players' motions, and our shifting perspective. Afterwards, the players were curious about what we were doing there, why we were recording. We talked for a few minutes, then went on.

As we walked over from the sculpture towards the Conservatory, an airplane passed overhead, with its characteristic falling glissando. Westerkamp guided the microphone towards the building vents of the Conservatory, timing her motion so that the sound of the airplane seemed to be swallowed by the rising amplitude of the broadband vent sound, in one continuous gesture.

Conservatory

When you walk into the conservatory, you are entering an artificially created, tropical environment ... Does it look and smell and feel tropical? Does it sound tropical? (Westerkamp 1974: 21)

The Bloedel Conservatory is a miniature tropical rainforest, constructed by BC's largest lumber company, an exotic gem perched in an urban centre, no chainsaws in earshot.

Once again, Westerkamp noticed a difference from her earlier walk. The waterwheel in

the conservatory was not working properly; its characteristic sound was muted and uneven. The conservatory was filled with tropical plants, fish and birds, including some very vocal and hilarious green parrots who were mimicking children's greetings and screams.

Sunken Garden

...a section of the park which is acoustically of special interest. Can you hear the sounds of the city disappear while you walk down into the garden? Observe its formations and explore how much these influence its acoustics. (Westerkamp 1974: 23)

The Sunken Garden is built in an old quarry, and the high stone walls of this area block outside sounds. I heard the sound of traffic almost disappear, with the exception of the occasional siren, providing an experience with more acoustic clarity, the quality that Westerkamp identifies with wilderness. Next to the path, which wound down to the lower level, some Sunday drummers were playing, reminding me of High Park in Toronto, and Mount Royal Park in Montreal. Their drumming accompanied us as we walked down towards the waterfall, and by chance intensified as we approached the water, seeming to mimic the intensity of the water from our perspective. In the flower beds of the sunken garden is a large, prickly plant like a giant rhubarb, several feet tall. Westerkamp says that it disappears entirely in the winter. We stopped and recorded our fingers touching the underside of the leaves. Again, a passerby approached to ask what we were doing, and we talked for a while. Here we altered Westerkamp's original route slightly, and went towards the creek.

Creek

Sit down and let the sounds of the flowing water soothe you. The water winds its way through channels and gaps between rocks and murmurs in new voices, which you have not heard yet. And if you were to listen to more water there would be more new voices, an endless variety of them.... (Westerkamp 1974: 23)

We spent more time at the creek than anywhere else. Westerkamp is fascinated by the endless variety of water voices, and her approach to close-up recording articulates them well. She shifted from one stepping-stone to another, moving the stereo microphone to highlight how the water found its way through crevices, over boulders, around branches in its path, illustrating the architecture of the creek bed, and the dance of the water through its sculptural forms. I was fascinated by the timbral diversity of the different water sounds, and the sense of flow in the recording, created by the dance between the creek waters and Westerkamp's movements around them.

When we reached the pasture at the end of the creek, we noted a loud motor sound like a leaf-blower or something of that kind. It was partly masking the quiet, high-pitched trickling of the water, but we couldn't locate the source.

Quarry Garden

We walked up the hill towards the quarry garden, which was cut into the mountain below the Conservatory.

The main acoustic feature of the Quarry Garden is its echo. Discover it and find out where and how it is produced. (Westerkamp 1974: 23)

We could hear the echo quite clearly off the side walls of the garden. We could also hear the motor sound, even louder here. It diminished as we moved to one side of the quarry and climbed the steps to the top. It was only later, as I worked with the recording to excerpt sections for the website, that I located the source of the motor sound: the building vents in the Conservatory. The quarry, cut into the mountain, acted to funnel the building vent sound down to the creek.

At the top of the quarry garden, the steps led out to the lookout area, crowded with sunset-viewers. We listened for a moment, then ended the soundwalk.

We walked again through the park this April, when I visited Westerkamp to hear her in performance and talk about the CD ROM. It was earlier in the day, earlier in the year. The park was in full spring bloom, and the waters were lower. Shouldn't they have been higher in spring? But of course, the parks department controls water levels, not the seasons, and without the amplification of the recording equipment, we had to lean closer to hear the water voices whispering.

This experience of doing a soundwalk with Westerkamp, and listening to how she records the sound, was a very interesting one. I was amazed by how the final sound document, over an hour long, was practically seamless. Each moment flowed into the next. Even though, in order to describe the structure of the park, we spoke of it as having different areas, in the recording there are segues or border regions (walking down into the quarry of the Sunken Garden, for instance, the acoustics would subtly change over time) rather than the rigid boundaries that appear on a map.

I was taken by moments of synchronicity, like the intensification of water sound juxtaposed with the intensification of the drumming, and how Westerkamp immediately responded to these opportunities. I also enjoyed how people would ask what we were doing. I am used to recording with smaller microphones, and the large, shock-mounted microphone that Westerkamp used on this day seemed to make people curious and invite them to approach us, leading to conversations with other park visitors in the middle of the soundwalk. Other than these conversations, we said little. Westerkamp would announce each area on the tape, and make short comments about what we saw. Mostly, we listened

in silence. As I listened to the tape months later, I had visceral memories of events and sensations in the park.

Kits Beach Soundwalk

Kits Beach Soundwalk (1989), a composition that begins with a soundwalk recording at Kits Beach, comes out of Westerkamp's experience with the Vancouver Cooperative Radio show:

About ten years ago I produced and hosted a radio program on Vancouver Cooperative Radio called *Soundwalking*, in which I took the listener to different locations in and around the city and explored them acoustically. *Kits Beach Soundwalk* is a compositional extension of this original idea. (HW: *Transformations* liner notes. 1996: 23)

I have presented *Kits Beach Soundwalk* to listeners as it appears on the *Transformations* CD, as a recorded piece. Westerkamp also includes it in performances, doing the commentary and diffusing the sound live accompanied by the rest of the piece on tape. Her program note indicates her interest in the acoustics and cultural significance of the place of recording:

Kitsilano Beach—colloquially called Kits Beach and originally in native Indian language *Khahtsahlano*—is located in the heart of Vancouver. In the summer it is crowded with a display of "meat salad" and ghetto blasters, indeed light years away from the silence experienced here not so long ago by the native Indians.

The original recording on which this piece is based was made on a calm winter morning, when the quiet lapping of the water and the tiny sounds of barnacles feeding were audible before an acoustic backdrop of the throbbing city. In this soundwalk composition we leave the city behind eventually and explore instead the tiny acoustic realm of barnacles, the world of high frequencies, inner space and dreams. (HW: *Transformations* liner notes. 1996: 23)

Musical Structure

The tape part of *Kits Beach Soundwalk* is structured in dialogue with the spoken commentary. I will describe it here interspersing initial commentary with Westerkamp's score for the spoken part. The score does not include any timings, since Westerkamp uses

specific sounds on the tape as cues. I have added timings from the CD version to facilitate my discussion.

The piece begins with about twenty seconds of the Kits Beach ambience, with waves lapping the shore, birds in the background, and the deep hum of city traffic as an acoustic backdrop.

[00:21]¹²⁸ (Bird)
It's a calm morning,
I'm on Kits Beach in Vancouver.

[Ducks quacking]

It's slightly overcast — and very mild for February.

[CD version says January]¹²⁹

It's absolutely windstill.
The ocean is flat, just a bit rippled in places.
Ducks are quietly floating on the water.

[A slightly louder wave]

(Waves)
I'm standing among some large rocks
full of barnacles and seaweed.

[Louder waves again]

The water moves calmly through crevices.

[Seaplane overhead]

The barnacles put out their fingers to feed on the water.
The tiny clicking sounds that you hear, are the meeting of the water and the barnacles. It trickles and clicks and sucks and...

¹²⁸ This section is built around Westerkamp's performance score. My comments and additions are added in square brackets [].

¹²⁹ Although the recording was made in February, Westerkamp found that word difficult to say in performance, so changed it to January.

(Trainhorn, crow)
The city is roaring around these tiny sounds.
But it's not masking them.

[Louder waves and crow]

(Wave)

[1:42] I could shock you or fool you by saying that the soundscape is this loud. (INCREASE LEVELS)

But it is more like this. (LOWER LEVELS AGAIN)

The view is beautiful — in fact, it is spectacular.
So the sound level seems more like this. (LOWER LEVELS FURTHER)
It doesn't seem that loud.

But I'm trying to listen to those tiny sounds in more detail now. Suddenly the background sound of the city seems louder again. (INCREASE LEVELS) It interferes with my listening. It occupies all acoustic space and I can't hear the barnacles in all their tininess. It seems too much effort to filter the city out.

[There is a major shift here, starting at 3:00, as the field recording is slowly faded out and the studio-manipulated sounds fade in].

Luckily we have bandpass filters and equalizers. We can just go into the studio and get rid of the city, pretend it's not there. Pretend we are somewhere far away.

[This commentary is accompanied by the taped sounds gradually increasing in volume.

The barnacle sounds have been filtered to emphasize their sparkling, crackling qualities.

The sounds continue, solo, until about 3:30].

These are the tiny, the intimate voices of nature, of bodies, of dreams, of the imagination.
(ssss)

[3:57] You are still hearing the barnacle sounds, and already they're changing.

[The barnacle sounds are becoming more delineated and seem more clearly pitched]

[4:07] Alfred Tomatis says that high frequencies charge our brain and give us energy.

[The sounds have changed again, having a more regular pulse, and sounding more like insect sounds]

[4:16] I often hear these tiny sounds in my dreams. Those are the healing dreams.

[The insect-like sounds cross-fade with sounds of gurgling in the flat part of a creek]

(Creek)

[4: 37] In one dream women living in an ancient mountain village were weaving the most beautiful silken fabric. It sounded like a million tiny voices whispering, swishing, clicking, sizzling.

[Insect and creek sounds together. Two distinct timbres in dialogue]

(Birds, Wende's sound [synthesized whirr])¹³⁰

[5:21] In another dream, when I entered a stone cottage, I entered a soundscape made by four generations of a peasant family sitting around a large wooden table eating and talking: smacking and clicking and sucking and spitting and telling and biting and singing and laughing and weeping and kissing and gurgling and whispering [5:45].

[new timbre added, a sharper, more percussive scraping sound, panned to move quickly.]

Tape only to 6:35]

(Clicking, Piano strings)

[tinkling sound 6:33]

In another dream I heard bullets tinkling, bouncing like tiny marbles.

[6:42. New timbre: rhythmic clicking]

A man was pursuing me with a gun. I was frightened. But the bullets tinkled. Metallic, tiny seductive semen tinkling all around me.

[Rhythmic clicking becomes louder, dominating attention]

Like in Xenakis's *Concret PhII*, made from the sounds of the discharge of smoldering charcoal. Tinkling all over the Brussels Pavilion, "like needles darting from everywhere," as Xenakis says. You can hear excerpts of that piece right now. [7:17]

[7:41] (Shortly after Xenakis starts, piano arpeggios)

[Arpeggios are in the same high frequency range as the other sounds]¹³¹

¹³⁰ Composer Wende Bartley contributed a sound for Westerkamp to use in this piece, a high-frequency synthesized whirring.

¹³¹ Westerkamp describes the source of these arpeggios: "I had played around with tape speed and sped up some of the higher pitched piano string sounds (from an old broken, out-of-tune piano in an abandoned

In another dream, sitting in the car with a woman friend, I heard sounds of glass blinking and tinkling, sparkling. On the car radio they announced that it was Mozart — the way Tomatis wants us to hear Mozart. Tinkling and sparkling. [8:00]

[8:04. Introduction of Mozart in the background, filtered to emphasize high frequencies, from a Tomatis listening tape.]¹³²

(Between Mozart)

[8:17] These were the healing dreams. Energizing.

[8:21. Mozart is a bit louder]

(Neon)¹³³

[8:47] As soon as I make space to hear sounds like this, or to dream them

[8:52. The sound of the city blows back in, gusting through the other sounds on tape to dominate the acoustic space]

then I feel the strength to face the city again or even to be playful with it.

[9:00. The city sound gusts more strongly, as Westerkamp's voice becomes more assertive in tone and increases in amplitude].

Play with the monster.
Then I can face the monster.

At the end, the city sound becomes louder and louder, with its noisy quality emphasized, as the other sounds are faded out, 9:42.

house on Slovan Lake in the Kootenays). A lot of the tape mix and the way the words fit with the mix was total coincidence (the most obvious example being the clicking sounds near the bullets section in the text)."

¹³² Westerkamp says "I took [this sound] randomly from a cassette tape that a boy (a friend of Sonja's) was listening to. This boy had been in the Tomatis program in the Listening Centre in Toronto and when he moved to Vancouver, he continued to listen to these tapes."

¹³³ Westerkamp: "It is a neon sign above a shop with arrows and the light pulses from left to right (to the entrance of the shop) through the arrows."

In summary, the piece is in nine main sections which are characterized by changes in sound timbres as well as changes in text.

1. 0:00 to 1:42, soundwalk on Kits Beach
2. 1:42 to 3:00 play with levels
3. 3:00 to 4:16 transitional sequence: barnacle sound to dreams
4. 4:16 to 5:21 first dream: female generations; creek and insects
5. 5:21 to 6:35 second dream: stone cottage; birds and Wende's sound
6. 6:35 to 7:41 third dream; male pursuer; Xenakis
7. 7:41 to 8:17, fourth dream: Mozart car radio; Mozart
8. 8:17 to 8:52 transitional sequence: Mozart and neon to city
9. 8:52 to 9:42 city play

The tape part in the first section is characterized by a relatively unaltered recording which sounds as though it could have come from a soundwalk. Waves and bird sounds are heard, as well as the hum of the city. In the second section, the tape part continues as an unedited soundwalk recording as Westerkamp alters the sound levels, bringing attention to the constructedness of this soundwalk recording, focusing attention on the relationship between self and environment by changing the amplitude balance between voice and tape parts. In section three, she uses the sound of the barnacles to lead the listener into the world of high frequencies, as the city sound is filtered out and the intricacies of the barnacle sounds are revealed. She talks about the importance of high frequencies in healing and energizing. The first dream begins as other high frequency sounds are introduced: rivulets in a creek and insect sounds. These are differentiated on the basis of timbre and rhythm, since their pitch range is similar to the barnacle sounds. Each succeeding dream can then be associated with sounds of different timbres and rhythms: the second dream is juxtaposed with bird sounds and a sound given to Westerkamp by Wende Bartley. The third dream is associated with Xenakis's *Concret Ph II*. The fourth is juxtaposed with Mozart. Westerkamp says that she did not consciously associate certain

sounds with the text, but that many of these juxtapositions are due to coincidence rather than intent.

After the final dream, there is another transitional sequence from dream state back to reality, as the sounds of Mozart are layered with the buzzing of neon bulbs. A low frequency mix appears at the end, invoking the idea of city as monster, as Westerkamp relates:

It is an exaggerated low frequency mix, parts of which I had developed for a play years before to create the sense of a monster, gaping mouth, dragon, etc. It had the rattle snake sound as part of it and I think I may have added some of the Kits Beach ambience. (Westerkamp, email correspondence, April 1999)

This is the most dramatic use of sound design that I am aware of in Westerkamp's work. She uses a technique that is used frequently in film sound design work: the juxtaposition of an animal sound (in this case, the rattlesnake sound) with a mechanical sound (the city traffic) in order to give the mechanical sound more of a sense of wildness and danger. Ironically, then, the city becomes more monstrous through its association with an icon of American wilderness, the rattlesnake. Although Westerkamp earlier set up an opposition between the quiet and intimate voices of nature against the dominating sounds of the city, she dramatizes this opposition through the use of a voice from nature that is frightening when heard up close.

Listener Responses

Because this piece is so clearly associated with Westerkamp's *Soundwalking* show on Vancouver Cooperative Radio, I wanted to be sure that I played it for some Vancouver residents to get their responses, as well as playing it for a number of other audiences. Accordingly, I set up a listening session at the Western Front, a well-known Vancouver performance space, with the help of composer Jean Routhier, in April of 1998. We advertised widely, in a local music newsletter, announcing it at a concert earlier in the week, and at the Front itself. We hoped to attract a wide range of Vancouver residents.

Unfortunately, only four people attended. As well as playing *Kits Beach Soundwalk*, I also played two other pieces that could clearly be associated with the Vancouver area: *A Walk Through the City*, and *Talking Rain*. These four responses are quite detailed, and engage clearly with the issue of sounds related to the Vancouver area. I only wish that more had been available. As well, I played this piece for a group of radio artists in Peterborough, which was interesting because their perspective was as experts in the field of community radio. I also played it for a number of undergraduate music classes.

Commentary on the piece focused to a large extent on the role of the speaking voice, which is more prominent in this piece than in others. There was also some commentary on musical structure, imagery, places, and spatial movement.

Musical Structure

Some listeners responded to the piece as radio art. Anomaly@zipcon.net (26m, contact by email)¹³⁴ says "I find "Kits Beach Soundwalk" one of the few pieces of radio art to hold my interest and really take me in." Amelia (45f, Queen's gender and music class) says that the piece "reminds me of Glenn Gould's 'Idea of North' radio shows."

Other listeners question whether this piece can be considered music, suggesting instead that it is a form of documentary. "I don't know why it is considered a musical composition rather than an oral documentary" (Newton, 22f, Queen's gender and music class). Another listener comments "More of a soundscape story than a composition. Music used to supplement the narration, rather than vice versa" (Fredd, 23m, Queen's electroacoustic music). Both of these comments focus on the interaction between the spoken narrative and the other sounds in the piece.

¹³⁴ Throughout the discussions of Westerkamp's pieces, I use the following to identify listener responses: Pseudonym as given by respondent (age followed by m for male or f for female, location of response)

Two other listeners did not question the musicality of the piece, but remarked on the balance between vocal narrative and other sounds in different ways. Melody (20f, Queen's electroacoustic composition) comments that the narrative is quite educational and says "programmatic because of this." DqM (22, Waterloo composition class) says "Funny how Mozart is secondary."

In radio art, the question of whether something is a composition does not arise in the same way as it does in music. Composition is considered the practice of putting sounds¹³⁵ together in some way, and as I noted earlier in the chapter on epistemology, some radio artists consider radio art to be defined as concerned with meaning, privileging narrative. Within music, the working definition of composition as understood by students is that of abstract construction with sound. Compositions are not supposed to be expository narratives, or documentary. Narration should only supplement other sounds, and should not be prominent, should not challenge the supremacy of abstract construction with sound, the primacy of absolute music.

As I mentioned earlier in the chapter on epistemology, radio art such as Glenn Gould's "Idea of North" defies the restrictive polarity of meaning in radio art and abstract play in music by doing both simultaneously. This work is at times meaningful, and at times constructs fugal edifices in which meaning is harder to locate, and the listener becomes drawn into perception of other aspects of the sound, while at the same time hearing poetic fragments of meaning.

¹³⁵ Or words, in creative writing; or images in visual art.

Kits Beach Soundwalk is not constructed with layers of simultaneous conversations, as Gould's work is. There is only one voice, Westerkamp's. The longest time that we hear the taped sounds without any words is about fifty seconds (from 5:45 to 6:35), with several other segments around twenty to thirty seconds each. But this does not mean that the piece is a straightforward documentary. The vocal part is poetic, leading the listener into imaginary dream worlds linked to different sparkling sounds, what Augusta (46f, Queen's electroacoustic music) calls "ecological poetry."

Kits Beach Soundwalk is hard to place as music or radio art to people unfamiliar with the genre of soundscape composition. Even within this genre, recorded soundwalks are rare: I am not aware of any being publicly available before Westerkamp began her radio show in 1978. Even since then, most soundscape compositions do not reveal the presence of the recordist as clearly as Westerkamp's work, nor the relationship to a very specific place. A newspaper review of *Kits Beach Soundwalk* links the piece to *musique concrète*. Stephen Pedersen says:

Westerkamp works in the field of "musique concrete" promoted, if not invented, by Edgard Varese in the fifties. It was virtually abandoned by composers with the advent of synthesizers in the early sixties ("Sound Artworks Clear and Simple" *Halifax Chronicle-Herald*, October 28, 1991).

His review indicates how little this music critic knows about *musique concrète*, not to mention soundwalk recording. In this summary, he does not mention the composer who invented the term, Pierre Schaeffer, or anyone who has worked in *musique concrète* since the early sixties. The genre sounds like an anachronism, as it tends to do in electroacoustic music textbooks as well (see Chapter 2). It is not surprising then, that Pedersen also does not delineate how soundscape composition is related to *musique*

concrète in its use of recorded sounds, or how it might be different in its exploration of sounds in their environmental context as well as, rather than only as sound objects.

Westerkamp describes how her soundwalking pieces work as radio art:

It is still relatively unusual to hear environmental sounds or soundscapes on the radio. This type of radiomaking presents the familiar as though artificial, through a loudspeaker, second hand, framed in space and time, and therefore highlighted. Daily life is thus presented from a new acoustic angle. Such radio can assist us in listening to our everyday lives, to who we are as individuals and as a society.

In some soundwalks I speak "live" from the location of the recording directly to the listener. My voice forms the link to the listener who is not physically present. I speak about the sounds or soundscapes that are audible but also about aspects extraneous to the recording such as the weather, time of day or night, the feel of the place, the architecture, how the environment looks. The voice transmits information about a place that would otherwise not be apparent from raw environmental recordings and assists in transporting the listener into each specific soundscape that is broadcast. It is also a constant reminder of the recordist's presence in the environment and of the fact that this presence creates a specific acoustic perspective for the listener — that this particular microphone, this particular recording presents only one truth about the environment. By doing so, it is intended to create an awareness or curiosity in each individual listener of a unique acoustic perspective. (Westerkamp, 1994: 90)

Kits Beach Soundwalk emerged out of Westerkamp's work as a radio artist, and has since been presented as a performance tape-vocal piece in concerts, and as a pre-recorded work on CD. Westerkamp uses her voice as a link to listeners, leading them from the beach soundscape into her dream world. She comments on the sounds to focus attention on their social meanings.

... [environmental sound] also has a social meaning ... That's really what keeps me in this area. The connection between the musicality of a sound and the social meaning of a sound. (Westerkamp, quoted in Young, 1984).

For Westerkamp, the connection between social meaning and musical meaning is important. This is one of the reasons that she likes to work with recognizable environmental sounds, that retain their original reference points. Westerkamp explores the musicality of sounds, pushing at the boundaries of what many will accept as music, inhabiting a marginal space in terms of style—like a barnacle inhabiting the joining of two elements, or as Minfe expresses it, perhaps acting as a translator between the listener and the soundscape: "her spoken voice takes you for the soundwalk personalising and focusing it on you with her and nature. A beautiful idea!" (51f, participation by letter)

Voice Characteristics and Narration

Eight listeners said that they found the voice peaceful or soothing, while six listeners described it as annoying or disruptive. P-Ron (22m, Queen's electroacoustic music) says "Very soothing. I would love to listen to this before sleeping." Cherry (22f, Waterloo composition class) comments "sound of narrator and birds soothing." Misanthrop (25m, University of Toronto grad colloquium) describes the piece as "Deana Troy's soliloquy on sound," a reference to the ship's counsellor on *Star Trek: The Next Generation* who is known for her empathic abilities and her adeptness at calming people, a comment that is somewhat tongue-in-cheek, as befits this respondent's chosen pseudonym.

Wim (20m, Queen's electroacoustic music) says "the soothing voice seems to take hold of your focus." Genesis (23f, individual listener, participation by letter) says: "I listen to her dialog and I react against it. I cannot be her, I cannot hear what she is hearing." These two quotes, resulting in quite different emotional reactions in the listeners, in which one reacts against the voice while the other continues to find it soothing, point to the most persistent critique made about this piece: that the vocal narrative takes hold of one's focus, seeming to restrict people's abilities to go on their own journey during this work. Many people feel restrained to following Westerkamp's path. At the same time, the listener who says "I cannot be her" earlier comments "I've never been to Vancouver! — Where's Terry David Mulligan?" Terry David Mulligan is a Much Music video jockey, and host of the *Much West* show, which is highly constructed and directed with little left to the imagination. In her question about where Mulligan is, this listener expresses a desire for a guide who leaves much less room for creative response than does Westerkamp in this piece. Perhaps this listener does not feel the same pressure to be Mulligan, but why? Is it because audio is "hot" and involving against television's "coolness," as Marshall McLuhan would say? Is it because she felt more familiarity with

the popular music focus of Mulligan's commentary? Is it because Westerkamp is a woman, and this listener felt more desire to identify, but could not? She does not say.

30 something (43f, Trent radio art day) articulates the frustration mentioned by several listeners, commenting "The voice is actually the dominant sound-thread. We have to filter it out in order to pay attention to the sound imagery she has set up." What is different in this listener's reaction is that she is able to filter the voice out, while others are not. Rick (22m, Trent Radio Art Day) says:

When I started listening to this piece, I created a mental image of what I was listening to. She didn't let me do this however, she created her own view of the sound, with everything she says the picture becomes more clear. We are her followers, and she leads us by the hand through different worlds.

Peter Hau (35m, Trent Radio Art day) perceives the voice differently depending on what sounds it is juxtaposed with: "Role of narrative, and constant set against Lows and Highs of environmental soundscape, is perceived differently; gratefully accepted in shaping (bad) city sounds, but a nuisance when interfering with "good" sounds." Another listener at the Trent Radio Art day says that s/he only listened to the voice as long as the imagery matched her own: "useful initially then I disregarded it when her imagery did not match mine" (29, Trent Radio Art day, no other information about identity). It is interesting that the only two listeners of all the respondents who mention filtering out or disregarding the narration are radio artists. Also, the sense of the narration being too explicit or too dominant is much stronger in this group than elsewhere. In other sessions, only a few listeners reacted strongly against the narration, whereas in this group almost everyone did. Perhaps this is because of radio artists' desire to create their own narratives, or because of their increased listening sophistication, because of which Westerkamp's commentary seemed unnecessary or even invasive.

In every listening session, the group would laugh at the point where Westerkamp announces "Luckily we have bandpass filters and equalizers. We can just go into the studio and get rid of the city." This humorous demystification of the studio process is one of the elements that makes this piece different from a documentary: it shows its own process so clearly, rather than creating the smooth and distant glossing of an objective stance. Jon (23m, Queen's electroacoustic composition) points out this subjectivity when he says "sense of humour, manipulation of sound levels relate to personal experience." Westerkamp is self-reflexive—as well as reporting on what she sees to supplement the listener's hearing, she also talks about her perception of sound related to what she sees and imagines. One listener had an angry reaction to this self-reflexivity:

The voice is lying. Sound is not natural. She is creating this world far from water and city. When she says that the view is spectacular/beautiful she is looking at a material possession in her studio. I cannot separate her narrative from the fact that she is creating the piece. Personally, I prefer not to hear the human voice. I receive no visual image in my mind's eye. She says so by referring to the studio instruments. This piece elicits anger, nervousness, and a desire to be somewhere else. (Mario Welsh, 22m, Queen's electroacoustic composition. This is the same listener who imagined an alien kidnapping in response to *Cricket Voice*.)

This listener seems to want a complete separation between natural and technological worlds. He hears Westerkamp's reference to studio instruments as a vindication of his anger at her supposed duplicity. Yet she is being very clear about what she is doing, playing with the boundaries between natural and constructed sound. She explains this approach in a recent talk:

Environmental sound is a type of language, a text. As well, the technology through which we transmit the sounds, has its own language, its own process. If we truly want to reveal meanings through recorded environmental sound and truly draw the listener inside these meanings, then we must transmit precise information and knowledge and demystify technologically hidden processes. When we have done something as simple as condensing the duration of a dawn chorus in order to fit it into a predetermined time frame on a CD, let's say that and how we have done it. Let's name the voices of the place, let's mention the weather for example or the season, the landscape, the social and natural context. (Westerkamp 1998: 8)

Westerkamp is refusing the role of the technical wizard, who magically whisks the listener off to an imaginary world. When she leads us into the studio, she tells us exactly

what she is doing and why. To radio artists and composers, who do this all the time, perhaps this is unnecessary, whereas to less experienced listeners it may open doors.

Several respondents point to the pedagogical importance of the piece. Eurom (22m, Queen's electroacoustic composition) says "almost an introduction to electroacoustics!" BJ (22f, Queen's University gender and music) says "Tells a story of what everyday life is like. Everyone's too busy to stop and take a moment to appreciate the beautiful sounds of nature." Augusta also mentions this sense of timelessness, of an ability to stop and pay attention to the small sounds: "also gives a sense of timelessness, re, living for the moment, a sense of total immersion into the soundscape and environment" (46, Queen's electroacoustic composition). Malaclypse the Younger connects his acceptance of the narration with his strong agreement with the message that he heard in it:

At first, I didn't like the voice-over. After a point started to emerge, I liked the message and so the narration was ok. The rumbling city in the background - very spooky and effective. Very important message. Have you ever wondered if there are primal panic reflexes which are constantly being triggered by urban life, without our consciously realizing it? I have. (21m, Waterloo composition)

The piece makes Jemma realize that we hear everyday sounds transformed in our dreams. Even though at first she describes the narration as too obvious, it articulates relationships to sound that she had not thought about. The relationships between words and sounds in the piece alter her perceptions of the sounds:

Some of what's said almost seems too obvious, but yet we wouldn't know how to put it into words. Uses words to change our perceptions of sounds, i.e. barnacle sounds to sizzling to sounds of a family. Interesting: presence of every-day sounds in our dreams! We incorporate our sound environment into our lives. (23f, Waterloo composition)

This piece, emerging from Westerkamp's *Soundwalking* show and her experience with the World Soundscape Project, has a more clearly articulated verbal message than others,

related to acoustic ecology. She wants to make people more aware of the sounds around them, then to lead people into the healing barnacle sounds, away from the constant distracting hum of the city, so that they can return refreshed as she does. Certainly with these listeners she has succeeded. They are thinking more about living in the moment, the presence of everyday sounds in their dreams, and the panic reflexes that may be brought on by traffic sounds.

Some listeners responded with ambivalence to the message. Cora (25f, Queen's University gender and music) says:

“the View is beautiful” No it’s not. This is the environment which I don’t know. I don’t know this space. It’s a foreign space. I belong in the city. I have the city. But I don’t have this environment. I dream nature. I often dream waves. Yet still it’s external to me. Yet it’s internal to me. My healing dreams include waves very often. A bird of ... black flying just above waves but without sound which is because it’s too powerful, and makes my ears shut. This sound in my dream always exists in me, yet is foreign to me. I live in a building where I don’t see fish, birds, waves. These exist in my dream. Inside of me. I don’t like this sound externalized.

Cora is clearly agitated by the piece, remembering her dreams yet not wanting to hear the sound of her dreams externalized (not even to herself, since her ears shut). She insists that she belongs in the city and the space is foreign to her while also internal to her—perhaps because Kits Beach is simultaneously city and waves, reality and dream, external and internal. She wants to keep her dreams secret, separate from her waking world, whereas Westerkamp is bringing the two together.

High-Frequency Sounds in the Dream Sequence

Several listeners had strong reactions to the high-frequency sounds. Two listeners described the sounds in the Mozart section as like glass prisms. Earlier in the piece, reactions to the high frequencies were more mundane or domestic. Cooil (30m, Queen's

electroacoustic composition) says "the barnacle sounds reminded me more of frying eggs giving more intense hot day feel." Four listeners in total referred to this sound as like frying eggs. Smitty the Rickety Old Man says "sounds like she's cookin' up some eggs," (19m, Queen's electroacoustic composition) situating Westerkamp in the kitchen.

One listener said that she normally finds high-frequency sounds irritating rather than healing, but they did not irritate her during this piece. Another had a stronger reaction: "ultra-high frequencies make me cringe; make my head spin" (Genesis, 23f, contact by mail). However, most listeners liked the high frequency sounds, describing them as delicate, stimulating, sparkling or magical. Stephen Pedersen says "there was a magic in those sounds. It came from our sense of mingled delight and astonishment that such delicacy goes on under our very, very sophisticated noses, and that there is something in them of an unthinkable ancient past, as if a time machine had suddenly deposited us in the middle of the paleozoic."

Some listeners linked the barnacles sounds with intimacy: "can hear intimate sounds of barnacles [feel like part of something special]" (Cherry, 22f, Waterloo composition class). Tricam (33m, University of Toronto graduate seminar) associates the entire dream section with intimacy: "when she cuts the city sounds the impression changes from grandeur to intimacy." Cooil (30m Queen's electroacoustic composition) associates Westerkamp's voice with an intimacy that is almost invasive: "the talking made me feel that I was spying on her or reading her diary." This comment indicates a degree of discomfort with intimacy, perceived as an invasion of privacy. This issue also arises with Westerkamp's *Moments of Laughter*, which is the subject of Chapter Eight.

Interestingly, there were very few comments on the content of Westerkamp's dream narration. Jon (22m, Waterloo composition) says "comparing bullets to semen.

Discharging, other sexual imagery" but this is the only comment on the remarkable sequence where Westerkamp describes a scene where a man pursues her with a gun, then links this directly to the work of Xenakis, saying that the bullets in the dream are like "tiny seductive semen," and also like the sounds of discharging charcoal in Xenakis's *Concret Ph II*.

Is Westerkamp's dream making a connection between the sublimation of male aggression (bullets that tinkle rather than blasting, transformed from forces of destruction to tiny seductive semen) and the type of electroacoustic music made by Xenakis? She tells me that she does not know exactly why this piece by Xenakis fascinates her so much, but that when she listens to it, she feels similar pulls of attraction and repulsion that she felt in that dream.

Places

The places mentioned by listeners to this piece were of a narrower range than with Westerkamp's other works. Once again, because of the narration, listeners seemed more likely to choose a place that was closely related to the place that Westerkamp was describing. There is one exception to this: at the beginning of the dream sequence, one listener hears the sound environment as "like a tropical rain forest" (Ella, 22f, Waterloo composition). Several people referred to being on a beach, or by the sea, without saying where. Portia (21f, Queen's electroacoustic composition) says "sitting at a boardwalk." Amelia (45f, Queen's gender and music class) writes "I can smell the Pacific ocean."

Only one listener describes a beach that is clearly far from the West Coast:

Somerville by where Greenwood Racetrack used to be you can hear the traffic below and the water, on deck at the pool with eyes shut.
-doesn't sound like there anymore. Once you use equalizers.
-I don't enjoy voice over sounds.

-tiny sounds. -manufactured not real to me.
-piece lost meaning to me . Now I only see composer's meanings from her narration. (Kitty, 23f, Queen's gender and music)

This listener is describing a place from memory, and her connection to that memory does not seem to be able to withstand the power of the vocal narrative.

Those who were familiar with Kitsilano compare the initial part with their memories of that place. Smitty the Ricketty Old Man is concerned with verisimilitude when he says "sounds pretty accurate for Kitsilano" (19m, Queen's electroacoustic composition).

Malaclypse the Younger (21m, Waterloo composition) says:

I've walked along Kits Beach early in the morning before - I never would've thought of listening to nature in that place. It looked like a suburb and felt like a golf course. Maybe it was the surreality of dawn which added to this.

The beach has even more meaning for residents of Vancouver, as Barry Truax¹³⁶ notes:

Kitsilano Beach is right in the heart of Vancouver, across from the West end, on English Bay, so this piece is precisely located in the local listener's mind. Its image is not that of the wild coastal areas, but the domestic familiarity of a popular local beach.

He describes the beach location precisely, close to the urban centre. For Vancouver residents, each local beach has a particular flavour or ambience, which connects the place to memories and events over years of experience, giving deeper meaning to the sound environment than would be heard by someone who had only visited once or twice.

By explicitly linking this piece in the CD liner notes with her *Soundwalking* show, Westerkamp associates it with the aims of that radio work:

¹³⁶ Truax attended one of my listening sessions, and agreed to be identified. I decided that because of his expertise in this area, it would be best to use his real name.

Soundwalking took Co-op Radio listeners into the soundscape of Vancouver and surroundings.... It was my first attempt to create a program that listened to the communities of Greater Vancouver without attempting to report about them. It brought community soundscapes into listeners' homes and simultaneously extended listeners' ears into the soundscape of the community. (Westerkamp 1994: 89-90)

Westerkamp describes *Kits Beach Soundwalk* as a compositional extension of this original idea. Rather than remaining with the original place, the work extends it into the world of the studio, and the world of dreams, as well as the worlds of the concert hall in performance and that of the CD. In its most fixed form, on the CD, it still speaks to listeners about acoustic ecology, and relationships between dream and reality, studio and field recording, subjectivity and sound environment. But at the same time, in some cases listeners were blocked in their appreciation of this piece by an inability to identify with the vocal narration, or an experience of it as disruptive. Is this because of listener expectations about what constitutes a concert piece, what will appear on CD? Is it because many people value music as an abstract form where they can discover their own imagery, and reject guided imagery? Is it because they are hearing a female voice that some female listeners feel a need to identify, and because it is in such a crystallized form that they are unable to? In order to answer these questions, it would be necessary to analyze a larger set of pieces that use vocal narration of this type, and these are few and far between. By choosing to put such a piece on a CD, Westerkamp raises these important and difficult issues.

The "Wet" Coast:¹³⁷ Related Work

Perhaps it is still to the original audience of the *Soundwalking* show, the Vancouver audience, that this work speaks most directly. David Kolber, a Simon Fraser Acoustic

¹³⁷ Many people who live in British Columbia refer to it as the "Wet" coast rather than the West coast, especially after a rainy spring.

Communication student working with composer Barry Truax, writes the following as an introduction to a paper about *Kits Beach Soundwalk*:

Looking out at the arteries of bridges and roads, with the honking of car horns and the screeching of tires, and in the foreground the humming swirl of a building's ventilation intake pipe, I want to run away. Even in our world of standby airline tickets and sensory deprivation tanks, how can one possibly hope to escape this moment-by-moment barrage of buzzers and sirens, of traffic belches and whining machinery, of lights and appliances humming a single, unending, unchanging, note. I find hope and insight in Hildegard Westerkamp's "Kits Beach Soundwalk." Through the piece, Westerkamp challenges the listeners to re-evaluate and to re-establish their place within the world around them. (Kolber 1997: 1)

Kolber's consciousness of the sound environment, revealed in his description of it, is a reminder of how Vancouver residents have been exposed to acoustic ecology as a discipline, to a far greater extent than in most other places. Since the 1970s, when the World Soundscape Project was established there, Truax, Westerkamp and others have worked to increase listeners' awareness of the sound environment. The *Soundwalking* show introduced listeners to the sound of recorded soundwalks, broadcast on radio. Westerkamp's performances have introduced many Vancouverites to performed soundwalks, and sound journals. Works released on CD like *A Walk Through the City* and *Talking Rain* also refer to Vancouver's sound environment, extending to a larger and more geographically removed audience.

In the listening session at the Western Front, I played these two pieces, as well as *Kits Beach Soundwalk*, as examples of works that refer to the Vancouver environment. I was particularly interested in discovering to what extent Vancouver listeners' responses might differ from others elsewhere.

A Walk Through the City was composed in 1981. Westerkamp describes it as:

an urban environmental composition based on Norbert Ruebsaat's poem of the same name. It takes the listener into a specific urban location—Vancouver's Skid Row area—with its sounds and languages....A continuous flux is created between the real and imaginary soundscapes, between recognizable and transformed places, between reality and composition.

The poem ... is spoken by the author and appears throughout the piece, symbolizing the human presence in the urban soundscape. Its voice interacts with, comments on, dramatizes, struggles with the sounds and other voices it encounters in the piece. (*Transformations* liner notes: 21)

Barry Truax indicates that although Ruebsaat intended the poem to refer to any city, the sound recordings locate it exactly in Vancouver:

Even though the 'city' in Norbert's poem is non-specific, it's inevitable for me to associate it with Vancouver, right from the start with the long seaplane crescendo and its characteristic phasing effect as the sound reflects off the mountains and the water of the inner harbour—a very Vancouver sound. The voices ... from the East end near the middle and at the end are also very specific to Vancouver once that context is established.

Truax then continues by describing the drama articulated in Ruebsaat's poem, its symbolic aspects that are not as specific to Vancouver:

The very dramatic poem—articulated in a wide range of styles and recording distances—expresses the conflict in the city between its glittering opulence and the thinly veiled violence of its darker side. This is symbolized by the extremes of the frequency ranges used: the throbbing motors, pulsating beat rhythms, the droning ambiences and the glittering high frequencies of the bus brakes, sirens and the ethereal voices derived from them. One of the most striking moments—my favourite—is when Norbert whispers the text surrounded by these high and low frequency components: the city both distantly ominous and visceral as it borders our [aural] skin.

Responses by other listeners often mention that the piece is located in Vancouver's Skid Row area, as Westerkamp reveals in the liner notes, but particular sounds are not mentioned in relation to this, and the authors quickly move to a discussion of its significance in relation to their own experience:

A Walk Through The City is a journey through Vancouver's Skid Row area. Unsettling in its content, it is none the less essential listening. A reminder that we have become disassociated from one another and that for those living on the outskirts, ... life is a constant struggle to survive and be. Westerkamp herself does not pass judgment but simply portrays what is happening. Norbert Ruebsaat reads his poem over this soundscape. (Review for *Power Spot*, a Sydney Australia radio program)

This reviewer quickly moves to a discussion of commonality, using the pronoun "we," in a similar way as another reviewer, Clive Robertson:

A Walk Through the City is in part, a social interpretation of Vancouver as it exists. We hear urban sound: traffic, carhorns, brake squeals, pinball machines, people's voices. We hear street alcoholics apologizing before the microphone; we hear drunken songs. In programme notes for the piece, Westerkamp writes of "perceptual shifts between acoustic reality and our own acoustic imagination." ...The voice in comparison with the voices on the street is theatrical when it screams: "Somewhere a man is carving himself to death, for food." (1982: 349)

Robertson compares the voices on the street with the theatricality of the poem reading, continuing later in the article by asking: "if an urban environment already includes peoples' voices and conversation is there any clarity in further loading the bases with 'external human components'?" (1982: 349). His sentiments are echoed by a Vancouver resident in the Western Front listening session, but in the latter case, this listener's comparison is more strongly expressed because of his experience as a resident:

poetry and psychologized form of music/soundscape
doesn't need stylized and psychological poetry
this is alienating - doesn't feel like our city
recordings of citizens is much richer than narrator - let them tell their own
story
beautiful music coming from airplanes - something we've all heard
musically in life
she achieves mystery and sensuality in the commonplace
(Jo Sharpe, 22m, Western Front)

Note that this listener refers to the "beautiful music coming from airplanes," the seaplanes that Truax identifies as indicators of Vancouver's location. When Jo finds the poetry alienating, he dissociates it from his experience of "our city." In his description of *Kits Beach Soundwalk*, Jo says that Westerkamp presents "sound as more than phenomena, as the listener's own," through her association of certain sounds with the intimacy of dreams. His comments about *A Walk Through the City* reveal that alienation and dissociation occur when sounds no longer accord with the listener's own experience.

While Western listeners refer to urban sounds in *A Walk Through the City* as similar to their own experiences in urban centres, a listener from India points out the differences between Canadian and Indian soundscapes:

A Walk Through the City—combinations of sounds. A feeling of large spaces and loneliness dwells in all these compositions [she also mentions *Fantasie for Horns* and *Beneath the Forest Floor*] as compared to her Indian soundscapes—with so much more happening in a given time and space with natural acoustical sounds as compared with the high frequency mechanical sounds in the West. (Minfe, 51f, contact by letter)

Listeners' responses are shaped by their previous experiences and the soundscape that they know. While Vancouver residents may hear specific sounds that locate the recording exactly in their neighbourhood (particularly if they are listening as carefully as Truax), Western listeners hear sounds as universally urban, and a listener from India hears what she hears as characterizing Western urbanity (high frequency mechanical sounds) in contrast to the soundscape of urban India (in which she hears more density of acoustic sounds and a busy human environment that is not lonely).

Talking Rain (1997) is a more recent composition based on sounds recorded in Vancouver and other parts of B.C. Once again, the comments recorded by Truax reveal its significance to local listeners:

Talking Rain invokes the West coast listener's immediate resonance to the varied sounds of rain in all of their infinite nuances. By manipulating small samples of rain sounds, she is able to draw us into the fine rhythmic and textural detail of an otherwise all too familiar sound. The accompanying forest birds ... foghorn and the frogs also conjure of the natural coastal soundscape - contrasted in the later section with the urban soundscape and its rain-washed streets whose acoustic ecology is more questionable and whose textures are more broad-band. Rainforest and urban jungle in high contrast! Unlike the ominous character of the city in the earlier piece [*A Walk...*] or the more distant background of *Kits Beach*, this city soundscape is more 'ordinary' and less threatening [we even get churchbells!] and rather readily dissolves back into a wave wash that connects us again (note the final footsteps)—as Vancouverites always feel they are—to the natural environment. An interesting contrast to *Gently Penetrating* where the personal respite from the inescapable chaos of the city [in India] is symbolized by the simultaneous metallic percussion sounds with their spiritual connotations of inner peace.

Truax raises a number of important issues in this response. He points out the familiarity to West-coasters of not only the rain (hence my earlier pun about the "Wet" coast, a description I heard often in Vancouver), but also the presence of a foghorn as well as West coast forest birds. His comments about the progression from the urban sounds as ominous, to distant, and finally ordinary are also interesting to Westerkamp, who was not aware of this progression in her work over the period 1981 to 1997, from youthful protest and alienation to more subtle juxtapositions and a sense of acceptance. Finally, Truax contrasts this piece with *Gently Penetrating*, based on an Indian soundscape, in which he hears metallic percussion sounds (perhaps the slowed bicycle bell sounds) as connoting inner peace in a busy urban environment, and contrasts this with the sounds of footsteps in *Talking Rain*, which connotes Vancouverites' connection with the environment. Certainly there is not the same sense of loneliness in *Talking Rain* that Minfe, the Indian

listener, heard in *A Walk Through the City*. The urban sounds that we hear are individual cars passing close by on rain-soaked streets, not the distant roar of traffic or the mournful cry of slowed-down screeching truck brakes.

Jo Sharpe confirms Truax' description of rain as a quintessential Vancouver sound, as well as his description of the city as normal and unthreatening:

I've had a love affair with rain all my life.
It's the voice of the west coast.
Imagery moves from drenching rain, to tiny leak, to bath time [childhood, comfort] to forest, city, lakes, tin roofs, cement, plastic
Glad to hear the city eventually—humanity within the environment and humanity as environment
Circular form connotes a “zooming in” and ‘zooming out’ effect
(22m, Western Front)

This response also underlines earlier commentary by listeners to *Kits Beach Soundwalk*, as well as some of the other pieces that I analyze, in which they hear how Westerkamp invokes a sense of zooming in and out, moving from grandeur to intimacy, drenching rain to tiny leak, bath-time to forest.

Both identity with rain and a sense of zooming in and out are noted as important parts of Westerkamp's work in an online review of *Talking Rain* by Mark Parlett (Smartt.com):

Talking Rain, by Hildegard Westerkamp is clearly working with a force of nature that is our identity here in Lalaland, water ... water and our proximity to it, is in our bones in Vancouver ... Like looking at many photographs of the same shot with each shot having a different depth of field, Westerkamp deftly crafts together water in all its manifestations into these intimate sonic polaroids that flow in and out of each other.

Parlett also notes the importance of Westerkamp's limited manipulation of sounds to his appreciation of the work:

Westerkamp stays out of the way in terms of the manipulation of the sounds. If there was any processing or treatments to the tape they were imperceptible and all but invisible. I had one of those sublime moments where upon deeper examination I realized that the composer may have done a little processing on some very tiny fast dripping droplets of water, and then I realized that I have encountered a sound like that in my life, a processed computer like sound, sitting beside a small creek in the spring when it's beginning to thaw and small drops of water are dripping under the ice downwards and it's almost metallic, and then I realized it doesn't matter either way.... Hildegard Westerkamp's work at its best brings us closer to the notion that we are the sounds that we hear...the "just listening" state...the dissolution of the "me listening to that " construct, this is the essence of *Talking Rain*.

Parlett mentions a sense of identity with sound. This is somewhat like Jo Sharpe's earlier comment that Westerkamp works with sound as not just phenomena, but as the listener's own, focusing on the relationship between sounds heard and the subjectivities who hear them. Unlike Jo, Parlett experiences this not as a sense of ownership of sound, but as a dissolution of boundaries between self and soundscape.

Westerkamp herself thinks of her work as being at once inside and outside of the soundscape, both recognizing that boundaries between self and subjectivity exist, and attempting to create the kind of immersive listening that temporarily dissolves those boundaries. She amplifies and focuses listening using a microphone.

The microphone is a seductive tool: it can offer a fresh ear to both recordist and listener; it can be an access to a foreign place as well as an ear-opener to the all-too-familiar, or a way to capture and speak back to the unbearable. (Westerkamp 1998: 6)

The sense of immersion offered by the microphone is contradictory, bringing the recordist further inside the soundscape while it also keeps her outside.

... the whole experience feels to the recordist as if he or she is more intensely inside the soundscape, because the sound is closer to the ear and usually amplified. But in fact, the recordist is separated from the original direct aural contact with the soundscape, especially from the spatial realities of closeness and distance, from the ability to localize sound correctly.

In that contradiction, however, lies the seduction of the microphone: it feels like access, like closer contact, but it is in fact a separation, a schizophrenic situation. Soundscape recordists exist in their own sound bubble and hear the place in which they are, completely differently from everyone else in the same place. They are like foreigners or outsiders, no matter whether the place is their home or foreign territory. (Westerkamp 1998: 7)

Kits Beach Soundwalk embodies this sense of being inside and outside the soundscape at once. Sounds enter Westerkamp's most intimate dreams from the everyday experience of walking the beach. She listens to the recording, immediately beginning to play with levels, to create an imaginary space far from the city, leading the listener through a world of high frequencies. She is at once inside the beach soundscape and reporting on it, inside the composition and relating how it is made.

Re-learning to hear and decipher the soundscape like a new language; treading carefully with curiosity and openness, aware that as recordists we remain outsiders; always attempting to create a type of naked, open ear; these may be ways to continue for the composer who wants to speak from inside the soundscape and at the same time transmit a genuine ecological consciousness. (Westerkamp 1998: 10)

Chapter Seven

Cricket Voice and the Power of Wilderness

I am no longer interested in making music in the conventional sense; I am interested in addressing cultural and social concerns in the musical idiom. 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 an ecologist of sound. (Westerkamp 1985: 8)

So begins Hildegard Westerkamp's 1985 article about her experiences in the Zone of Silence in Mexico; experiences which were eventually to lead to the composition of *Cricket Voice* (1987). This strong statement about her approach to music and sound ecology is a result of the influence this wilderness experience had on her compositional approach as well as her philosophy about daily living.

Cricket Voice and the *Zone of Silence Story* are not Westerkamp's first compositions based on wilderness sounds. *Cordillera* (1980) is Westerkamp's compositional working of Norbert Ruebsaat's long poem of the same name, a work based on sounds from mountainous regions in western Canada.

Cordillera means a ridge or chain of mountains. It is also used generically to describe the continuous range stretching from Tierra Del Fuego to Alaska. The poem describes an ascent and movement through the high country. It's composed of seventeen shorter poems of "snapshots" of specific locations, and these are each given their own acoustic shape as the composition proceeds. (HW: *Inside the Soundscape* #3 liner notes)

The difference with the Zone of Silence is that here, the genesis of the compositional work is not with Ruebsaat, through a completed poem, but rather with an experience that Westerkamp and Ruebsaat share, along with several other artists and their daughter, Sonja.

Artists in the Zone of Silence

The Zone is a mountain desert area in the northern part of Durango State, in Mexico. It is called the Zone of Silence not because of its silence (although it is very quiet) but rather because of its unusual magnetic qualities. Compasses, clocks and radios do not work in some regions of the area as a result of magnetic peculiarities, and for the same reason, it attracts thousands of meteorites. It also has dramatic and unpredictable weather. Because of its unusual nature, it has been recognized by shamans as a spiritual place, and contains many ceremonial sites both ancient and contemporary. It has also been researched by scientists from Mexico and the United States, including NASA (Westerkamp 1985: 8).

But until December 1984, the Zone had not been investigated by a group of artists. Domingo Cisneros, a Mexican Indian artist on staff at the *Direccion de Turismo y Cinematografia* in Durango, invited fourteen other artists to join him for the month of December, camping in the Zone: Richard Martel, visual artist; Sylvie Panet-Raymond, choreographer/dancer; Lise Labrie, sculptor; Jeanne McDonald Poirier, poet; all from Québec. Wanda Campbell, writer, from the United States. Benjamin Medel, filmmaker; Francisco Perez Garcia, visual artist and poet; Gloria Cano, historian; Carlos Mahul, filmmaker; all from Mexico, along with Ruebsaat and Westerkamp from British Columbia. Two children also took part: Ayesha Cisneros and Sonja Ruebsaat.

The landscape and environment were entirely foreign to almost all of us. We camped under minimal living conditions. We didn't know each other, we didn't speak the same languages. What brought us together was a belief in art, and the notion that with artistic techniques you could discover and give voice to an environment that at first seemed totally hostile. (Westerkamp 1985: 8)

Westerkamp notes that one of the most unexpected experiences the artists had during this time was their intense memories of their childhoods, and how they used to explore place, especially unknown places such as holiday destinations, as children. She relates how as a child, the initial arrival at a place was often a let-down. But a child's genius is to find the

magic in a place, to find that it is not just a normal mountain, a normal lake, but something quite unique.

I feel quite similar here now, because, of course, I had that same let-down when we first arrived. The colours here seem very dull, you can't really see them at first when you come from a place like British Columbia. Then you slowly find your way into the place, you begin to find its colours and its sounds, and that is exciting. This environment holds a lot of secrets in that respect. You need to work a little bit harder, to do a little more listening, a little bit more looking to get to know it. (Westerkamp 1985: 9)

She also finds it important to get beyond what people have said about the place beforehand: to discover the place for herself, to make personal contact.

So it was really important for me to walk off on my own and rediscover these things that had already become clichés in my mind. For example, the meteorites didn't excite me at all when I saw them strewn all over the ground. So what? I had to really step back and make contact with, imagine the immenseness of a meteorite shower. It was as if the expectations had almost dulled my perception. (Westerkamp 1985: 9)

Even after this period of personal contact, Westerkamp still feels that works of art, especially when they are concerned with foreign places, evolve slowly by necessity. This evolution takes place through a long process of getting to know the place, its influence on her sonic perception and knowledge, the recordings made in the place, the particular sonic materials she chooses to work with. This is the reason that *Cricket Voice* was only composed several years later.

Zone of Silence Story

Initially, Westerkamp composed *Zone of Silence Story*, an acoustic environment for a gallery installation at the Museum of Quebec in Quebec City, December 1985 to January 1986. This composition is also included on the cassette *Inside the Soundscape #3*.

Because the Zone is so quiet, one of the features of the artists' experience there is the emergence of the desire to make sounds. The first sound on the cassette is recorded clapping and foot stomping inside an abandoned desert water reservoir. Westerkamp

notes that the clarity of this sound derives from the silence that surrounds the reservoir. This is followed by the sounds of a group arriving at campsite, including voices speaking Spanish, French and English, and the sounds of crickets' night song. "Rockstories" records a game played by Norbert Ruebsaat with the two children, Sonja (seven years old) and Ayesha (nine years), in which they tell stories about rocks that they pick up, and make sounds with the rocks.

"Sonic Meditations and Star Language"¹³⁸ includes an excerpt of a longer sonic meditation that was performed at camp at night-time. The excerpt focuses on the word "silence" spoken in three languages. A poem series by Ruebsaat called *Star Language* is juxtaposed with the song of a single cricket with pitch modulation as a result of tape speed changes. This recording of a solo cricket song is later to form the basis of the piece *Cricket Voice*.

In "The Truth is Acoustic," Westerkamp makes sounds from cacti. She discovers that by plucking their spines, rubbing and caressing their surfaces, and pounding on them with an improvised drumstick, she can produce sounds that suggest the interior spaces of the plants through different resonances. These sounds are recorded very close up and later appear in *Cricket Voice* as well.

Ruebsaat watched Westerkamp do these recordings. Then after hearing the recordings, he wrote a poem:

Imagine the world
trying to get inside this plant.

¹³⁸ Both the first phrase in the title of this piece, *Sonic Meditations*, and the exploration of the resonances of an abandoned water reservoir, suggest a connection with the work of Pauline Oliveros.

Knocking on it
as one would on a sealed chamber.

The spines snarl angrily
like dogs chained to a doorpost.

The meat resists
the hand or the knife,
and when you finally enter
you're already lost in infinity.

In tasture or text,
I mean texture or taste,
in *pulque*—

it speaks
back at you hollowly
as if it were its own sound.
Already a magical potion:
maguey, ocotillo, cardenche,
mezcal, sotol—
the infinite ear.

This process of discovery is exciting to Westerkamp. It is an intimate process, producing sounds that speak of hidden interiors, and reveals sonic life inside plants that may appear inert to the eye.

I am excited by the fact that I found incredibly resonant sounds in dried up palm tree leaves, or in hostile looking cacti. It is exciting to me to be able to bring that back to the city. Here is a plant that looks absolutely dead from the outside and then you put a microphone close to that plant and you touch it, knock on it, "play" on it, and you hear the life inside it. It is as if you hear an acoustic representation of the secrets that this environment holds. (Westerkamp 1985: 9)

As she discovers the plants as instruments, playing them actively, Westerkamp feels as if she is tracing the sound of musical instruments back to their origins in local materials, part of the landscape.

You suddenly perceive a continuity between wilderness and culture, life and artistic production. And that continuity is created through an ecological relationship between a place and the people inhabiting it. (Westerkamp 1985: 9)

Desert "Nightlife"

Westerkamp was disturbed by times in which the group did not exhibit an ecological relationship to the environment, particularly with regards to sound.

I found that, acoustically, there was a lot of imposition onto the environment by members of the group, especially at night by the fire when we were all together. The nights are very fragile times here, with a very strong sky of stars, very bright stars. They are very spectacular nights, with an enormous silence, only crickets singing. But they became disrupted regularly by the same kind of voice, the drunken voice, the noisy voice. I experienced this voice as an urban kind of imposition, and an ecological interaction between environment and human being was not possible under those circumstances. The night didn't have a chance. (Westerkamp 1985: 8)

Westerkamp hears this as an imposition because the group in their noisiness could not hear the quieter sounds of the night, and denied themselves the possibility of finding a place within the existing night soundscape. Westerkamp notes that an ecological relationship can only develop over time, and that given the culture shock of the situation, perhaps it is unrealistic to expect a more balanced voice to emerge over a few weeks. Westerkamp exorcised the spirit of the drunken voice by creating a sound sculpture, in which the sound source was desert wind blowing on emptied beer and tequila bottles. She had heard that sound every day in the camp, as the wind blew over bottles that had been emptied the night before.

She tuned the bottles, using a small amount of water in each one, then placed them facing the south-eastern wind, slanted into the wind and supported by rocks.

As I was piling up the rocks ... the shape of a turtle emerged. The whole process took me four days. And while I was carrying rocks, the wind played its music on the bottles. The sound was surprisingly quiet, but it became a soothing, slightly haunting accompaniment to my work. The longer I worked the more clearly I could hear the "music." I internalized it to such an extent that I could hear it in my inner ear long after I had left the place. (Westerkamp, "Listening to the Zone of Silence," unpublished paper)

The soundsculpture imposed a certain kind of listening. It was so quiet that initially it could not be heard. In order to hear it, the listener had to remain close, without talking, for a long time.

The soundsculpture had become a piece about the experience of time, the slowing down of time, time coming almost to a standstill. It had become the locus for "a time and place to wait and a time and place to do nothing." (Westerkamp, *ibid.*)

Westerkamp created a sculpture that transformed the materials of the drunken voice into the materials of a quieter, more balanced voice, still of human origin, but more integrated with the sounds of the desert, creating in the process her own spiritual site. She imagines that as time passes, the voices of the sculpture will change as the water evaporates. She fears that it will not remain intact, and will become garbage, believes that perhaps she should have dismantled it. Ironically, she had made it in one place where she could not record its quiet sound, because of the constant presence of wind. The voice of this sculpture could only stay with her in memory.

The desert certainly can do without even the faintest memory of any urban visitor and—I suspect—so can the people who live in the desert. But we, the urban visitors, cannot do without the experience of the desert, we need to hear the desert voices, wilderness voices. It is, I feel, the political and social responsibility of the composer to make "voices" audible that—in an urban, capitalist society at least—have become inaudible. (Westerkamp, *ibid.*)

Her experiences in the Zone of Silence affected the composition of *Cricket Voice*, several years later. In some cases this is through the use of sounds made by the artists during their stay, and in other cases it is through the evocation of emotions and images that Westerkamp discusses about this experience. *Cricket Voice* makes the voices of wilderness, of desert, audible to the urban listener. It also makes audible the urban person's experience of desert: its initial seeming hostility and alien nature, its haunting qualities, the experience of immense space. These characteristics of the piece emerge through a detailed analysis of the musical structure of the piece, as well as through images and commentary that arise through listeners' reactions.

Musical Structure

Cricket Voice is a tape piece, 10:55 in length. Its primary sound source is the night song of a single cricket, recorded close-up. The first two minutes of the piece are composed almost entirely of sounds derived from this source, accompanied only by the sound of wind (unprocessed), which is the first sound heard. During this initial section, the cricket sound is slowed down by various amounts to create several pitches. This section is characterized by high vertical density, as a result of the various pitches being heard simultaneously, as well as rhythmic complexity as the sounds at various tape speeds, layered upon one another, produce repetition of the original rhythm of the cricket sound stretched to different lengths, creating a sensation of polyrhythmic cycles. At 49 seconds, the original cricket sound is introduced, immediately perceived by its difference of timbre and tempo from the slowed down versions.

At 1:48, a voice-like sound which was created by processing a mix of slowed-down cricket sounds to emphasize and harmonize the pitch, is introduced. This sound stands out because of its timbral difference and less rhythmic character than sounds of the previous section. Another timbral difference is perceived at 1:52, when the sounds of whipping are introduced (branches moved through the air like whips). This sound is characterized by its rhythmic regularity, in contrast to the more irregular processed cricket sounds. At the same time, the slowed down cricket sounds fade slightly, receding to the background of the piece. Shortly thereafter, at 2:29, sped up percussive sounds made from knocking on the leaves of a palm tree are introduced. At 2:40, a loop from the same source is introduced. These sounds are related to the whipping sounds in that the strong beat of each rhythmic cycle is at a similar rate (around sixty beats per minute), but their timbral difference provides contrast. The loop is panned constantly from its introduction to the end of the section, a period of almost three minutes, creating a sense of constant, restless movement over the slow voice and slowed cricket sounds. The

period from 1:48 to 5:20 is characterized by increased timbral diversity, and decreased rhythmic complexity with increased contrast in tempo.

At 5:21, the sound of Westerkamp knocking on the Maguey cactus is introduced. This irregular, fast rhythm with quick, close pitch changes has an intimate quality. The focus on pitch is intensified at 6:00 with the introduction of a loop of a particularly melodic section which rises and falls, playing the Nopal cactus leaves and spikes. Perhaps the most significant change in this section is that although the cricket sound continues throughout, the slowed down cricket sound (which Westerkamp identifies as a heartbeat) is not present at all. For that reason, the perceived tempo of this section is faster than anywhere else.

At 6:44, the slowed down cricket sound returns, shifting perceptual focus to its rhythm. Shortly after this, at around 7:00, a very low frequency sound is perceived (Westerkamp notes in the score that she introduces this at 6:23, but I did not hear it until around 7:00), which shifts focus to the pitch range, which at this point is very wide, from the very low frequency sound just mentioned to the high unprocessed cricket sounds. This wide pitch range is to be present until the end of the piece, giving a sensation of opening out into a large space. This sense of opening out is accentuated by the slow tempo of timbral change in the low frequency drone and slowed-down cricket sounds, creating a sensation of suspended time. In this section, the percussive cactus sounds associated with the previous part are still present, but recede into the background as they decrease in amplitude.

At 8:46, the sounds of clapping and stomping are introduced. Again, this sound attracts attention because of several differences from the previous section: the percussive and fairly regular claps have the resonance of a large enclosed space (they were recorded in

an abandoned water reservoir), and are accompanied by vocal sounds that are the first sounds that could clearly be identified as human voices. This sound is foregrounded until around 10:00, when it is gradually faded out. The low frequency drone continues, and at 9:46, the sound of playing on palm tree leaves re-appears briefly. The unaltered cricket sound is fairly constant through this section, disappearing for a few seconds at a time, then re-appearing. For the last ten seconds of the piece, all other sounds except the cricket have faded out: as Westerkamp says, "the cricket has the last word."

Listener Responses

I had a very strong initial response to this work: it was *Cricket Voice* that I initially heard on the radio several years ago, the first work of Westerkamp's that I had heard. It impressed me with its simultaneous sense of space and intimacy, with its evocation of vast and intimate landscapes, and by the simple fact that the cricket sound was recognizable: it was the first electroacoustic piece that I had heard which used a recognizable sound throughout almost the whole piece. Although at the time I did not know how Westerkamp had constructed it, I had the initial impression that all of the other sounds were somehow related to this recognizable cricket sound. This excited me, and galvanized me: I knew that I wanted to work in this way myself.

Listener responses from other people within my research sample fell along three lines: musical structure, emotional responses and images evoked. Most people who commented on musical structure said little in the other two areas, while images and emotions seemed often to be linked. Several people wrote about the musical structure of this piece. Many were brief comments, while a few attempted to map out a more detailed structure.

Commentary on Musical Structure

In cases where the commentary on musical structure was brief, listeners tended to focus on one aspect of the structure that had seemed most important to them. Three out of the forty listeners who responded to this piece referred to it as "minimalist." One person also made a connection to the work of Steve Reich. Joan Peyser characterizes the music of minimalist composers as static: "minimalists ... reject harmony, rhythm and form in favor of the creation of a static, trancelike state" (1971: viii). I prefer to define it more positively: minimalist music focuses the act of composition and of listening in some way by limiting materials or process.¹³⁹ In the case of *Cricket Voice*, the limit is on materials: the majority of the sounds heard in this piece are made from the recording of the solo cricket sound. All of the sounds used in the piece originated in recordings made at the same location, in the Zone of Silence.

One listener hears the minimalism as an intensification of a heard contrast between mechanical and natural sounds: "I hear sharp contrasts of sounds - the mechanical with natural sound intensified by minimalistic effects in the background" (Minfe, India, 51f, has taken a soundscape workshop). Although Westerkamp is not contrasting mechanical with natural sounds — all of her sound sources are acoustic, there are no electronic sources — this listener may be hearing the difference between unprocessed and processed sounds. I have remarked elsewhere (in the chapter on epistemology and composition) how Westerkamp considers how much to process a sound, not wanting to obliterate it through processing.¹⁴⁰ This is a tension which manifests itself in her work, heard by this listener.

¹³⁹ This is similar to Schwartz and Godfrey's definition: "For our purposes, we define minimalism as music for which materials, or their working out, are deliberately limited." (1993: 316)

¹⁴⁰ "I do feel that sounds have their own integrity and feel that they need to be treated with a great deal of care. Why would I slow down the cricket's voice but not my daughter's? If the cricket had come from my own garden, had a name and would talk to me every day, would I still be able to slow it down? Would I need to? It did take me two years to dare to compose with that cricket's recording, as it had been such a magical moment of recording, such a gift. I could not just 'manipulate' it. It had to be a new sonic discovery journey to retain the level of magic for me. And I remember a

Another listener finds the selection of sounds arbitrary, not noticing any relationship between them: "little coherence from one sound to another - it sounds like he [sic] arbitrarily picked a sound to use - little flow" (Smitty the Rickety Old Man, 19m, Queen's electroacoustic music class).

Other listeners comment on the slow tempo and gradual transitions of the piece as the most significant: "gradual transitions" (Augusta, 46f, Queen's electroacoustic music). "Everything a gradual metamorphosis, strands coming to the fore and retreating again - nothing [or very little!] abrupt" (Eurom, 22m, Queen's electroacoustic composition). "Useful as abstract 'wall-paper' music, rather than direct experience, since themes develop so slowly" (Ladybug, 33m, Queen's electroacoustic music). "Soothing, repetitive cycles which tend to promote more relaxed breathing, gradual progression from section to section" (Tricam, 33m, University of Toronto Graduate colloquium). "No sense of build up—sense of monotony/stability seems to pervade the work, with frequent oscillations being the only form of harmonic difference. It also reminds one of industrial art forms and music—one theatre production I saw at the Tramway theatre in Glasgow utilized a similar musical style which was played on a series of mechanical and industrial instruments (cars, tires, scaffolding). It reminds me of Steve Reich and Minimalist composition (Fredd, 23m, Queen's electroacoustic composition).

These latter comments seem somewhat similar to Peyser's characterization of minimalist music as static and trance-like. The comment by Ladybug that because themes develop slowly, the music becomes like wallpaper, may be a rejection of the state of mind that

moment at which I said 'Stop.' The journey was beginning to turn into electronic experimentation and the cricket was being obliterated. Same experience with the raven in *Beneath the Forest Floor*. I tried to make it into a regularly beating drum...it simply wouldn't let me. So I returned to the shape of the original full call, slowed that down and received from it a drum-like sound. It took a whole day to fly off into electronicland and return to the raven call" (Westerkamp, personal communication, March 26, 1995).

Westerkamp is attempting to create. In her description of the turtle soundsculpture, quoted earlier in this chapter, Westerkamp refers to it as a piece about "the experience of time, the slowing down of time, time coming almost to a standstill. It had become the locus for 'a time and place to wait and a time and place to do nothing.'" Ladybug's description of this slow-moving state as like abstract wallpaper rather than direct experience is similar to Peyser's description of minimalist music as rejecting harmony and rhythm: both are assuming that in very slow movement, nothing is happening, there is no direct musical experience. Wallpaper has patterns, as minimalist music does: but in wallpaper, the patterns repeat exactly, without change. However, I would argue that one's perception of change at a micro level can be enhanced in pieces such as these. In Westerkamp's music, as in Steve Reich's, I become much more aware of rhythmic and harmonic intricacy within small repeated gestures than is possible in faster moving pieces. The meditative tempo of *Cricket Voice* does not preclude harmony, rhythm, or form, just as Reich's *Come Out* ¹⁴¹ does not preclude these musical parameters. Both pieces require a different approach to harmony, rhythm, and form based on a willingness to listen to each moment of the piece in terms of these same musical parameters. Perhaps in listeners who are more accustomed to harmonic forms that are mathematically based or derived from song-verse structures, the forms, harmonies and rhythms of minimalist music are at times imperceptible.

Some listeners commented in more detail about the musical structure, but without referring to particular sections in the piece. For instance, a listener at the Trent Radio Art

¹⁴¹ "*Come Out* is composed of a single [vocal] loop recorded on both channels. First the loop is in unison with itself. As it begins to go out of phase a slowly increasing reverberation is heard. This gradually passes into a canon or round for two voices, then four voices and finally eight. By using recorded speech as a source of electronic or tape music, speech-melody and meaning are presented as they naturally occur. By not altering its pitch or timbre, one keeps the original emotional power that speech has while intensifying its melody *and* meaning through repetition and rhythm." (Liner notes to *Steve Reich: Early Works*. New York: Elektra/Nonesuch, 1987).

day who had previously taken a soundscape workshop commented on many aspects of the musical structure, with a particular focus on the rhythm of the piece:

- strong spatial sense
 - Initial cricket sound becomes diffused into a man-nature sensibility
 - “heartbeat” rhythm *en egale* becomes backgrounded behind dryer timbres in faster rhythmic pulses
 - the higher the pitch the faster the rhythmic oscillation
 - restricted “attack” sounds palette almost amounts to mnemonics for rhythm
- (30 something, 34 f)

This listener uses the term 'man-nature sensibility' without making it clear whether this is perceived as a contrast or a continuity. Unfortunately, nothing in the rest of the commentary makes this more clear. However, it is clear that to this listener, the piece is about a person's experience of the desert, rather than an uninhabited wilderness. It is interesting that, like Westerkamp, this listener refers to the slowed-down cricket sounds as being like a heartbeat, perhaps because of the tempo, which at around 80 bpm is similar to the rhythm of a relatively relaxed heartbeat. Also, the rhythmic pulse, with a stronger beat followed by a weaker one, is similar to the sound of a heart. This listener notes that the restricted number of different attacks or sound onset types focuses increased attention on the rhythms of the piece.

Another listener (Melody) comments on the musical structure of the piece. While she mentions timbral and rhythmic aspects, she focuses on extremes of pitch and the contrapuntal relationship of related sounds at different frequencies:

- very intense
 - texturally very dense
 - building, gradual changes, introductions, subtractions, transitions
 - some live audio? wind, cricket, obviously altered somewhat
 - rhythmic, also a sense of continuity created through this aspect
- covers most frequency ranges in a way that I find pleasing [extremes]

seems as if there is a kind of counterpoint between the mid-range frequencies and the high range frequencies [cricket vs. percussive sound etc]

nice use of dynamics

almost a melodic effect with the drone frequency and higher frequency pitches

sort of like Indian music—extended improvisation on a raga/tala (Melody, 20 f)

Her description of the relationship between the low frequency drone and higher frequency pitches as being "like Indian music" is interesting in light of Westerkamp's increasing fascination with Indian culture in recent years.

Three listeners mapped out a sectional form for the piece. Dr. Strangelove (22m, Queen's electroacoustic composition) marks five sections:

Portion near beginning made me feel like I was in a swampy/marshy area [pitch-shifted cricket sound?]

general feeling in beginning with wind noises - serenity, isolation

4:00 a bit more tense, suspenseful, even agitated feeling in me

kind of thing I would like to hear in warped movies

5:20 monstrous sounding

5:40 sort of jungly, outdoorsy feeling, very natural and WILD

overall feel: nocturnal, haunting

8:46 nice groove with rhythm stuff, aboriginal sounding (?)

At 4:00, when he notes becoming agitated, Westerkamp is using a lot of panning with a looped rhythm, creating a restless motion in the piece. The part that is marked as "monstrous sounding" is the section where Westerkamp strokes various kinds of cactus. This is the part that I marked as having sounds of inner resonances, creating a feeling of intimacy.

P-Ron (22m, Queen's electroacoustic composition) describes four sections:

A: I enjoyed the use of sustained, rhythmic pulses
dynamics were very well used

[place] I felt like I was observing a cricket in a field of tall grass with wind blowing

B: I found the transition a little too abrupt; disappointed because there was such a nice initial build up
cricket sounds very well placed/positioned
—almost had a night atmosphere

C: again, transition was abrupt
definitely more of a synthetic feel [processing of cricket sounds was obvious]
low drone [didjeridoo-type sound was very pleasing]
—a nice contrast to the initial drones

D: faster rhythm section
—almost seemed out of place [without visual cues]
ending could [unfinished]

It is difficult to exactly place P-Ron's section beginnings in relation to my own, based on the information he gives; however, there are some clues. His Section C would probably begin around the time that the low frequency sound is heard (7:00). Because this low drone is initially accompanied by the cricket sound slowed to various different pitches, this would account for the more "synthetic feel" that he mentions, since there is more processing. The faster rhythm section that seems out of place to him could be the introduction of clapping and stomping, perhaps seeming out of place because these are so clearly human-produced sounds in a sound world defined by the cricket's voice. It is interesting that P-Ron describes the transitions as abrupt, a stance opposite to other listeners' descriptions of this piece as concerned with gradual transitions. His statement that the processing of cricket sounds is obvious indicates that he has experience working with this type of processing. Perhaps this experience would make him more aware of micro-level timbral, harmonic and rhythmic changes, so that transitions that seem gradual to others seem more abrupt to him. P-Ron only describes an image of a place in the first section. Was this image consistent throughout, or did he pay less attention to place as he became more involved in discussing the musical structure of the piece? Or did his

attention shift during this structural thinking from a physical place (the cricket in a field) to a more abstract place (sounds that are "out of place")?

Cager (32f, University of Toronto graduate colloquium) describes the piece as having two sections:

first section - establishment of a sort of ostinato background sound and pulsing, phasing washes of sound: evokes images of nature, especially in the oceanic sound of the ostinato [or cricket rubbing wings]

second section-continuation of ostinato background [with stops and starts], additional layers of sound that are percussive in nature

-these additional layers produced 2 reactions -

1. that the percussive sounds were acoustic
2. that some sounds were more obviously electronically produced.

in this piece the title definitely is strongly associated with the sound ostinato of the cricket wings that is present throughout.

if I did not know the title I would still associate the beginning of the piece with some type of noise from nature, due to the pulsing wash of sound

According to this description of the two sections, I would place the second section as beginning at about 1:52, when the whipping sounds enter. Cager brings up two interesting points. The first is her delineation of one important part in the piece that creates two sections for her: the point at which the percussive sounds are introduced. She then remarks that she hears the sounds from this point as either acoustic, or electronically produced. This brings to mind the reaction from Minfe, earlier: "I hear sharp contrasts of sounds - the mechanical with natural sound." Both of these listeners are hearing contrasts between two types of sound, categorized either as natural-mechanical or as acoustic-electronic. They do not hear the processed sound as a hybrid, an electronic processing of an acoustic sound. At the same time, however, Cager says that even if she did not know the title, she would still associate the beginning of the piece with nature because of the "pulsing wash of sound." The sound from the beginning of the work that pulses is the

slowed-down cricket sound, which *is* electronically processed. So the sound that represents nature for Cager is one that has been treated in the studio, not an untreated acoustic sound.

Cager's description of the musical structure in terms of an acoustic-electronic contrast seems related to many listeners' comments about the emotions and images that this piece evokes. I will discuss emotions and images together, as they often seemed linked.

Emotions and Images

The word used most frequently by listeners to describe the piece is 'hypnotic'. Five listeners used this term, with a sixth referring to it as mesmerizing. This is perhaps because of the repeated rhythmic patterns in the work, and again recalls Peyser's description of minimalist music as trance-like. One person associates the hypnotic effect with the low drone pulsating at the same rate as his heartbeat.

Seven people said that they really enjoyed or liked it. One described it as soothing, and another said that it would be useful to clear one's mind of stress. One listener said that she liked it because it was creepy. Two listeners had ambivalent reactions: "eerie energy/tension, irritating yet strangely alluring" (Live, 20f, U. of Waterloo theory). "I enjoyed it, but it had something about it that was a bit disturbing [although I can't pinpoint exactly what]" (Wim, 20m, Queen's electroacoustic composition).

Some of the images that were evoked by the piece were pleasant. There were images of moving through a generalized nature: landscapes being traversed at great speeds, trekking through fields and mountains, open spaces, a horse galloping, a train rounding a curve. Several people also associated the piece with a night-time experience of nature. They remembered their own experiences with crickets, in open fields or woods. "Open

spaces/swamp - my backyard near the river when I was a kid — heard frogs too."

(Charles C, 29m, Trent Radio Art Day).

Only two people referred to an image of a desert environment, and this was in a session where I introduced the Zone of Silence as the background of the piece, and described what this environment is like. One creates a detailed image of the desert, which she constructs from other environments that she knows (populated for instance with a woodpecker):

I closed my eyes while listening to this piece and visualized a desolate area for the first little bit. the use of both speakers brought the feeling to me that I was actually lying in the desert. When the cricket sound came into earshot, I started creating scenery in my mind. crickets, a woodpecker, a frog. It's quite visual although I haven't been given anything of substance to see. It's quite a soothing soundscape. Near the end when the clapping and stomping sound came into effect, it didn't really seem to suit the entire theme that I had developed in my head. This actual instrumentation had a beat that varied from the rest of the piece. This change brought me from the desert visualization to someone being trapped in a tunnel, tapping continuously to alarm others. interesting. (Ger, 20f, Queen's electroacoustic composition)

It is interesting that her visualization only lasted until she heard a sound that did not fit her imaginary place — the clapping and stomping, a sound made by a group of people. Until that point, there had only been sounds made by an individual person, or by the cricket, or wind sounds. Since she was alone in her imaginary environment, the sounds of several people disrupted it. Then it changed to an image in which she was trapped.

In other sessions, where I gave less background information, some people heard the piece as far from a dry place: six people referred to the sounds of water, with two of these describing the sound as like what one hears underwater, and another referring to the sound of being inside the womb.

Alienated Reactions

"I don't like the country: the crickets make me nervous."
Marlon Brando in *On the Waterfront*.

Several of the responses indicated feelings of being trapped, lost, captured, or afraid. Some described these feelings growing throughout the piece: "I feel myself walking through a storm after dark. My body is bent against the wind, and I am fighting to get home. I have a vague, growing, sense of unease, maybe a fear that I can't attach a cause to." (Nameless, 22m, Trent Radio Art Day). "I imagine being trapped within an ice cave, water dripping off the icicles and into a vast glacial pool" (Fredd, 23m, Queen's electroacoustic composition). "Like a windy cliff looking over the ocean in a scary movie. Hair blowing in the wind, kind of oblivious to everything that is happening, until you begin to run from the cliff into the forest. As if you are on drugs for the whole time - everything is distorted." (Beth, 32f, Waterloo theory). "Rain, heart-beat like pattern, changed from 'rainforest' mood to something else 'horror'. Heartbeat pattern is gone - sound reminiscent of a helicopter. Changes to sounds which sound very 'electronic'." (Caum, 22m, Waterloo theory class). Note that in this latter quote, the listener talks about a change from rainforest to horror as he also hears the sounds becoming more 'electronic'. Again the heartbeat pattern, which is an electronically-processed sound, is associated with nature (rainforest). Ironically, when the heartbeat pattern is gone, there are actually more untreated acoustic sounds, when this listener hears a helicopter.

One of these descriptions was a fairly detailed narrative, involving an alien kidnapping:

I see myself taken aboard an alien spacecraft. The low rumblings of the middle section are the whine/roar of the drive and I am caged, numbed but not particularly feeling fear. The throb of the spacecraft leaves and I am surrounded by noise. The alien, cricket sounds multiply and I am

examined, tagged, whatever. I am anxious to leave and bang repeatedly on the plastic-like confines of my containment. The alien tells me to [be] quiet (almost recognizable speech). I am disciplined but continue to bang a couple times. There is no pain, or intense sensory input. As if I am viewing from a distance. I hear my footsteps as I stumble away at the end. (Mario Welsh, 22m, Queen's electroacoustic composition).

This is not the only reference to alien cricket life-forms. Seven listeners refer in general to alien encounters, outer space or a sense of being 'out of this world'. Two others refer specifically to the aliens being giant crickets: Raen (22f, Waterloo theory class) says "apocalyptic—crickets come to devour. Reminiscent of old sci-fi movies—attack of giant crickets—but presented in a very real, serious way." Jamca (33f, Waterloo theory class) writes: "I'm in a maze trying to get out—every corner I turn I see a huge cricket in front of me blocking my way."

These reactions were so different from my own — my sense of ecstasy and freedom on hearing this piece — that at first I could not understand them at all. It was recently, when I was watching *On the Waterfront*, that I began to speculate about where they might originate. *On the Waterfront*, a film made in 1954, uses innovative sound design. There are moments where conversations between the principal actors are completely drowned out by ship horns and other dockyard noises, indicating the oppressive acoustic environment of the area. But when the male lead, played by Marlon Brando, talks about the country, which might seem a welcome relief from the noise and dirt of the city, he rejects it, saying "I don't like the country, the crickets make me nervous." In the country, the crickets are a constant acoustic presence at certain times of day, just as machine sounds are in the city. But to Brando, the machine sounds are familiar, yet the cricket sounds are unfamiliar and potentially threatening.

I remember my own experience when I first arrived in Grenada, West Indies, and was living in a rural area. The soundscape was totally unfamiliar, and when I attempted to go out for a night-time walk shortly after arriving, the sound of tree frogs was so loud and close that I almost couldn't move. It took me several days to begin to feel comfortable. My son had a similar reaction to the sound of surf when he first arrived in Grenada. And as I note earlier in this chapter, when the group of artists went to the Zone of Silence, initially they experienced it as an alien and hostile environment. Of the listener response group, Cooil (30m, Queen's electroacoustic music class) articulates this feeling most clearly in his writing:

The title along with the sounds really take me back to my tree planting days, trying to fall asleep at night and getting a little freaked out, trying to come up with rational explanations for all the different sounds outside the tent walls.

Now, it could be argued that cricket sounds are fairly common in the city. I heard some quite clearly one August evening on University Avenue at College in Toronto, in the downtown core. My own strongest memory involving crickets is of walking by a vacant lot next to Highway 427 with my parents the evening after I arrived in Canada. The cricket sounds were very loud: I had never heard so many crickets in England. Yet cricket sounds in the city are still framed by traffic and other familiar machine sounds. In the country they are more naked.

And when Westerkamp works with the sound of a single cricket, this is the cricket sound at its most naked. Then when she slows down the sound, bringing its pitch lower, she evokes the image of what is for some an unbearable intimacy with the cricket, in which it is enlarged and deepened, seeming to emanate from a much larger organism, and perhaps humans can feel relatively diminished in comparison, therefore more vulnerable.

Although one listener refers to older science fiction movies, I would argue that it is in recent science fiction films that giant insects have become the most terrifying hostile alien, the greatest threat to people. While the horror of a human genetic mixing with insects is explored in Cronenberg's *The Fly*, I am thinking more particularly of the *Alien* series.¹⁴²

The original movie in the series, named simply *Alien*, has been described as one of the most terrifying science fiction movies ever made, more horror than space fiction.¹⁴³ In the *Alien* series, the female lead character (Ellen Ripley), played by Sigourney Weaver, comes into contact with an intelligent alien species which seems a cross between a cockroach and a cricket, at larger than human scale and with a human-like cranium. In each of the films, she uses technology to defeat the alien, in two cases blowing the creature out of an airlock, in another case strapping herself into a full-body forklift with mechanical arms and legs that become extensions of her own, giving her the strength to match the insect. These films also explore the dark sides of pregnancy and inter-species intimacy. The alien impregnates humans, who then give birth through the stomach wall, dying horribly in the process.

¹⁴² Also recent programs in *Star Trek: Voyager*, although I tend to believe that these are themselves inspired by the *Alien* series. In the *Star Trek: Voyager* series, the greatest threat to humanity for a long time was the Borg, a cyborg race who range through the universe taking others' technology and assimilating them to serve the collective. In the 1997-98 season, the Borg were themselves devastated by a far greater threat: amphibian insects resembling giant crickets, who have no compassion: when a character establishes telepathic contact with them, they only say "the weak will perish." Once again, it is through technology that the crewmembers survive: they learn how to adapt a Borg nanoprobe to repel the aliens. In the 1998-99 season, the *Voyager* crew meets this amphibian species again, they spy on each other, and through spying learn that they had more in common than they realize, finally establishing a truce.

¹⁴³ "Ridley Scott's surprising, smoke-filled scare fest is the Old Dark House of space movies – more horror than sci-fi, really". Reviewed by Eddie Cockrell, <<http://www.nitrateonline.com/ralien.html>>, posted November 26, 1997.

"Chilling, tense, and perhaps the scariest movie ever made! Ripley (Weaver) is back to do battle with the creepiest, most realistic extraterrestrial life to ever menace a space crew!" <<http://www.cybertown.net/fun/products/d8117.html>> Accessed October 21, 1998.

When the Weaver character herself becomes pregnant, the creature does not harm her, but comes unbearably close, sniffing her scent. This scene is a marker in the developing relationship between the monster and Ripley. Ripley might be described as a particularly feminine hero because of her ability to develop an intimate relationship with the alien, at the same time that she is willing to sacrifice it as well as herself to protect humanity. But is this particularly feminine? Gaining knowledge of an enemy seems to me to be the basis of espionage, as well as the old folklore phrase "know thine enemy." Her desire for knowledge of the alien, for a relationship with it, is to better arm herself in order to destroy it.

In its exploration of inter-species intimacy and monstrosity, the film associates the alien monster with a natural world that is threatened by corporate capitalism. Thomas Byers describes the monster in *Alien* as representing Nature:

The creature is, in fact, an embodiment of nature as perceived by corporate capitalism, and by an evolutionary science whose emphasis on competition is a manifestation of capitalist ideology. (1990: 40)

I believe that the *Alien* series may be a contemporary depiction of urban dwellers' alienation from unfamiliar wilderness environments, the country (unfamiliar place) where the crickets (alien creatures) can make us nervous (lost, trapped, threatened). The generic *Alien*, depicted as a giant insect, is the latest manifestation of human (plus technology) against nature (out of control). The characters of the movie depict various attitudes towards the creature. The corporate scientists in the films wish to domesticate it, to control and funnel its powers, to enslave it. They do not recognize its power to destroy, and do not treat it with respect. Ripley knows it, respects it, but cannot let it live. Ultimately, although the films flirt with intimacy, the relationship developed is all about conflict. This is quite different from Westerkamp's relationship with the cricket, where

she wishes to enlarge and deepen the cricket sounds, metaphorically bringing herself closer to a larger insect, *without* obliterating the cricket in the process.

Science fiction is a popular genre, and the *Alien* series is an immensely successful example. In each film, the threat to humanity is an alien which appears as a giant insect. In each case, humanity is saved by technology. And interestingly, in each case technology is wielded by a woman: in the *Alien* series, Ellen Ripley's role has been described as one of the most interesting and strongest roles ever created for a woman in Hollywood (Byers 1990: 39).

The original *Alien* film also has a very interesting soundtrack, in which the sounds of insects are used to index anxiety in the main character, and bodily sounds (both human and alien) are used to indicate danger. In the film, when the crew first investigates the alien ship, and has found some giant eggs, several parallels to Westerkamp's piece emerge. First we hear the wind (as in Westerkamp's piece). In the *Alien* film, the wind is used to indicate the hostile environment of the planet, and is heard each time we see the planet surface. The crewman's voice makes an explicit connection with a hot exotic environment, saying "it's like the goddamn tropics in here." A held note in the musical track heightens suspense. The crew member's breathing is amplified in his space suit, giving the audience member the illusion that she is right next to the crew member, sharing his experience intimately, so close that she can hear his breathing, and feel his anxiety. In the background, we hear high-pitched rhythmic clicking sounds that sound like amplified insect sounds. These sounds are used in the film throughout the sequence where the crew members find the alien eggs. Later, these sounds emerge again each time we see the main character wrestle with the decision to let the crew members back in to the ship.

A little later in the film, there is a birth sequence, beginning as the crew eat a meal together, and the crew member who we heard earlier gives birth to an alien through his stomach wall. Here, a heartbeat is used to heighten anxiety in the audience, and intimate squishy wet bodily sounds are employed to make the alien seem both very close and too intimate. From this point on, the alien is consistently associated with intimate bodily sounds and wet sounds in general: when the alien kills a crew member later on, sounds of dripping water are juxtaposed with chains swinging, and the crew member lifts his face to feel the water drip onto it, just before the alien interrupts this intimate moment to attack and kill him.

Several sounds in the *Alien* soundtrack are quite similar to those used by Westerkamp in *Cricket Voice*, although with very different intent. Westerkamp uses the sound of the wind and of a cricket, simulates a heartbeat, and plays with these sounds using amplification and pitch-shifting to bring them closer to the listener. Her intent in doing this is to establish an intimate connection between listener and cricket. In the *Alien* film, many similar sounds are used, and amplification is used to create intimacy, but this time with the intention of heightening drama and suspense, to make the audience more afraid of the monstrous alien.

The first film in the *Alien* series was released in 1979. Of my respondents, only two out of the fourteen listeners over 25 had a response that I would relate to horror or science fiction encounters, although several mentioned some feeling of disturbance. Most of the horror or science fiction responses came from younger listeners, who would likely have been more affected by these science fiction films which are aimed at a young audience. Respondents under twenty five have also grown up with science fiction television series such as the *X-Files*, programs which use sound design balanced evenly with music in a similar way to that of the original *Alien* soundtrack, so that recorded environmental

sounds are more foregrounded in the sound mix than in most television programs. Rob Watson (22m, Queen's electroacoustic music) says that *Cricket Voice* reminds him of the *X-Files* "or a major network television program investigating an alien in area 51, the New Mexican desert. Mysterious, foreboding, terrifying, beat with a sense of driving curiosity." My following journal entry describes how sound design is used in this type of television program to establish a suspenseful mood:

October 27, 1998. Tuesday, 10 pm. Space channel. A program begins without credits. It is night-time, a farmer's field. Establishing soundtrack: crickets, accompanied by a synthesized pulsing wash, a narrow noise-band. The sounds are fairly evenly balanced with regard to amplitude, neither music nor sound effect dominates. Text appears on the lower left corner of the screen, giving the date and location. There is a feeling of expectation. The sound of digging, closeup of a shovel, and there — a dead body. It is the *X-Files*.

Unfamiliar sounds often cause an anxious, alienated response as people feel threatened by what they do not understand. This is reflected in the Brando quote at the beginning of this section: the unfamiliar sound environment of the country can make the urban listener nervous. Recent science fiction programming in film and on television uses sound design to play on this anxiety to create drama in a production. Although Westerkamp intended listeners to hear an intimate encounter with a cricket that would bring them closer to this alien species despite their anxieties, some listeners experience this encounter as uncomfortably close, an anxiety that I believe has been maintained and extended by contemporary science fiction programs.

Other Wilderness Pieces

Cricket Voice is an exploration of the acoustics of a specific wilderness environment as well as a celebration of the cricket's voice within that place, through the ears of an urban visitor. Other pieces such as *Cordillera*, *Contours of Silence*, *Beneath the Forest Floor* and *Sensitive Chaos* explore other places and environments, all with a similar interest in

listening for acoustic clarity, the importance of small sounds, and the exploration of microphonic intimacy with the environment.

A published review of *Cordillera* focuses on the experience of silence in wilderness:

“Cordillera” is Ruebsaat’s poem of the same name read by him, altered and united with wilderness sounds, again full of silence. Echoes, hallucinogenic noises, mysterious aural gestures, and a lesson in how natural sounds are interpreted, for those who’ve never really listened to the mountains. (Wreford "Inside the Soundscape," *Anerca* 1987: 8)

There is no sense here of the anxiety mentioned by some with reference to *Cricket Voice*, although the references to "hallucinogenic noises and mysterious aural gestures" could be related to listeners' descriptions of Westerkamp's work as hypnotic.

Contours of Silence is a piece from Westerkamp's larger work entitled *One Visitor's Portrait of Banff*. It juxtaposes the sounds of ice, recorded by moving a small sheet of ice along the surface of a frozen lake near Banff, with the recollections about winter silence of Louis Trono, a man who was born in Banff and his lived there for a long time. In her article about soundscape on radio, Westerkamp writes about how she close-miked these small sounds:

The technique of close-miking sounds and creating new sounds by touching the material of the environment reveals sonic resonances, timbres and textures of a place Because it was winter, I found small winter sounds, cold sounds, sounds of ice. I spent time on a side channel of the Bow River where the water was frozen in horizontal sheets layered on top of each other. By rubbing or knocking small chips of ice on the contours of the large sheets of ice, a very glassy resonance was recorded, ever-changing in its timbre as it encountered different hollow spaces underneath. The sounds had an almost unbearable crispness to them if amplified too much. Because of its incredible clarity the surrounding silence seemed emphasized.... These ice sounds had all the characteristics around which the contours of silence could be brought out: clarity, crispness, acoustic phrasing, changing timbres like the close-up intimate whispers of a human voice. (Westerkamp 1994: 91-92)

Here, Westerkamp uses chips of ice to sound hidden cavities below the surface, getting to know the hidden landscape beneath winter through its acoustics. This is a perspective on

the idea of north in which silence is the threshold of whispers as much as hollow space, intimate as much as cold and crisp.

In his listener response, a German soundscape composer, Hans Ulrich Werner¹⁴⁴ (his real name) mentions *Beneath the Forest Floor* when he discusses Westerkamp's work as meditative and focusing inward: "[it] seeks a motive of contemplation. The inner voice. The sound in us, like in 'Beneath the Forest Floor'." It is interesting that Werner describes a wilderness piece as focusing on the 'sound in us' when the first intuition with wilderness is often to think of the sound "out there." He elaborates: "Sound is inner structure and outer context. Meaning and significance." Indeed, Westerkamp's aim in both *Beneath the Forest Floor* and *Cricket Voice* is to evoke the ability of wilderness to reduce the noise of daily life, giving the urban listener the space and time to listen to inner voices.

Critic Tamara Bernstein describes *Beneath the Forest Floor* as magical and otherworldly:

a magical fusion of sounds recorded in B.C. rain forests. Alongside waves, birds, etc., we hear mysterious, otherworldly sounds that are in fact slowed down versions of the same phenomena. A raven's croak becomes a strange, rhythmic throb that seems to come from the depths of the earth. Other snatches of bird song, when slowed down, yield shimmering sounds that made me feel as if I were hearing the light—and life force—of the forest. The experience had a special poignancy given the B.C. government's decision last week to allow logging of the ancient forests of Clayoquot Sound on Vancouver Island. ("From Dream to Nightmare," April 27, 1993)

Bernstein experiences many images in response to this music, particularly in response to the slowed-down sounds that she describes as mysterious and otherworldly. She describes a strange but not threatening landscape, where throbs come from the depths of the earth

¹⁴⁴ Hans Ulrich Werner, (like a few others such as Barry Truax and Gary Ferrington) has worked closely with Westerkamp over some time. Because this close knowledge of her and her work is an important difference between these listeners and others, I asked if I could use their real names.

(another heartbeat?), and shimmering slowed bird sounds evoke the light and life of this ancient forest.

Sensitive Chaos is less closely linked to a particular place than *Cricket Voice* and *Beneath the Forest Floor*. It explores the many sounds of water, and how water itself evokes as it subtly changes the sculptural shapes of the land it moves through. All of the sources are water sounds, recorded in a number of locations. I played it for a listener at York University in February '94. His response:

-violence (disturbing nature)
-archetypes of water sound? I never realized that water could make so many different sounds
Log hitting side of dock? In rhythm of natural waves - less disturbing
(Nom, 53m)

Once again, the anxiety arises of a potential violence in disturbing nature, or a potentially disturbing violence within nature. This listener initially hears the piece as disturbing a kind of primordial peace. Later, he records that it is less disturbing when the piece takes on the rhythm of natural waves. Ultimately, he hears what Westerkamp intended: the archetypes of water sound, the endless variety of water voices.

Westerkamp's wilderness pieces are not relaxation nature tapes, where familiar classical music is combined with selected symbolic nature sounds that listeners will find soothing, a release from the urban jungle. While some listeners find Westerkamp's work soothing, the majority hear a power in nature that does not soothe. For some listeners this power is mysterious and strange, yet not threatening. It is a reminder of the alien nature of wilderness environments to the urban listener, and Westerkamp's continuum of acoustic sounds to electronically processed sounds and back again allows them a way into (and out of) that other world. For others, Westerkamp's wildernesses remain alien environments, evoking not mystery in accessible nature but an unknown space where the

intimacy of close sounds is threatening. In my analysis of *Cricket Voice*, this seemed particularly true of listeners under twenty five years old, who often referred to horror and science fiction films. The role of popular film in emphasizing a view of nature as alien and intimacy as threatening cannot be overlooked in this analysis.

Westerkamp and the Idea of North

When I compare Westerkamp's wilderness pieces with the construction of northern wilderness as a dominant Canadian image of place in contemporary concert music, I note several qualities that are specific to her work. Westerkamp's wildernesses are not only northern. She creates a sense of intimacy simultaneously with a sense of space, her wildernesses are peopled, and she explores them with the help of technology.

Not Only Northern

Cricket Voice is based on recordings from the Mexican desert. *Cordillera* has a Spanish name describing "the continuous [mountain] range stretching from Tierra Del Fuego to Alaska," a gesture that links the place of recording in the Canadian Rockies to its mountainous neighbouring regions to the far south as well as the north. Westerkamp records a specific place in each of these cases, but she is not focusing particularly on the Canadian wilderness; in fact with *Cordillera* she is making a point that geography crosses national borders. Murray Schafer says "as the project of a northern territory Canadian art has a wildness and vigour not evident in the hot-house effusions of more civilized centres" (1994: 224), conflating civilization with heat and effusion, Canadian identity with wildness, vigour, and northernness. Westerkamp makes a piece in *Cricket Voice* which explores the silence, wildness and life of a southern desert. In *Contours of Silence* she explores the silence and austerity of winter in Banff National Park, while in *Banff Razzle-Dazzle* she moves through the commercial effusions of the town of Banff. These pieces defy polarities such as north-wildness-vigour vs. south-civilization-effusion.

Westerkamp does make a distinction between wilderness and civilization, on the basis of acoustic clarity. For Westerkamp, wilderness is not limited to an idea of ruggedness, purity and cold. A wilderness is an acoustically hi-fi place where contours of sounds can be heard in their entirety, away from the broad-band machine noise that characterizes urban centres. As her work indicates, these places can be found in southern as well as northern locations. And as she points out in *Kits Beach Soundwalk*, they can even be constructed by filtering out the noise from urban recordings. This is an idea of wilderness based on a sense of acoustic space and an ability to find the breathing room to hear inner voices. It is an urban perspective of wilderness, but does not create a stereotypically Canadian image of ruggedness.

Intimacy, Space and People

In *Cricket Voice*, Westerkamp creates a sense at once of intimacy (being right there with the cricket, hearing the interior resonances of cactus) and of immense space (the heartbeat of the desert, singing with the stars). The traditional approach to wilderness is to describe it as an unknown space, an immense territory in which any sense of intimacy is lost in the distance. Hence the emphasis on roughness, isolation and ruggedness in musicologists' descriptions of Canadian composers' work that I discussed earlier in Chapter Two.

By creating a musical space which explores the contours of interiors and which changes the listener's perspective of scale, Westerkamp is creating an unusual approach to the exploration of wilderness. It is a wilderness of microscopic detail, slowness and visceral closeness as well as motion through immense distances. When listeners' anxieties are raised, they are related as much to issues of intimacy as they are to isolation or hardness.

Westerkamp's wildernesses are always peopled. In *Beneath the Forest Floor*, we hear a human presence in the far-off sound of a chainsaw: humanity as threat, much more distant than Schafer's use of the snowmobile in *North/White*, without this human-nature drama being central to the piece. In *Cricket Voice*, we hear the artists' clapping and stomping. In *Cordillera*, Ruebsaat's voice reading poetry asserts a human presence. In *Sensitive Chaos*, the piece ends with the laughter of a child playing with water. *Contours of Silence* is woven around the stories of a Banff resident. Again, there is a difference here from Schafer's idea of an isolated north protected from the incursions of people. Westerkamp insists on a human presence in her work.

Authenticity and Technology

Westerkamp's wilderness works are produced using the aid of electrical technologies. In fact, because she composes with recorded sounds, her work would be impossible without technology. When she enters the studio, she works further with technology to draw attention to certain sounds and the relationships between them. She is not attempting to create an authentic, transparent document of the actual sound recorded, but colours it with her own perspective.

This approach presents some problems in relation to an idea of wilderness as pure nature, unsullied by contact with technology. Let me compare it with Ellen Waterman's description of the CBC recording of R. Murray Schafer's *And Wolf Shall Inherit the Moon*, colloquially known as the Wolf Project. This week long work, performed each August by a corps of seventy-five amateur and professional participants at the Haliburton Forest and Wild Life Reserve in Central Ontario, is the epilogue to Schafer's *Patria* series, and an example of his approach to environmental music. Waterman says:

Schafer's environmental music is integrally linked to his concept of "authentic" Canadian culture defined by geography and climate—the romantic "idea of the North" that permeated many post-1950 Canadian compositions. (Waterman 1998: 17)

Waterman describes how, following the 1996 Wolf Project, she returned to the Haliburton forest with Schafer, a group of other musicians and a CBC radio crew to record the music from the piece. This experience highlighted for her a dichotomy which she says is central to the performance of this work: the dichotomy between art as ritual and art as commodity. Reading Walter Benjamin (1970), Waterman describes two polar types of art, with the purpose of one being ritual and the purpose of the other being exhibition value:

"Cult value" describes art originating for ritualistic purposes rather than public entertainment, which Benjamin sees as belonging chiefly to a pre-modern world, before technologies of mechanical reproduction were widely available. The value of this work is vested in its particular context, rather than in its wide dissemination ... "Exhibition value" refers to a modern world in which art is a commodity subject to the laws of supply and demand. (Waterman 1998: 16)

Linked to this idea of art as either ritual or commodity is the dichotomy between "authentic" Canadian culture—the romantic idea of North as sparse, wild and acoustically clear—and the culture that most Canadians live on a daily basis: noisy, trafficked and electrically mediated. In Benjamin's work, ritual belongs primarily to a pre-modern world, without reproduction, just as the romantic idea of North celebrates its wildness, sparse human inhabitation, and distance from urban technologies.

Waterman describes the efforts of the radio crew to capture the essence of the experience:

The CBC crew ... had never recorded outside of a studio and they worked hard to adapt to the demands of the space. For instance, they began by recording too close to the performers, listening for the clearly articulated sound valued in the concert hall. Recording precariously from canoes, the crew learned to place microphones at increasing distances in order to capture remote echoes and a sense of spaciousness. "Good" environmental

sounds (loon calls, lapping water) were eagerly sought after, while "bad" environmental sounds (the hum of the DAT recorder, stomach grumbles) were ingeniously eliminated.

Even when the sonic environment was right, the mediation of the music through recording technology was problematic. On a recording, the sound of a plane passing overhead can ruin an otherwise perfect performance. (Waterman 1998: 24)

The CBC crew learn to accentuate the sense of space in their recordings, leaning precariously from canoes like Canadian painter Tom Thomson. They create an "authentic" wilderness space filled with loon calls and lapping water while eliminating traces of the recording equipment, the recording body, and sounds of urban travellers flying overhead.

Waterman also notes that the CBC program was originally intended to include recordings made live at the 1996 Wolf Project by participant and soundscape composer Claude Schryer. Schryer says:

Recording makes me even more aware of my surroundings. Every small sound is amplified by the microphone, which puts me in a critical frame of mind. But then I can't experience the simplicity and depth of the moment. (Schryer as quoted in Waterman 1998: 24)

Waterman comments that this account of his recording experience expresses the dichotomy of documentation vs. immanence. But is it the presence of the recording device that necessitates a move to a critical frame of mind, what Waterman refers to as documentation dichotomized from immanence? I sometimes experience a heightened immanence when listening to an amplified small sound that I might otherwise have missed. My perspective has changed, becoming more aware of microphonic details, the amplified small sounds that Schryer speaks of. I often hear something wondrous that deepens my experience and knowledge of whatever I am listening to.

Where does the criticism in Schryer's mind come from? Perhaps from the assumptions that we as a culture have about what it means to document. Schryer's recordings "were not clean enough in technical terms to use on the radio program," says Waterman (1998: 24). "Such pristine tapes could only have been achieved at the cost of interrupting the process of the work itself." The authenticity of art ("the work itself") is here contrasted with the purity of technology ("pristine tapes"). Technically clean recordings can only succeed at the price of artistic authenticity.

Schryer seemed to be attempting something different, in which the performance could be uninterrupted, whole and without repetition, and the recording could also take place. What did Schryer do to avoid interrupting the work itself? He placed the microphones unobtrusively, resulting in "weird perspectives, from foot level or filtered behind a bush" (Waterman 1998: 24), recordings that would betray the physical position of the recordist. Schryer desires to "think about the colour of sound, the sonic background, people's moods, the time of day, the weather" (Waterman 1998: 24). He searches for the aura of the piece as he reproduces it, and in his denial of the dichotomy between a piece of art's ritual aura and its reproduction, creates a work in which the presence of his subjectivity through the recording of different perspectives is considered unsuitable for mass reproduction. In a "suitable" recording, the dichotomies of immanence and documentation, subjectivity and objectivity, acoustic truth and electronic manipulation are maintained as each stomach grumble, weird perspective and airplane sound is erased from the final product.

Subsequently, the group decided to prohibit the use of any electronic recording devices at the Wolf Project, agreeing that:

And Wolf Shall Inherit the Moon must remain an experiential and ultimately ephemeral work, for that is the only way to preserve its unique qualities of community and connection to its wilderness environment. (Waterman 1998: 24)

The CBC radio show allows a version of this experiential and ephemeral work to reach a mass audience, while attempting to maintain the work's aura of a spacious wilderness lake experienced precariously from a canoe. Waterman says that in this process of reproduction, something is lost in the translation. At least some of the things that are lost are the stomach grumbles, DAT hums, weird perspectives and airplanes that are hard to fit into a mythology of isolated and wild "pristine" northernness.

Westerkamp's wildernesses are idealized, too. The sounds of drunkenness that disturbed her visit to the Zone of Silence are transformed to long sighing sounds reminiscent of wind blowing across open bottles. The awesome destruction inflicted on West Coast forests by logging is reduced to the distant whine of a chainsaw. At the same time, a sense of subjectivity remains in a microphonic intimacy facilitated by technology through audible strokes on a cactus skin, or listening to the deep insides of a cricket voice, at the same time as we hear the dizzying distant height of the stars. Making audible her work with technology, Westerkamp does not cast it out of Eden.

Chapter Eight

Moments of Laughter:

Recording childhood, performing motherhood, refusing to shut up, and laughing

It has been a learning process for us to enjoy life, to get past that seriousness, and the older we get, the easier we find it to laugh. And we did laugh quite a bit during these interviews, like when Gislean protested our rigid upbringing. "Little German girls are raised to be little good girls. It took a long time to stop being a good girl, and I resent that. One misses a lot in life by being a little good girl. Cinderella was a wimp." With others it was a different kind of laughter, a soft laughter as, together, we tried to fill in the first lines of a song or poem that we half-remembered from childhood...

What serious children we used to be ... Raised within the silence, we lived in communities where the adults were always right, where obedience and loyalty were valued above all. (Hegi 1997: 300)

The theme of childhood soundmaking has always been an important one for Westerkamp, from her Master's thesis, which uses her own childhood experience of Christmas music as a case study; to her autobiographical *Breathing Room III*, which includes a song that she used to sing as a child; to an article in *Musicworks* magazine ("A Child's Ritual" Summer 1986 issue); to many references to the importance and freedom of childhood soundmaking in her oral presentations. She explores this theme most fully in her work for tape and female voice, *Moments of Laughter* (1988). I think this piece raises the most difficult issues of all of Westerkamp's work in relation to what counts as music, and what stories people want to hear. I believe that this work transgresses borders in several directions at once, in terms of compositional choices and the thinking behind them, cultural expectations regarding the distinctions between public and private domains, the roles of children and women, and the importance of children's non-verbal communication.

My own response to the work was at first quite ambivalent. Having lost custody of my children in a court battle that raised all kinds of questions for me about what constitutes motherhood and fatherhood in our culture, I have since been particularly sensitive to stereotyping in musical constructions of motherhood. When I first heard the work, I heard the performer's reading of a poem in the middle of the piece as stereotyped, too sweet, cloying. When Westerkamp gave me the score, I realized that this reading tone was not required by the piece, but had been chosen by the performer. In addition, I noted that although the piece had been performed only by professional vocalists with ample knowledge of extended vocal techniques (Meg Sheppard, Elise Bedard, and DB Boyko), Westerkamp's instructions in the score made the work accessible to a wider range of performers: for instance, when she asked for a particularly difficult vocal technique, she also included alternatives for less developed performers.

Aware that the work had been performed several times when it was first composed in 1988, but not since, I decided to perform it myself. It had bothered me that at first I was only able to present this performance work to people on tape, and knew that a live performance would be better. Even though I had only attended short workshops in extended vocal techniques, I had had lots of experience singing with groups and vocalizing with young children. I had enjoyed this interaction with my own children, and continue to enjoy vocal play, particularly with babies and toddlers discovering their vocal range and abilities. I performed the work on radio in Toronto, at a festival of sound art by women in Chicago, and at the Modern Fuel art gallery in Kingston, Ontario. Learning to perform the piece, and practising it, gave me a much deeper knowledge of it than I would have had otherwise.

Context

In the liner notes for *Moments of Laughter*, Westerkamp refers to the work of French psychoanalyst and semiotician Julia Kristeva:

Moments of Laughter is dedicated to my daughter Sonja whose voice forms the basis for this piece. Her voice has accompanied mine for many years now and has brought me in touch with an openness of perception, uninhibited expressiveness and physical presence that I had long forgotten.

I have made recordings of her voice since she was born and from the age of four on, she has made her own recordings of stories and songs. *Moments of Laughter* utilizes these for the tape portion of the piece, tracing musically/acoustically the emergence of the infant's voice from the oceanic state of the womb: from the soundmakings of the baby to the song and language of the child. According to Julia Kristeva, moments of laughter are those moments in infancy and early childhood in which the baby recognizes the "other" as distinct from the "self." They are the first creative moments that speak of recognition of self and place. The child expresses these moments with laughter. (HW: Program note)

Westerkamp analyzes Kristeva's writings about moments of laughter in her Master's thesis.

Kristeva takes us as far back as the moment of separation from the womb. All human beings share this first loss, these first feelings of lack: life as a separation from the "oceanic state" in the womb. All creative process is based on the desire to recreate this state of wholeness. (Westerkamp 1988: 117)

This theme is an important one for Westerkamp: I have seen variations on it in several of her writings and musings. She associates creative work with attempts to create the sense of total immersion and connectedness that characterizes the womb state. While Westerkamp accepts this desire to return to a state of oceanic immersion as perhaps the strongest creative urge of human beings, it is important to note that others may not share this desire: remember the dichotomy articulated by David Schwarz (discussed in Chapter Five): "On the one hand, envelopment suggests undifferentiated, oceanic, expansive oneness; on the other hand, it suggests being contained, enclosed, and marked off." (1997: 277) For some, immersion could be positive, for some negative; for many, it is likely to be somewhat ambivalent.

Westerkamp continues:

The young baby is still close to this state of wholeness, is still in a relatively balanced situation. Impression and expression, listening and soundmaking happen simultaneously and play a large part in maintaining a

sense of wholeness. Desire for such wholeness emerges once the baby recognizes an "other" as distinct from its "self," that is, once the wholeness becomes harder to attain. (Westerkamp 1988: 118)

When Westerkamp uses the term "relatively balanced situation," she is referring to a balance of sound impression and expression, that the baby makes sounds in balance with what she or he hears. However, this is not necessarily an emotionally or politically balanced situation. Kristeva says that during the first three months of life, the baby cries in distress, in what she calls anaclisis:

Every cry is, psychologically and projectively, described as a cry of distress, up to and including the first vocalizations, which seem to constitute distress calls, in short: anaclises. The newborn body experiences three months of such anaclitic "facilitations" *without reaching a stable condition* (1908: 282, my emphasis)

This sounds like a particularly unbalanced situation, in which the baby cries in distress without knowledge that the distress calls will be answered. The baby is dependent on adults to provide for her. Kristeva describes the role of the adult, particularly the mother, at this time, as "a disturbed reception, a mobile receptacle, which fashions itself on the invocation" (1980: 282). Paradoxically, the mother is expected to empathize, feeling a "surge of anguish" (1980: 282) and thus to understand the child's distress, yet at the same time to be able to break with this period of "primary narcissism" and allow the child to move on to the next phase, diatrophie "so that, with the advent of autoeroticism, the door is finally open to a relationship with the object" (1980: 282). The baby, in distress, does not seem to be experiencing a state of wholeness, but rather a direct need for assistance. It seems that once the baby recognizes an "other" its desire would be for connection with the other.

Kristeva suggests the baby's desire for connection. She says that during the anaclitic period of the first three months, the baby begins to experience discreteness through

The breast, given and withdrawn; lamplight capturing the gaze;
intermittent sounds of voice, of music—all these meet with anaclisis ...

hold it, and thus inhibit and absorb it ... At that point, breast, light, and sound become a *there*: a place, a spot, a marker. The effect, which is dramatic, is no longer quiet but laughter. (1980: 283)

Westerkamp describes this as a balance of impression (hearing the sounds, seeing the lamplight) and expression (through the sound of laughter). She notes that Kristeva's approach is different from that of theorists such as Deleuze, who describe the recognition of separateness as a violence (Westerkamp 1988: 119). The moment of recognition of another, for Kristeva, is not a moment of angst, of existential loneliness, but of laughter, an expression of joy that someone, some other, is here to relieve the distress and provide pleasure and security.

These scattered and funny moments become projected—archaic synthesis onto the stable support of the mother's face, the privileged receiver of laughter at about three months.... Oral eroticism, the smile at the mother, and the first vocalizations are contemporaneous ...

The inaugural sublimation ... brings us not only to the foundations of narcissism ... but to the riant wellsprings of the imaginary. The imaginary takes over from childhood laughter: it is a joy without words. (1980: 283)

Here, Kristeva associates the imaginary not with desire for wholeness through a return to the womb, but with joy in a recognition of security through knowledge that desires will be met by intimate others. Westerkamp also describes the infant's first expressions as searching outward for connection with something or someone else, a description that seems different from her earlier statement in which wholeness and balance were associated with the womb. She says:

... one could say that these first "moments of laughter" are also first "productions," first expressions of the infant, in search of a "transcendent viewpoint," i.e. in search of the "other." (Westerkamp 1988: 119)

Westerkamp suggests that as the child matures, creative nourishment is recognized in other people, other things beyond the parental figure:

Once the child is a little older, nourishment does not depend on the mother as the only "other," but can now be received through other impressions, other substitute objects. The "other" then can potentially always be a source for nourishment (even though it is a substitute object of the original one, the mother), and therefore a desirable object. Its distance from the self keeps the self's desire in motion. The space that is created by the distance is also what causes the "other" to make an "impression." Desire therefore is set in

motion because the self wants to reduce the space/distance between itself and the object of nourishment. It is in this desire in motion where creativity is located. (Westerkamp 1988: 120)

In this analysis, Westerkamp maintains the primary role of the mother. Other objects are only substitutes for this important relationship. Creativity is born of the urge to connect with her, through these substitutes.

Kristeva continues by outlining how the development of language in children follows this idea of people and things as "place-names."

the future speaker is led to separate ... points into *objects* ... and add to them *no longer laughter but phonation*—archetype of the morpheme, condensation of the sentence. As if *the laughter that makes up space had become, with the help of maturation and repression, a "place name."* (1980: 287, her emphasis)

She notes that many utterances of two and three year-olds are of the type "that's a" followed by a noun, an evocation of demonstrating what things are, combined with other vocalizations related to their earlier sounds, such as "glottal stops and stress (a play on intensity as well as on frequencies of vowel sounds)" (1980: 287).

Kristeva ends by asserting that the use of place-names in the infant's language is an attempted replacement of the mother:

We suggest that naming always originating in a place (the chora, space, "topic," subject-predicate), is a replacement for what the speaker perceives as an archaic mother—a more or less victorious confrontation, never finished with her. (1980: 291)

This is a difficult point: Kristeva suggests that naming places, finding connections with objects and people other than the mother is a kind of victory over her, a diminishment of her archaic power over the child. Westerkamp asserts that finding such connections is a type of substitution for the mother while still desiring an original closeness with her, more of a nostalgia than a victory. Which is more accurate? Perhaps there are elements of both.

As a semiotician influenced by psychoanalytic theory, Kristeva describes the role of the mother-child dyad as crucial with regard to its relationship to desire and psychological wholeness. Westerkamp, as a composer, is interested in this desire as it relates to creativity. Lorraine Code, as an epistemologist, describes this relationship in terms of its importance to learning: "recognizing nurturant others, learning what she or he can expect of them, comprises the very earliest infant learning" (Code 1998).¹⁴⁵ Code also points out that in traditional developmental psychology and epistemology, this initial learning is devalued, constructed as an early, private, dependent and inarticulate phase in the development of the child into a mature individual:

Discourses of development and maturation represent "the child" as a being who unfolds out of an infancy in which he is radically, vitally dependent on nurturant others, to a place of full individual autonomy where he becomes his "own" person, renouncing dependence to emerge as a self-sufficient individual. Development thus represented is a linear process that achieves completion at "the age of majority," having passed through well-marked stages or levels en route to this fully separated moment. Cognitive and moral maturity, then, marks an end of dependence on infant and childhood nurturers. It manifests itself in achieved mastery: mastery over "one's own" body is so taken for granted that it rarely receives mention except as a precondition for all the rest; mastery over emotions aligns closely with bodily mastery; mastery over the becoming-adult's physical, social, cultural, and natural surroundings: a complex of "masteryes" that represents a solitary coming of age in matters moral, epistemological, social and personal. (Code 1998: 4)

Code challenges this traditional model of child development, suggesting an alternative in which the agency of the child is recognized and respected. Westerkamp's approach to this time of initial learning, desire and creative soundmaking also challenges this linear developmental model through its emphasis on the continuing construction of identity in both children and adults: the mother in the piece is changed by the experience as much as

¹⁴⁵ For a more detailed discussion of Code's ideas about second-person epistemology, see Chapter Three.

the child, and constantly shifts identities. By taking this relationship as a formal basis of the music, she also taps into important familial power relations, as will become obvious when I discuss listener responses to this piece.

Musical Structure

Moments of Laughter is a nineteen minute piece for voice and tape. In this analysis of it, I will juxtapose Westerkamp's information and instructions from the score with my comments on performance choices.

A live female voice interacts with the tape, performing live. It tries to find its own language and music on the one hand, and imitates, reacts to, and plays with the child's voice on tape on the other hand. It moves through a variety of characters in search of a confident, strong voice. *Moments of Laughter* explores the edge between the "wilderness" of the child's voice and the cultural formations of the female voice. (HW: Program note)

Note Westerkamp's location of this work on an edge that she describes as a border between wilderness and culture. This explicitly connects the work with some of her other pieces, such as *Kits Beach Soundwalk*, which is literally in a marginal place, a beach in an urban park, between land and water, city and nature. It also connects this work to pieces such as *Cricket Voice*, which explore her experience of wilderness. This description underlines the connection of *Moments of Laughter* with place, while the previous sentence asserts its connection with dialogue, primarily one between a live adult woman performer and a female child on tape. A dialogue also emerges between the child on tape and earlier recordings of herself. In addition, at one point, the live performer sings in counterpoint with Westerkamp's recorded voice. Throughout, there is a continuing interaction between the recorded and live voices and the other sounds on tape.

Moment One: Prologue

Sounds of rhythmic play begin the tape part, the regular banging of a rattle on a surface juxtaposed with a melody on a harmonica, joined shortly by a higher-pitched melody on a

music box and a high drone. The high-pitched music box and drone continue, providing a sparkling background for the introduction of Sonja's voice, sounding about seven or eight years in age:

I come here to tell you that I have been recording since I was nine months old. I was very excited to hear me again, recording from when I was a little baby. I've recorded tons of times, since I was nine months old I think it is. I'm not quite sure. But I am **so glad** that I've been recording. I love recording. My mum's a composer. She does *Fantasie for Horns* and records sound. Well, today I don't quite know what we're going to do. But I don't know if we should do anything.

Several things strike me about this introduction. It gives an authoritative position to Sonja: she is introducing the piece to the audience. She frames the coming performance. She is experienced and skilled as a recordist: she has recorded "tons of times." She affirms her connection with her mother, who is a composer—a specific composer, the one who made *Fantasie for Horns*, and who also does what Sonja does, recording sound. She expresses a desire for non-intention that John Cage would appreciate: "I don't know quite what we're going to do. But I don't know if we should do anything."

The piece opens in the dark. The performer is offstage or backstage and walks on, breathing slowly, as the child's voice introduces the listener to the piece. As the dim blue lights come on, the performer should be in centre stage intensifying the breathing until the first cries of the baby are audible. In response to the baby's cry the performer emits a joyous welcoming call. Initially I had an African call in mind that is made by women when they are welcoming somebody [ululations]. It is a high warble produced on one pitch. If the performer is not familiar with this sound or for some reason cannot reproduce it I would like to encourage her to find her own welcoming call suitable to her voice range and character. (HW: score)

During the initial minute, while Sonja introduces the piece, the performer is instructed on the score (page one) to take slow deep breaths—a great antidote to stage fright, as I discovered in Chicago. It gives the performer the chance to listen to Sonja's voice, concentrate on the tape part and ground herself. At around 1:30, the performer is instructed to breathe more rapidly, and "echo rhythms of harmonica (on out breath)." At this point, the harmonica is playing a mid-range melody of tremulous notes in a descending pattern. As the performer imitates this rhythm, she is also imitating the rapid,

focused style of breathing called for in Lamaze classes in the transitional period of labour just before birth. I am always reminded of this experience when performing this section. Gradually, water sounds are introduced into the tape part, then a baby's cry at about 1:55. The performer here makes a succession of welcoming calls. In the DB Boyko performance, this is the high, warbling cry called for by Westerkamp. I could not reproduce this cry, and also did not want to,¹⁴⁶ so made a cry which is simply the word "welcome" using only vowels "eeeeo—" and exaggerating the melody of saying the word, rising on the e, then quickly falling to rest on one note for the o.

After the welcoming calls the performer moves slowly towards the rocking chair (placed towards back of performance area), making the following sounds:

sssssh ssSssShh sss

this should be a calm, breathy sound on ssss and sshh, etc. The sound colour can be altered by changing the shape of the mouth cavity.

Then the performer sits down, rocking slowly, and begins to sing the lullaby. The tonal centre for the lullaby is middle "c," which has been established on the tape by that point. The sound of the voice should be chesty, with a lot of body, a "bluesy" voice, calming. As the tape fades out the performer should intensify her singing, forming a bridge between Moment One and Moment Two. (HW: score)

As the performer makes the shushing sounds, the child's voice gradually calms, accompanied now on the tape by some newly-introduced high-pitched sounds such as quick, light, glassy and short downward glissandos and more processed sounds derived from water, beginning at around 2:30. Deeper water sounds form a rhythmic gulping close to the listener. The tape part at this point is timbrally dense and diverse, with higher pitches continuing to predominate. Throughout the lullaby section, the child vocalizes, making "ahh" and "uhh" sounds.

¹⁴⁶ Also, I was aware by this point that several listeners had been disturbed by the intensity of this cry, which was not always interpreted as a welcoming sound. For instance, Newton (22f, Queen's gender and music class): "after the baby is born, the noises which the mother makes are quite disturbing until the mother starts to hum."

Moment Two: "Dadawawa" (6 months old)

A quick knocking introduces the next section, at 4:08.

As Moment Two begins, the lullaby should gradually fade away. As the child's voice re-emerges, the performer gets out of her rocking chair and — initially — imitates the child's sounds, delighting in producing as accurate imitations as possible. But very soon the child's sounds should become nothing more than take-off points for the performer's own improvisations. Using the sounds typical for this age (such as "da" "wa" "ma" "na") gives the performer the opportunity to explore her own vocal pitch range. All this should happen in a playful manner, as a type of playful "dialogue" between child and female performer.

Around 5:55 ... the child makes a rather throaty sound on tape. I want the performer to find a similar voice quality and sing the simple tune suggested in the score, bridging Moment Two with Moment Three. (HW: score)

On the tape, a wooden xylophone and harmonica accompany the initial knocking.

Musical clocks come in, again in a high pitch range, as the child's voice begins with "ahdada." Again, this section activates strong memories for me when I perform it. I enjoy the recognition that crosses a young baby's face when she or he realizes that I am imitating his/her sounds. The number of subtle variations of vocal inflection, pitch, and rhythm that babies can produce is really remarkable. Their willingness to experiment with these subtle variations can lead to long and intricate vocalization duets. It feels somewhat different performing this with a tape rather than with a live vocalist, since each time, the order of vocalizations is the same. The temptation is to go further and further from the taped child's vocalizations each time, for the sake of variety. But at the same time, it is important to maintain the connection with the child's voice on tape.

The child's voice in this section makes a lot of "aa" vowel sounds with various consonants, as Westerkamp notes, as well as quick, deep inhalations (the performer has to be careful not to hyper-ventilate), and blurring noises. At the end of the section, the performer is asked to imitate the nasal inflection of the child's voice, and to sing a tune (on "naaa") with a tonal centre of middle C, and repeated pitches (ee ff ee cc gg etc.) with the emphasis on the second note. The harmonica on tape is playing in the same pitch range, using longer gestures.

Initially, when I began rehearsing the piece, I was bending forward to perform the vocalizations in this part. I realized that this was because when I have done vocalizations with children under a year, it is often down on a blanket. When I sent Westerkamp a recording of a rehearsal of the piece to listen to, she noticed this orientation:

It might be interesting to try to combine the intimacy of your current approach, as if playing on a blanket with the child (that is the image I get from your voice work) and the more outgoing public performance approach. (Westerkamp email correspondence with McCartney, November 20, 1998).

In order to make a clearer separation between Moment Two and Moment Three, I decided to perform Moment Two actually on a blanket, with the microphone positioned just above the floor, then perform Moment Three standing up.

Moment Three: "Gegogegodababl" (1 year old)

By the time the child's voice reappears, the tune from Moment Two should have disappeared. This section should be rather "zany" and silly in its vocal "movement." The performer can use the child's voice as cue for some of her own vocal sounds, imitating their mood rather than the sounds themselves. Other sounds on tape, such as toy-sheep sounds, surprised gasps of air, birdsong, etc. may also be incorporated in some way. The order of the suggested sounds and melodies is left up to the performer throughout this section.

I have suggested two tunes for this section. One is a simple skipping tune and the other one is derived from a pygmy woman's lullaby. I chose this latter tune for this section because I associate the large intervallic jumps in the lullaby with a similar "jump" in the child's voice on tape. There was a time when this vocal "technique" was often "practised" by my daughter and I was then reminded of the pygmy woman's lullaby. If the performer is not familiar with this style of singing and/or if this style is outside of her vocal range or ability She can adapt this tune as long as it somehow connects to the child's vocal "jumps" on tape. Also, both tunes can be transposed to a comfortable range maintaining the intervals. The pygmy style tune should sound rather "airy" and light. (HW: score)

When I was rehearsing the piece, I had some problems with the skipping tune at the beginning of this moment. This tune is one that I do not associate with the age of one, but with the age of eight or nine. It was a tune used by children in my neighbourhood to make fun of each other, in a cruel way, to pick on children who wore glasses, braces or had other differences from the tormentors. However, as I performed the piece I noted the similarity of this tune to the tongue games that Sonja plays on tape (moving the tongue

rapidly in and out of the mouth). This changed the association for me,¹⁴⁷ and I was then able to improvise around the tune more comfortably, emphasizing its association with the tongue game. In this section, Sonja's voice is accompanied more sparsely with birdsong (in a similar rhythm to the skipping tune). Her vocalizations have expanded to include a wider range of vowel sounds (gegogego), and the rapid intervallic jumps discussed above by Westerkamp, interspersed with sounds similar to those in the previous section. After 7:00, the tape includes the sounds of toy animals, particularly a sheep, which Sonja imitates. The long chords produced by this mechanical sheep sound also anticipate a choral top used in the next section. At around 8:00 on the tape, I hear a man's voice briefly imitating Sonja, accompanied by Hildi's laughter. A high-pitched bell is introduced on the tape, followed briefly by a car horn. Sonja continues to vocalize with fast intervallic jumps. At around 8:40, the performer is instructed on the score:

Hum long tones, interspersed with audible breaths. Harmonic singing would be ideal here, anticipating the choral top [a toy—a spinning top that makes sound as it spins]. (HW: score)

Moment Four: "Da Da Do" (1 1/2 years old), Text by Norbert Ruebsaat

The choral top on tape provides a framework for the performer's recitation of Ruebsaat's poem. Each stanza of the poem is associated with one long gesture of the choral top.

In this section the pace is calm and reflective. The performer speaks directly to the audience. The text should be spoken in a storytelling mode, perhaps explaining, with quiet intensity. I have indicated the places where the text should be spoken. When the child says "dadado" it is important that this is not covered up by the performer's voice. Otherwise the audience will not be able to make the connection between the poem and the child's voice. My daughter used to use the word dadado to say teddybear, telephone and Jennifer. For that reason these words are stressed in the score. Dadado should be pronounced exactly like the child pronounces it on tape. (HW: score)

¹⁴⁷ The unpleasant associations were also changed as a result of an email conversation with Westerkamp. I told her of my reservations, and also mentioned that my dog, Nikita, responds strongly to my rehearsals, howling and watching me intently. When I emailed Westerkamp with my concern, she replied as follows: I wonder how Nikita would react to your interpretation of that moment? You could try to use her name with it and see what happens.

Her suggestion worked: when I rehearsed that section using Nikita's name to sing the melody, it re-framed it sufficiently that I was able to perform it more effectively. Also, once the initial block was removed, I was able to hear associations between that melody and some of Sonja's vocalizations on tape, that I had not been able to hear before because of the strong emotional tone of my memory.

Text of "Dadado," by Norbert Ruebsaat, as performed in *Moments of Laughter*

Words need hugs
They need to find themselves

All those words need lost things
They need places to go.

Dadado
It just turns out that way
It can mean a lot of things

Dadado
You turn around and you just try to find the thing for it.
You pick up the telephone.

It is just a word looking for home.
Like a teddy bear.

All those words
Need lost things
They need places to go
They need to find themselves

Like when you are lost
And you are looking for a girl...

Named Jennifer.

Words need hugs.
That is the thing about them.
They need to go to those places
and find themselves.

As well as the choral top, the tape juxtaposes the sound of rattles (panned from left to right) with Sonja's voice, quietly repeating "aus baan, aus baan." So the first word that the listener hears from Sonja is the German word "aus," meaning "from." At 10:15, Sonja says, more loudly, "dadado." At 10:55, the telephone rings, and Westerkamp's voice says "telephone," with Sonja repeating "dadado."

It is this section that I found too sweet and stereotyped in DB Boyko's performance of this piece. Her recitation of the poem was in a sing-song voice, which seemed to me too similar to the kind of voice that adults use when they are talking condescendingly to young children. When I perform the piece, I try to make my recitation as straightforward and serious as possible.

Moment Five: Song and Play (2 1/2 years old)

This is a meditative piece, in which the performer concentrates on a type of "inner song" that is quite different from what the child sings. The performer's and the child's voice connect only on a tonal level not in terms of musical "style." Along with the child's voice a female voice is audible on tape, singing melodies somewhat in the style of J. S. Bach's arias. These melodies have to be understood by the performer as an emerging memory, which the live voice then echoes in a fragmented fashion. I have suggested when and how the performer should echo the female voice on tape, but this can be altered or adjusted. It is important here to keep a balance between the two female voices interacting with each other and the child's voice, i.e. the performer's voice should have the same intensity as the female's voice on tape. At no point should the presence of the child's voice be forgotten or covered up.

Theatrically it works well to have the performer positioned in a spotlight in a meditative posture. The posture should express a thoughtful, reflective mood, somewhat dreamlike. (HW: score)

The female voice on tape is Westerkamp's. So in this part of the performance, there are three human presences interacting: Westerkamp, Sonja, and the live female vocalist. At the beginning of this section, as Westerkamp introduces the musical themes, Sonja's voice is processed for the first time, becoming more reverberant and pitch-oriented (one listener refers to Sonja's voice here as sounding like whale song). Then we hear Sonja in the bath, saying sentences for the first time "You are Penny" (repeated). The more processed child voice continues in the background, while Sonja's unprocessed voice continues with some more songlike vocalizations: "Ooh ahh" on a long downward glissando. She goes back and forth between these sentence forms and more extended vocalizations: "You are silly" "Splaaaaaash" "I waaaaant to, I waaaaant to," then counts to 10 (begin again). "Oh look it!" "Buy some more?" then ends with laughter.

While I was careful to pay attention to the presence of the child's voice in this section, making sure that my own voice did not cover it up, I found that initially, I could not listen as intently to the child in this section as in others. Because my primary interaction was with Westerkamp's voice on tape, developing a counterpoint between her song fragments and my own, I found it more difficult to listen to Sonja's voice as well, since, as Westerkamp notes, her voice connects with the vocal performer's only on a tonal level. I needed to listen to the tape part by itself several times first, then only later to practice my vocal part with it, in order to integrate all the parts effectively. It would have been easy to ignore the child's voice altogether, in this concentration on an "inner song" developed in counterpoint with the recorded adult voice. This performance situation creates more distance between the vocalist and the child. As vocalist, I re-focused sonically, as a parent at times retreats emotionally from a child, developing an inner song that is only tenuously related to the child's experience. Westerkamp associates this meditative and attenuated state with the music of J. S. Bach.

Moment Six: Self and Other (3 1/2 years old)

As soon as the performer hears the first sound of this section she should jump up from her meditative position as if surprised, move downstage and deliver directly to the audience. This is a conceptual piece. It is about discovering a relationship between self and world, expressed through echo, feedback, reflection. The child's part on tape is about discovering the feedback process between herself and the tape recorder: the ability to listen back to her own voice or hearing it through headphones. The performer's words should be bouncing off of the child's words, but they should also come from "inside." The words should be spoken in a variety of ways: searching, discovering, astonished, surprised, intense. Where indicated the words should be sung. Not all words suggested in the score need to be used, since it may be hard to fit them all into the short timespan, especially towards the end. However, as many as possible should be used. The more lively and playfully this section is performed, the better. (HW: score)

The tape part begins with Sonja's voice humming a tune and using nonsense syllables, or some kind of made-up language. During this part, the performer says words such as "Voices. Sounds. Word. Song. Language." Then Sonja's voice says words which the vocal performer responds to directly:

Sonja

Performer

Boy!	Man!
Little Red Riding Hood	Woman [sung]
want to listen back to it	I want to hear myself
I want to listen back to it	I want to feel my voice
I said bye bye to myself	This is my voice!

Other words are interspersed, both on tape and in the performer's part, which are less directly echoed but still related to each other. Sonja says: "Light! Microphone! Flowers! Speaker! Light! Bed. Pillow. Sleep. How are you?" and tells a short story about a troll living under a bridge. These words are interspersed with laughter. The performer says: "Mirror. Garden. Reflection. Sound. Echo. Home. World. Love. The touch of sound." Some of the words on tape have been processed with reverberation.

Moment Seven: Laughter (4 1/2 years old)

I have given no musical suggestions to the performer here. I see this section as a chance to be funny, virtuosic, outrageous, gross, making faces, being a clown or a fool. Depending on the performer's orientation, this section can contain anything from vocal action to lots of body language, clowning action, things that would make a child laugh and would make the child's laughter contagious to the audience. Whatever the performer decides to do should happen in interaction with the tape, never competing with or covering up the child's voice. The performer should definitely not include laughter into her vocal actions. (HW: score)

The tape part is all laughter from Sonja. Her voice, with reverberation added, is panned from side to side giving the listener the impression of being inside the laughter. At the end of this part, Westerkamp's laughter is heard briefly.

I was fortunate enough to have an opportunity to perform this piece privately for a mother and child, friends of mine. Initially, I had a great deal of trouble rehearsing this part, because although the laughter on tape is lively and engaging, it is still on tape. I realized how much, when clowning for children, I count on their response to develop what I do. When I knew that the laughter would come anyway, whatever I did (somewhat like a laugh track on a television show), it was difficult to really be funny. But when I had a young child for an audience, I was able to develop an approach which I knew at least

worked for her. She started laughing when I hid my face then made gross faces and noises, and imitated a donkey's call while moving in an ungainly way. In the performance, I extended the hiding part to staggering around aimlessly on the floor under the baby blanket from Moment Two, making various gross noises.

Moment Eight: "Songs and Stories" (5 1/2 years old)

At the end of the laughter section the performer moves back to the rocking chair, sits down and opens a fairytale book. In this section the child is singing songs in various languages and is telling a story. The live vocal part consists of a series of beginning lines from fairytales. In Appendix "B" I have given a list of such lines, all of which begin with "once" or "once upon a time" and introduce us to a variety of female characters. The performer can choose her favourite lines and intersperse them randomly throughout this section. Each one should be read with a slightly different expression (slow, fast, whispered, talked, excited, wondrous, mysterious, etc.) A pause must be left in two places where the child says: 1) "the smart little pig/he was very smart/ was very smart..." and 2) "that's the end of you old wolf." Everywhere else the performer can use her own discretion of how and when to place the phrases. (HW: score)

The fairytale beginnings chosen by the performer in this section play a large role in determining the character of this section. There is a wide range of introductions, from fairly neutral: "Once there was a little girl who lived in a wild garden..." to some that are much more stereotyped: "Once upon a time there was a woman who was a real witch and she had two daughters. One was ugly and wicked. The other was good and lovely..." Then there are others that present more realistic situations: "Once upon a time there lived a mother with her three children. She worked hard to support her growing family..."

In the tape part, Sonja's voice is singing songs in German, English and French, and telling the story of the three little pigs in English. Every once in a while she stops and says: "mum, listen to it." The tape part is completely made up of layers with Sonja's voice, unprocessed. There are no other sounds around her.

Moment Nine: To the Heart (7 years old)

This is the performer's chance at a jazzy, freely extended vocal performance. I have suggested the following elements:

rapid breathing as in Moment One.
Tiny, close-miked whispered sounds.
Glissandos with a warble.
Glissandos with an aah or other vowel sounds.
Rrs with a rolled tongue or flutter-tongued.
"Dugga-dugga," alternating pitches or rapidly going up and down, then landing on a long, intense tone.
Improvising tune around the drone on tape.
The joyful, welcoming cry from Moment One is returning at the very end of the piece, immediately followed by:
A long exaggerated sigh.

This section should start out with breathing and quiet whispered sounds until the child has spoken the looped sentence two times. It is important that the audience gets this chance to understand the child's words. The performer is welcome to invent additional sound elements and is free to perform the suggested sounds in any order, except at the beginning and end of the section.

The idea here is to create the reverse situation of Moment One: there the female voice contained with its structured tune the baby's primal vocal techniques, here the child contains with its structured tune and language the female's extended vocal explorations. (HW: score)

Sonja's voice sings a descending melody, with the words: "My mum dug dug dug down to the middle of the earth, to the heart, to the heart, to the heart [inhale]." This melody is looped throughout the section, and accompanied on the tape by a reverberant organ sound playing a repeated broken chord in G, in a middle register (GDG below middle C). The differing lengths of these two repeated figures give this section a very strong rhythmic sense. After several repetitions, reverberation is added to Sonja's voice. Shortly after this, a high-pitched drone is added in the background. Then Sonja's voice is layered with itself, with the final words of the melody "to the heart" being heard in syncopation with itself. The reverberation is increased throughout this section, making the words less evident. Out of this reverberant field, Sonja's unprocessed voice emerges, saying the words: "Hi mum, see you mum, you're a silly fool, mum," fading out on the third repetition to end the piece.

Listener Responses

This piece formed part of a listening project for a research paper written in 1995 (unpublished) about listener responses to a number of works by different Canadian

electroacoustic composers. In that study, listeners responded to a short excerpt of the piece (about six minutes). I also played excerpts of this piece for a number of undergraduate university classes. I played the whole piece on tape for a large grade 10 girls' vocal class at North Toronto Collegiate. As I noted earlier, I also wanted to garner responses to the piece as a whole, performed live, and decided to perform it myself in order to facilitate this. The initial performance was for a friend, Donna Warr, and her three year old daughter, Mawgan, at their family cottage, a safe — and still relatively private — environment. The next performance was on CIUT radio, on Sarah Peebles's show *The Audible Woman*, which airs at 8 pm. on Tuesday evenings in Toronto, broadcasting to southern Ontario and upper New York State. I contacted about forty people by email and asked them to listen to this show, and send me responses. Unfortunately, only one listener responded to this call. I also performed the piece live in Chicago, in December of 1998, obtaining a number of responses, as well as in Kingston in March of 1999. In all, the number of written responses to this piece was the largest of all the pieces in my research, with ninety eight in total.

Musical Structure

The most detailed analyses of the musical structure of this piece were made by the Grade 10 girls in the vocal class. Two of the girls described the piece in some detail.

Liane (14f, North Toronto C. I. vocal class) says:

I believe the music was grouped by different stages in the life of the baby, e.g. birth, when began to talk. Tells the story of a baby through music. Background music expresses the emotions. Relationship between mother and child

1=birth
2=speaking - not English
3=playing
4=poem
5=making child laugh

6=reading a story to child
7=speaking

This summary includes all of the moments indicated in Westerkamp's score, with the exceptions of Moment five, "Song and Play" and Moment Six, "Self and Other," the two sections following the poem. Many of the other sections have similar titles to Westerkamp's: "Prologue and Birth" becomes "Birth," "Laughter" becomes "Making child laugh," "Songs and Stories" becomes "Reading a story to child." This listener clearly apprehended not only the general idea of the piece, but also its progression through various stages of life indicated through different approaches to sound.

Another student in this class came up with six different sections. Angel associated these sections with different memories and emotions of her own. I have added the moments in the piece that she refers to in parentheses:

The music was full of so many mixed emotions. It had the fears of a child and also some of the joys of growing up and learning and developing into a little person.

I really liked the moment with the baby being washed. It brought back memories of watching my mom wash my little sister. I also remembered having baths with my sisters [Moment One].

The part with the dog barking in the background and hearing the sound of the baby's voice brought back memories of my fear of animals as a child. That whole scene kind of reminded me of the fear and anxiety of being child even though people think it's all carefree there's really so much to worry about [Moment Seven].

The part where it went nana nana na na reminded me of kindergarten and playing little games with all my friends. Then all the other voices added in and it sounded like recess at my school. [Moment Three]

The woman's voice talking about words sounded like the child's ... leading it and trying to get it to say something instead of just meaningless words. [Moment Four/ Moment Six]

The part where there was kind of like a choir singing reminded me of my old school because it was an Anglican school so we had to go to church so that part in the song represented to me the child being introduced to religion and knowledge because she started speaking and saying numbers.
[Moment Five]

When the child was singing it reminded me of when I would learn songs at school and I would feel so excited to go home and show my parents.
[Moment Eight/ Moment Nine]
(Angel, 15f, North Toronto C. I. vocal class)

Like the previous listener, Angel relates to this piece with reference to the development of the baby, focusing much more on the child's experiences rather than those of the adult vocalist representing the mother. This makes sense since she is listening to the piece with reference to her own memories and childhood experiences. The experiences she discusses are fascinating, with references to religion, education, socialization in kindergarten and relationships with parents. Many of these themes arise in other listeners' responses as well, as I will discuss later.

Many people of different ages listened to this piece, including several electroacoustic composers, and yet it was only these two high school students who described the formal structure of the piece in detail with some accuracy. Why is this? To suggest some possible reasons, I will turn to some of the other responses to the piece and its status as music, beginning with the response of my friend Donna Warr to my initial performance of the piece. Her response includes several questions which seemed implicit in some other listeners' responses.

Being a woman who has given birth, the birth sequence, the breathing and the sounds made me go somewhere within myself automatically—recesses of myself being addressed. So some kind of contact was made initially for me. Then came an ambiguous/uncomfortable passage, both mind and body, moving around—not able to focus, much shifting of self. Mind saying such things:
Is she really going to act like a baby?
Does she think this is music?

Oh my friend is more of a nutcase than I thought. This is unprofessional: does her singing change all the time? Is this legitimate? She is over the edge on this one.

This is really silly—I am experiencing pain.

This passage distanced me from the performance. My mind and body fighting and rationalizing the layers of cultural stigmas and barriers, pulling me away from the experience. Content I was somehow in this comfortable reprieve from the performance: comfort, we so frequently seek comfort=survival.

I was pulled out of this self-encased zone by a few spoken words...

Donna continues after this to describe her reaction to the end of the piece. I will discuss that part of her response later. At the moment, I am concerned with several of the questions that she asks in relation to the musicality of the piece and its legitimacy as performance, and how these relate to other listeners' responses.

Does she think this is music?

Several listeners describe the piece as not being music. Larry, an electroacoustic composer in his '50s, says "If this is meant unpretentiously for small children, fine. Otherwise, there is nothing in it musically." Amos, (51f, North Toronto C. I. vocal class) asks: "Is this totally improvised or notated in some way? This is fascinating, but soundscape is a more apt name for it than music—I'm glad they coined a new term." She can accept the piece as soundscape but not as music, and wonders whether it is totally improvised, perhaps indicating that if it is in some way notated, that the notation would make it more legitimate. Two of the students in this class also dismiss it as non-music. Lively (15f, North Toronto C. I. vocal class): "Child talking doesn't sound like music. Lullaby noises to quiet her daughter." Even the very melodic lullaby is described as "noise" rather than music by this listener. Gwen: (15f, North Toronto C. I. vocal class) "Doesn't really seem like music. No rhythms or pitch." Gwen cannot hear the many rhythms and pitches in the piece because it doesn't really seem like music to her.

Other listeners perceive the piece as a welcome challenge to musical convention. Some listeners focus on its function as a celebration of daily life. Angsax (23f, Waterloo theory class) responds "music is a living thing, celebrating life." Raen (22f, Waterloo theory class) goes a little further, indicating that this idea of music as a celebration of daily life is one that challenges accepted ideas of what constitutes music: "challenges conception of music—life is music." Cora (14f, North Toronto C. I. vocal class) says "This music was like an aural photograph album," noting the connection with an aural rather than visual record of relationships within a family. Another student in the class, Amethyst (14f) hears its expressivity while noting its difference from her usual taste: "*Moments of Laughter* is a very real, expressive and joyous piece of music. It is very different from what I would normally listen to [although I do listen to all music, I'm a real fan of hip hop and R and B]."

One composer notes a connection between this piece and the work of an avant-garde filmmaker, searching for a connection in another artistic discipline that will give this work legitimacy. Albert (28m email) says: "Waterbaby—what was the name of the film with the birth of the baby? 1st year avant-garde cinema." He is likely referring to the film *Window Water Baby Moving* by Stan Brakhage (1959), which focuses on Jane Brakhage as she gives birth to their child. Brakhage is considered one of North America's most prominent avant-garde filmmakers, in part because of his films that make no clear distinction between (public) art and (private) life, creation and procreation. In visual art, Mary Kelly's (1975) *Post-partum document*, a large piece based on her relationship with her son from birth to age six, does similar work.¹⁴⁸ Westerkamp's *Moments of Laughter*

¹⁴⁸ "The work, begun in 1973 with the birth of her child, is an extended documentation of the mother-child relationship. It covers the first six years of the child's development and is divided into six sections including, in all, approximately 135 pieces. Each section examines a stage in the constitution of a woman's identity in and through significant moments in her child's development: for instance, weaning from the breast, weaning from the holophrase (learning to speak), weaning from the dyad (periodic separation from the mother), the first questions about sexuality and the collection of cathected objects which represent loss,

was composed in 1988, much later than either of these works, and is the only musical piece that I have heard which is based on the sounds of a developing relationship between a parent and a child over time. Some people still will not consider it as music, or consider it to challenge current conceptions of what music is. Donna Warr suggests that, for her at least, to dismiss its legitimacy as music both allows her to remain in a comfortable position in relation to it, unquestioning of cultural conditioning, yet at the same time distances her from the performance, as she is unable to engage completely with it from this insulated position. Perhaps this insulation and lack of engagement is why there were so few descriptions of the musical structure, even from people who are musically trained and who were able to describe the structure of other pieces. The blocks surrounding responses to this piece are simply too high for some to surmount.

Within the electroacoustic community, there was very little said about this piece. It was performed at Convergence, a Canadian Electroacoustic Community conference held at the Banff Centre for the Arts, in 1989. After the concert, a few composers spoke privately to Westerkamp, telling her that they found the piece "too personal." The work has been performed rarely since that time, and I only know of one review of it. There has been no discussion of it in any public forum. Perhaps this silence reflects lack of interest, embarrassment, ignorance, or something else. Silence about a work is ambiguous. Since the criticism was made that the piece is "too personal," I will explore the possible meanings of this phrase, which is itself ambiguous.

Are the visceral bodily sounds that are represented too personal for some? A short segment of the work imitates (albeit in a very muted form) the sounds of birth, a part of

not only of the child but of the maternal body, and finally the child's entry into the law of the father — learning to write, starting school. The child's entry into the patriarchal order is experienced by the mother both as a loss and as a re-enactment of her own initial negative entry into language and culture." (Isaak, Jo Anna 1983: 203)

life that is rarely represented in music. Suzanne Cusick attributes this silence about birthing to a "cultural horror" of the act of birth-giving (1994: 26). She suggests that part of the social discomfort with the act of giving birth is that the changes in breathing and the cries of a labouring mother can sound sexual. Some listeners initially interpreted the birthing section as a representation of sexuality, and were embarrassed by it. Another listener notes that the birth section was very stylized. But if it had been even more visceral, perhaps it would have caused even greater embarrassment. Beth (23f, Waterloo music theory class) interprets the bodily sounds as dangerous: "don't like the breathing—giving birth or doing something she shouldn't to a baby [psycho] while they are in the bath." Live (20f, Waterloo music theory class) also hears these sounds as evidence of the mother being a danger to the child: "scaring the poor baby [moans and groans]. Splashing in the bathtub. Mommy had a little too much to drink." The conflation of sexuality and motherhood through the bodily sounds of heavy breathing and panting is a cultural danger zone: Jo Anna Isaak, reading Julia Kristeva, claims that "the figure of the 'mother who knows sexual pleasure' is the most severely repressed 'feminine' figure in Western culture" (Isaak, in Kelly, 1983; 205).¹⁴⁹ To make these sounds public is considered by some to be obscene, embarrassing, or potentially dangerous (sexual). I would suggest that the act of representing this repressed figure by making these sounds public is radical and transgressive.

Is the call-and-response too close to the sonic play between parent and child that I myself initially found "too personal" to be considered music? One aspect of the vocal work that excites commentary is its exploration in Moments Two and Three of non-verbal

¹⁴⁹ Even the highly sexualized Madonna of popular music changed her image radically when she became a mother, protecting her child from public scrutiny and toning down her stage persona, projecting spirituality more than sensuality. Perhaps she is aware of the power of the mother stereotype, and does not wish to tamper with it. Although Madonna may seem transgressive in her projections of sexuality, perhaps she does not dare take on this very difficult issue of sexuality in motherhood.

communication between mother and child, as the child learns language. Some listeners like this expression of communication without words. James (20m York electroacoustic composition class) says: "I liked the call/response between voice and baby—playful like a child... Reminded me of how we learn to associate sounds and what it would be like not to have any associations." James notes how the piece leads him to think about free play with sound. Kapok (16f North Toronto CI vocal class) likes this part because of the interaction between woman and child: "I particularly like the communication between the performer and child, and the reaction that performer has towards the child. I also like the performer's imitation of the child's noises." Max (21f York electroacoustic composition class) says: "I like the variation and call/response between child and woman, very artistic idea. Generally the interaction of sounds really works with this piece. WHOA! The last groan (by woman) is brilliant sounding." Mark Heinrich (24m, York electroacoustic composition class) locates the musicality of the passage in the presence of the female vocalist: "woman's voice repeating conversations of vocables between baby—turning it into music—and mother." My own initial response to this section was "Why, this is exactly what I did with my children. But it is just play, not music." Of course, when I was asked to make similar sounds in an extended vocal workshop,¹⁵⁰ I did not question their musicality. When I associated this kind of sound-making with the musical context of an extended vocal workshop, they seemed musical. In the context of my home and my own children, perhaps I associated them too much with the domestic realm. Putting these sounds, and the sonic relationship between parent and child, in a concert setting challenges these assumptions.

¹⁵⁰with actor, singer and vocal coach Richard Armstrong, in Toronto Fall 1993.

This is unprofessional: does her singing change all the time? Is this legitimate?

I have since reconsidered my initial response that questioned the musicality of childhood vocables, remembering the concentration, improvisation, repetition, and interaction that characterized daily sessions of soundmaking with my children. Perhaps because Westerkamp calls for extended vocal techniques in this piece, it allows audience members to make the connection that she wishes between musical expressivity and the sounds of young children. Perhaps for some this also tends to situate the musicality of the piece in the virtuosity of the female vocalist's responses to the child's sounds more than in the child's sounds themselves, which are not considered musical in themselves. For instance Mark Heinrich, above, speaks of the vocalist *turning* the child's sounds into music. Also, one of the responses to my performance in Chicago focuses on my more limited scope as an extended vocalist as a weakness of the piece:

I've heard other pieces by Hildegard and am most familiar with *In the Forest Floor* [sic], which is quite different from this piece. The tape part is interesting enough, but I strongly feel that this piece necessitates a very strong, wide-ranging, and truly exploratory vocalist, which was not the case in this performance. So the "responses" to the tape were very unsatisfying improvisations, which distracted and detracted from the piece. (Decker, no other information given, Chicago)

Decker claims that the piece "necessitates" a very exploratory vocalist, not considering the possibility that Westerkamp could have written it to accommodate people with a wide range of technical abilities, as she did. When Westerkamp provided alternate suggestions for vocalists, she was emphasizing the development of a relationship between vocalist and taped child that depended less on virtuosity, and more on subtle movements from imitation to interplay. Blue-Green (27f composer, Chicago) finds the variation in interplay to be most interesting: "baby section was most interesting when performer's voice was not mimicking exactly—kept the piece in a realm beyond nostalgia." While Westerkamp asks the performer to improvise rather than mimicking the child's voice exactly, she does not want these responses to become too virtuosic, or to take over from

the child's voice. Many times throughout the instructions to the performer, Westerkamp reminds her to balance her voice with that of the child's, avoiding competing with or covering up the child's voice.

Does "too personal" refer to Westerkamp's decision to leave the vocal sounds on tape relatively unaltered, and therefore recognizable, not abstracted from their context? As I note in the chapter on epistemology in relation to electroacoustic music, technical skill with equipment is highly valued in the electroacoustic music community. Many of the sounds in this piece are juxtaposed but not altered: this is more characteristic of this work than of others such as *Cricket Voice* or *Fantasie for Horns*, for instance. Westerkamp decides how much to manipulate particular sounds based on her relationship to the sound, her care for it: she admits that she is more ruthless with the sounds of truck brakes than with the sounds of organisms, and she is even more careful than usual with the sound of her own daughter's voice, as I discussed earlier in Chapter Three.

Some listeners share Westerkamp's careful attitude towards the manipulation of sounds.

Eve Angeline (27f, individual contact) says:

kind of 'dangerous' sounding, about things that are explicitly private [invisible?] in relation to the symbolic order. Voice not particularly altered: I worried about scary alterations of mother/baby voice. Anticipated [she anticipated such alterations with fear].... Safety is important to me ...i.e. don't want composer to 'turn baby into machine'.

It is interesting that the first time Sonja's voice is altered is during Moment Five, when the child is two and a half years old. This is the point at which children begin to express themselves more fully with language, entering the symbolic order. At that point, perhaps Westerkamp feels less of a need to protect the child's voice from alteration, since she has moved out of the realm that Eve Angeline describes as "explicitly private" in relation to the symbolic order. Eve Angeline wants the child's voice to remain safely unaltered, and

anticipates frightening alterations of it. Jane (20f, York undergraduate electroacoustic music) says "the child seems vulnerable and helpless amid a hostile and potentially dangerous world."

This theme of the innocent child menaced by a hostile world is one that has been used repeatedly in Hollywood films, as Lou (31m, composer, Chicago) points out: "Kids' voices recorded are a horror show cliché. It's creepy and sentimental." It is not Westerkamp's intention to present such a dramatic context: this is not a story about a child being menaced. Yet nineteen listeners use words such as "scary" and "sinister" in their responses.¹⁵¹ As in my analysis of *Cricket Voice*, I believe that this has less to do with Westerkamp's treatment of childhood sounds, and more to do with Hollywood's dramatization of them. As Eve Angeline points out, it is the anticipation of a possibly dangerous environment that characterizes her response, rather than the perception of one intended by the composer; in Jane's words, a "potentially dangerous" world rather than one that is actually dangerous. It is plausible that listeners would anticipate a dangerous environment for the child's voice since the treatment of a child's voice in a dramatic context such as television or film is often to create an image of innocence that is menaced.

Westerkamp chooses to keep the child's voice safe by only changing it slightly rather than radically, and by doing this she loses some of the composers, who wish for more manipulation of the voices. Elizabeth (21f, York undergraduate electroacoustic composition) says: "Interesting things are done with the voice. The singing voice in the middle sounds a bit out of place—needs to be a bit more 'abstract' or experimented with." Biff (22m York undergraduate electroacoustic composition) comments: "I really think

¹⁵¹ Ten of these were from the class of Grade 10 girls.

that the vocals would have sounded better altered—like at the beginning." In these responses, there is no concern about the safety of the child's voice, but rather a description of it as a resource, something to be experimented with, or altered, or made more abstract. These responses by young composers already seem to reflect the emphasis on technique and abstraction that also characterizes electroacoustic textbooks, and the traditional values of the genre.

Is she really going to act like a baby? ... This is really silly...

Is the simple presence of a child's voice in a public place controversial? Should children (and perhaps women) be seen and not heard? Some listeners in my study reacted very negatively to the voices. Zubian (20m York electroacoustic composition class) says: "Extremely annoying child talking. Excited woman grabs attention. I feel like I'm intruding on the woman and child's privacy. Towards end of piece voice becomes unbearable torture. Shut up lady!" Cora (25f, Queen's University gender and music course): "Can't take this. Can't stand the little girl's voice who sang "I love recording." Both these listeners use very strong language expressing their distaste for the voices such as "unbearable torture" or "I can't stand this." Gwen (15f, North Toronto CI) writes "very interesting ... shut this kid up already!" then crosses the latter phrase out. Another girl in the same class (using the same pseudonym), is equally ambivalent about the voices:

I am trying to be open-minded, but I find this song annoying. I feel like I'm at home trying to have some peace and quiet but my family is annoying me....the lady reading reminds me of the storytellers on polka dot door [so phoney]. She has a nice voice! (Gwen2 15f, North Toronto CI)

While there were many responses which did not complain about the characteristics of the recorded and live voices, the intensity of many of these comments leads me to wonder what is at their basis. Is it an insistence that the private sounds of a mother and child should remain private, not cross into the public domain of a concert hall where listeners

could feel that they are intruding on a private space, spying on a home? I find this challenge to the public-private dichotomy an exciting and important aspect of the piece.

The controversy around the use of a child's voice as the focus of imitation could be a reflection of the cultural denigration of children's activities. In an article on this topic, composer Pauline Oliveros and music theorist Fred Maus have the following interchange:

[Oliveros] ... there is the whole cynical attitude about babies and children that their activities are to be sneered at, not to be taken seriously. "That's just a baby!"¹⁵²

[Maus] *And of course, that's tied in with the way that women are thought about— "That's just a baby" and "That's just the way that women spend their time, watching the baby do these silly things."* (1994: 181)

With a deeply-rooted cultural prejudice that babies have nothing to say, particularly before they learn language, it would seem foolish to base a musical piece on imitation of the baby's sounds—hence, perhaps, the judgment made by some listeners that there is nothing musically worthwhile in the piece, or that the baby's voice is annoying, just baby babble, not worth listening to. This is similar to the reaction of the traditional art world in 1975 to Mary Kelly's *Post-Partum Document*: "the mainstream art crowd denigrated the piece because it was just about a woman and her baby, thereby no fit subject for high culture" (Lippard 1983: xi).

Being a woman who has given birth...

Lippard records another reaction to Kelly's piece about the mother-child relation:

the piece joins the broad spectrum of feminist art attempting to rehabilitate denigrated aspects of female experience, from needlework to maternity to female sexuality and language.

On one hand, then, PPD could be said to reinforce stereotypes by identifying a woman artist by her motherhood, although eventually it

¹⁵² I attended a Deep Listening workshop led by Oliveros at the Kitchener Open Ears Festival. There was a baby there, who vocalized during the first few minutes of the workshop, as we listened.

becomes clear that Kelly is interrupting rather than propagating clichés.
(Lippard 1983: xi)

My initial reaction to the piece reflected a similar concern: I heard the performer's rendition of the poem as too sweet and cloying, indexing a stereotype of motherhood as simply sweet, soft and nurturant. Some other women listeners discuss similar feelings. Jean (42f, woman composer, individual contact) says:

At various times in the piece I feel a tension between being very engaged in the sound world being created, and at other times am uncomfortable with the sentimentality being expressed. This could have to do with my uncomfortableness with the "mother" culture, and how it forces adult women to remain at a child level. This is not necessarily inherent with the work, but I feel that because at times one is able to feel a sense of female power and at other times these references to more sentimentalized female culture, the piece doesn't fully address this cultural problem.

Cora (25f, Queen's University gender and music course) has a stronger reaction, in which she cannot stand hearing the child's voice, as I mentioned earlier. This adverse reaction seems to be located in her feeling of not belonging, of not knowing what she is supposed to be feeling, in a feeling of intimidation:

I can't take this. Can't stand the little girl's voice who sang "I love recording." Sounds of giving birth, water, baby.....Nature me? My female body, is this where I belong? I guess the combination of these sounds supposed to be.....peaceful....normal.... soothing. But I can't stand it. I can't stand abnormally loud (amplified) sound of the water. I prefer sound which is more visual, (for me somehow) than this - too artificial sound which imitates nature. I don't know what I am supposed to be feeling. Not only I can't stand but also I feel intimidated.

Her feelings of intimidation in relation to the piece bring to mind the many descriptions of this piece as "scary" or disturbing among the high school girls' responses. Jen (15f) writes her response as a poem:

the birth of the child
the cues and laughter too
the mind warps of the toddler

who to the world is new
the growing process now begins
the pains of aging, amongst things
the growling of dogs
the singing of mom
she teaches the child
a new song
now the child is older
learnt new interesting things
the child will grow and love
into the world a new child it brings
listen to the laughter
as it grows
and again the seeds of life
it does sew

This poem describes a cycle of life based on giving birth and raising children. What are the "pains of aging" that this young woman mentions? Another student in the class, Amantha (14f) mentions "fear of the unknown," while Kate (15f) says "later in the song, the talking and emotions made me feel scared." For some of these teenage girls, the fearful unknown may be the role of motherhood. On the one hand, they have been told that giving birth is a miracle (three girls used the phrase "miracle of birth." One of them put the word "miracle" in quotes, indicating a degree of skepticism). On the other hand, they see their own mothers' lives, as well as mass media versions of motherhood, and wonder about how this role would shape their identity. Danae (15f) imagines a mother's identity as completely linked to the child:

my bodily fluids immerse you,
washing and cleansing.
my blood is your blood
my body your body
my heart beating... your heart pounding
mother and child.

This poem was accompanied by a Madonna image.¹⁵³ Hope's discussion of motherly identity is more complex:

¹⁵³ I was impressed by the number of drawings that accompanied the teenage girls' responses. There were many more than in other responses. Also, there were many poems, and references to playing with sound in

Very loving and motherly. Mysterious (a few parts). Calming (in some sections). Enchanting, very unusual, a little uncomfortable. The moments in a baby's life sound comforting, rewarding, and they cheer you up (the sounds). One sequence of this composition made me feel sad and it even made me miss my own mum even though she is at work. (When the mother is solemnly humming and singing to her baby, as the baby is playing, it sounded as though she was sub-consciously watching her daughter grow up). Dreaming. This part was also a little sad, and it made me feel as though "mentally" I was travelling through time and back. It's hard to explain. When the woman sings it sounds like those old folk songs in the times of slavery. (Hope, 14f)

Here, Hope describes different parts of the piece in terms of the unknown (mysterious), a construction that makes the unknown seem more enchanting than fearful, but still somewhat uncomfortable. She hears the baby's sounds as comfortable and rewarding, and at the same time sad. It is interesting that at this point she travels back and forth in time, attempting perhaps to associate the imaginary mother identity she has constructed so far with that of the child: it makes her miss her mum and also identify with the mother watching the child grow up. This description recalls Westerkamp's description of the self as desire in motion,¹⁵⁴ searching for nourishment for her creativity in the mother, then in others. Hope's association of the blues lullaby with the times of slavery is musically accurate and also politically interesting, in light of the possible meanings of this sense of loss felt by a mother as her child matures.

As I mentioned earlier, mothers are put in the difficult situation of forming a strong empathic bond with a young dependent child, then later allowing the child to develop

similar ways to those heard on tape. It was heartening to see this level of expressivity among teenage girls—a time when I remember losing touch with my own in the wash of hormones and social pressures. I created a section of the CD ROM which juxtaposes excerpts from the piece with some of these images.

¹⁵⁴ Once the child is a little older, nourishment does not depend on the mother as the only "other", but can now be received through other impressions, other substitute objects. The "other" then can potentially always be a source for nourishment (even though it is a substitute object of the original one, the mother), and therefore a desirable object. Its distance from the self keeps the self's desire in motion. The space that is created by the distance is also what causes the "other" to make an "impression." Desire therefore is set in motion because the self wants to reduce the space/distance between itself and the object of nourishment. It is in this desire in motion where creativity is located. (Westerkamp 1988: 120)

independence. The child's increasing independence is further complicated for the mother by its association with the learning of language. This acquisition of language establishes a place for the child in the symbolic order, and at the same time reminds the mother of her negative place in that order. As she watches the child gain independence, she begins to lose the power that she had in the child's life as primary nurturer. In Laura Mulvey's review of *Mary Kelly's Post-Partum Document*, she describes Kelly's approach to the work of art as a fetish to replace the child as fetish, to deal with a sense of loss, and to express rebellion against her secondary place in the symbolic order:

As the child grows through the various stages of increasing independence from his mother, she experiences a sense of loss that Mary Kelly describes as reliving her own previous Oedipal drama, undergoing castration for the second time and re-learning the fact of her negative place in the symbolic order. Within these terms, the mother has two possible roads open; recognition and acceptance of her secondary place or rebellion against it. Her rebellion takes the form of the fetishisation of the child (as substitute phallus), clinging to the couple relationship and refusing to allow the child to emerge as an independent entity. Part of the fascination of the *Post-Partum Document* lies here: the exhibition in all of its obsessive detail fetishises the child, but in this case, the mother has reconciled her 'natural capacity' with her work as an artist. The art object as fetish replaces the child as potential fetish. (Mulvey 1983: 202)

Westerkamp's performance piece is different from Kelly's installation. A performance cannot work as a fetish object quite so successfully, because it is not an object, but an ephemeral event. But there is no question that rehearsing and performing this piece contributed to my understanding of this sense of loss, to my rebellion against my secondary place in the symbolic order, and to my ability to deal with this sense of loss.

Perhaps the analogue of a fetish object in performance is the ritualization of rehearsal, its investment with significance and emotional intensity. I was careful to schedule my rehearsals for *Moments of Laughter* in the privacy and comfort of my home studio. I paid attention to the emotional effect of different moments, writing about these in my journal

or corresponding with Westerkamp about them. Even before I considered the significance of using a blues song as a lullaby, it felt right in rehearsal, seeming to express much more than the attempt to help a baby sleep. Blues songs are commonly understood as a musical form that expresses loss, as well as rebellion against the slaves' secondary place in the social and symbolic orders; the choice of that form as a basis for the lullaby could invoke these associations, and I believe they did in my case although I could not articulate these associations initially. Kelly explicitly describes the loss of the child through his growing independence as the point at which a mother relearns her secondary place in the world, at which point she can either accept this or rebel against it. Westerkamp does not discuss this process explicitly, but chooses a musical form that has been used to express both loss and rebellion.

The adolescent girls' responses to the piece were often related to their memories of their own childhoods, as well as anticipation of, and imaginings of a future role as mother. But what about reactions by men? I have often wondered, for instance, whether a man could perform this piece. The inclusion of a birthing sequence near the beginning would mean that a man would need, at least at that point, to be "cross-dressing" in a way that I have never heard before. Certainly, this would contradict Westerkamp's intent, since she appears quite clear that this is intended for a female vocalist, to explore feminine identity in terms of motherhood. Does a performance by a female vocalist exclude men from the role of audience, or does the piece still speak to them as people who may be parents, and certainly were children, themselves?

Some men do relate to the piece as parents. Albert (composer, 28, individual contact) says "I must continue to record Ivan and Lizzie." Larry, another composer (50, individual contact) relates as a parent, and finds the sounds problematic: "Background sounds trite-no depth (sonically)- just too cute- I lived with my daughter on a boat in B.C. until she

was two. These are not the sounds I remember." Brit (40m, Waterloo theory class) is also reminded of his daughter's early life: "memories of my daughter's birth and early months at home." Several other male listeners described the work as a mother-child piece, and did not refer to any memories of their own childhoods. These responses (twelve in total) were fairly neutral, interested without expressing a high level of engagement or alienation.¹⁵⁵

Five other responses were clearly alienated, to differing degrees. Ishmael (35m, individual contact) says "Yikes. This is all rather personal isn't it? Somehow because it feels documentary-ish, I don't really feel like I'm here." Zubian Marys (20m, York electroacoustic composition) says "I feel like I'm intruding on the woman and child's privacy ... Shut up lady!" Windblower's (39m, Chicago) distanced response describes the piece as too academic:

Interesting premise but I find it rather academic. In view of the emotive, reciprocal non-verbal interaction between the child and adult. I am reminded of the structuralists' concerns (passé) with words, and the associating with meaning. An interesting juxtaposition of sounds but lacks enough power to clearly elucidate in a non-verbal way the particulars of the relationship (and human element) between adult, child, the interdependence between both. Perhaps I would have a different reaction if I had more time to hear it/digest it.

Lou (31m, composer, Chicago) also criticizes the work because of its academic nature:

This work is a dead end to me. Vacuous to me. Not speakin' to me. As it goes on I like it less and less, even though I'm trying to breathe deeper to concentrate on it.... Academia is a big waste of time in my opinion, unless you can get the big money with some sort of cultural-femino research.¹⁵⁶

Chris (23m, composer, Kingston) says:

¹⁵⁵ Here is an example of such a response, by Dave (20m, York electroacoustic composition): "Representation of child birth, mother and child. Exploration of voice as an instrument. Different cultures - jazz, Indian ragas, etc. - "orderly" adult voice vs. atonal baby voice."

¹⁵⁶ This focus on academia is perhaps because the listener response forms identified me as a PhD candidate, and I was also simultaneously acting as performer of Westerkamp's work as well as composer of my own.

I'm not sure I fully understand this work. Perhaps it's because I'm male, and don't have any "maternal instincts" (if there is such a thing). With the help of the program note, I understand the process and purpose, but I find my reaction strangely blank.

At the Kingston concert, I also played Westerkamp's piece *The Deep Blue Sea*, which is based on a non-custodial father's experience of parenting, both before and after losing custody. Chris had a much more engaged response to this piece: "A strange, warming, yet sad story. The intonation of the voice and the background sounds blend perfectly to create the mood." Chris wonders if his lack of engagement with *Moments of Laughter* is because of his maleness and lack of maternal instincts. Is it because *The Deep Blue Sea* was based on a man's experience (Brian Shein), read by a man (Norbert Ruebsaat), that it was easier for Chris to identify with the narrative? But some of the male listeners, quoted earlier, did have more engaged responses to *Moments of Laughter*, so Chris's response seems more idiosyncratic than generally male.

I was surprised, however, that none of the men's responses referred to their own childhoods, or to their relationships with their family members, themes that arose often in the responses of the adolescent girls in particular, as well as some of the adult women.

For instance, Morgan (22f, Queen's gender and music):

These sounds are so familiar. I too loved to hear my voice on tape recorder (tape retorter- I called it) When I was small. The baby sounds are like my baby brother. The catches in the voice and breathing to catch air to make a sound, like the baby is not sure what is going to be effective in making the sound it wants, is familiar.

Newton (22f, Queen's gender and music): "Little girl's comments are cute and remind me of when I was young and recorded my own voice and thought it was fun." Two of the adolescent girls also refer to recording their own voices when they were little. Several of the girls mention memories of being a child or caring for children as a babysitter.

For some of the girls, the piece led them to revalue their mothers. Alex (14f): "makes you think what a world without a mother to talk to, to be with, just to love and be loved by, would be like." Bab (14f):

I remember when my mum used to teach me patty cake. She also taught me to read. I used to go to my mom if I had a bad dream. This piece brought back the good memories that I had when I was little. It also made me think about life. We have a lot to live for.

The responses from the adolescent girls in general indicate much greater access to memories of early family life, or at least their willingness to talk about these memories, than other respondents. Would the same be true of adolescent boys? Perhaps in the future I will find out. It also seems that some of the women listeners were able to relate the piece to their own childhood, while the men either related as parents or did not seem to be able to identify strongly with either woman or child. Is this because white middle-class Western men are pressured to individuate more clearly, defining themselves as mature adults, to fit their stereotyped gender role? Certainly it seems that while women such as Donna, who have given birth, have the clearest access to the piece — at least initially — as listeners, if someone has not given birth, it does not mean that they cannot listen to it. Parenting as a father, memories of childhood and of relationships with other children can also provide access.

There were significant differences in listener responses to this piece, based on age and gender. Cultural specificity is another possible limiting factor. Referring to Carol Gilligan's approach to developmental psychology, Lorraine Code notes that Gilligan's are markedly white texts, contrasting with developmental stories from other racial and cultural locations. She quotes a striking example related by the writer, bell hooks, in *Bone Black* :

...in traditional southern-based black life, it was and is expected of girls to be articulate, to hold ourselves with dignity... These are the variables that white researchers often do not consider when they measure the self-esteem of black females with a yardstick that was designed based on values emerging from white experience. (hooks 1996: xiii)

This description of expectations of articulation and dignity for young black girls in traditional southern life is quite different from the silence and subordination required of young white European girls, as reflected in the quote at the beginning of this chapter. Westerkamp is clear that her piece is based on her own experience, with her daughter. She was born and raised in Germany, where children are expected to be silent and serious, as noted in the quote at the beginning of this chapter. When she searched for cultural representations of female power, such as the welcoming call in *Moment One*, she sometimes borrowed expressions from other cultures (in this case an African welcoming call). Other cultural borrowings include the blues lullaby in *Moment One*, and the pygmy music in *Moment Three*. Listeners' responses to these cultural borrowings seemed to focus on whether they fit or not. When I discussed the piece with the girls' vocal class, several mentioned that they found the welcoming call rather frightening. Not understanding its meaning as a welcome, they heard it as a loud and perhaps threatening sound.¹⁵⁷

Several listeners describe the blues lullaby as not fitting with the sounds of the baby, without being specific about what not fitting means. David (30f, composer, very white)¹⁵⁸ says "singing the blues-like part doesn't fit for me." Biff (22m, York electroacoustic composition, white) responds "that jazz improv scat thing in the middle sounded like shit—out of place with the rest of the piece. Maybe that was the intent."

¹⁵⁷ This was not an issue in my performances of the piece, since I was not able to reproduce this vocal style.

¹⁵⁸ Since this discussion refers to cultural differences, I include the ethnicity of each respondent, as they describe it.

Ralph (15f, North Toronto C. I., Vietnamese [1st gen, cdn born]) comments "'jazz' sounds odd, doesn't suit baby noises." Other listeners enjoyed this blues section. Esther L (23f, Queen's gender and song, Asian Korean) says "nice jazzy melody that mother's humming." Amos (51f, North Toronto C. I., American) says "gorgeous voice—sensuous jazz-style lullaby." Jamca (33f, Waterloo theory, Jamaican-Canadian) responds "every day mothering sounds cool with the humming and bluesy singing." In a small sample such as this, with under a hundred listeners, it is difficult to make any extrapolations about how a sense of fit is related to cultural background. However, it is interesting to note that the only response to the blues singing that mentions its political implications came from a young woman who is Guyanese-Iranian, Hope (14f, North Toronto C.I.): "When the woman sings it sounds like those old folk songs in the times of slavery (slightly in particular sections)." Is it her cultural background that prepares her to hear with this level of awareness?

Only one listener expresses concerns about cultural appropriation and universality. Larry (50m, composer, white anglo) says "I also have trouble with the all too obvious great mother woman child bit—the "universal representation"—a bit of jazz, black soul—pygmy music to boot." Dympna Callaghan, in her discussion of feminism and the problem of identity, notes:

The crucial contradiction of the liberal humanist aesthetic is that individual identity and personal experience are paramount aspects of art so long as they provide evidence of a universal human nature on the model of the privileged white male; but they become specious once they mark specificities (gender, race, etc.) that are diametrically opposed to this hegemonic model of identity. (Callaghan 1995: 202)

Westerkamp's cultural borrowings reflect her urge to expand the piece beyond her personal experience, to find powerful women's voices elsewhere, creating a version of motherhood that aspires to greater universality, that attempts to speak to an audience

beyond white European women. They are aspects of other *women's* experience, and her attempts at greater inclusivity are clearly considered specious by this listener, who speaks from the privileged position of a white male composer, and who also criticizes the sounds she uses from her personal experience: "trite—no depth (sonically) just too cute. I lived with my daughter... These are not the sounds I remember." Some listeners criticize Westerkamp for being too personal in this piece, for relying overmuch on her personal experience. This listener criticizes her for attempting to go beyond her personal experience by borrowing aspects of sonic styles from other cultures. Perhaps in both cases the criticism is because it is the experiences of women that are the focus of her work in this piece, experiences that mark specificities that differ from the hegemonic male model of identity.

The charge of essentialism—of positing an essential, unchanging feminine identity, is one that tends to arise whenever Westerkamp uses 'natural' or bodily sounds, or refers to aspects of women's experiences. This issue emerges also in listener responses to *Breathing Room*. In *Moments of Laughter*, the concern about stereotyping arises in response to the birthing sequence, an experience that is limited to (some) women. But sometimes, listeners who were concerned about this possible essentialism had changed their minds by the end of the piece. For instance, Blue Green (27f, composer, Chicago) says "Great ending! Not sure about beginning. Actually, it set me up for a sentimental scene that was not as predictable as I thought it would be."¹⁵⁹

¹⁵⁹ I am interpreting Blue-Green's use of the word 'sentimental' as a concern about stereotyping based on a singular idea of the mother culture, as in Jean's (42f, composer) use of similar terminology: "... at other times I am uncomfortable with the sentimentality being expressed. This could have to do with my uncomfortableness with the "mother" culture ..." Beverley Diamond expressed a similar response to the piece to me privately, noting that she worried about essentialism at the beginning, but found the range of identities represented in the performance complicated that response later on.

While essentialism would posit a fixed, unchanging identity, Westerkamp asks the performer to engage with a range of identities. I believe that the piece is not essentialist, because the vocalist is asked to move through—to perform— a series of different identities in relation to the child's development, culminating in that of the fool, a parodic character. At times the female vocalist is soothing, at another she is discovering the joys of vocal performance with the child, at another she is involved in developing an inner song, at another she is teaching the child about feminine identities through story-telling, at times she clowns to make the child laugh. In the ending, there is a sonic expression of the tension between the woman as earth-mother and as clown, expressed by the child: she sings "my mom dug down, down, down to the middle of the earth, to the heart, to the heart" and her final words are: "Hi mum, see you mum, you're a silly fool, mum." Throughout the piece, the performer revels at times in being silly, in playing both child and fool simultaneously, the fool who is childlike. In Westerkamp's work, as in Mary Kelly's *Post-Partum Document*, the identities of both child and parent constantly shift. Kelly states:

In the *Post-Partum Document*, I am trying to show the reciprocity of the process of socialisation in the first few years of life. It is not only the infant whose future personality is formed at this crucial moment, but also the mother whose 'feminine psychology' is sealed by the sexual division of labour in childcare. (Kelly 1983: 1)

Lorraine Code notes that recognition of this type of reciprocity is unusual in most feminist writing about motherhood, in which primary attention is usually given to the woman as subject:

In mothering relations throughout their duration, it is difficult to 'let go' of a child sufficiently to see her, or him, and act with her in full cognizance of her own agency; to resist treating her as a projection of her mother. Maternal thinkers' sometimes excessive valuing of connectedness can represent such 'letting go' as neither right nor desirable. Moreover, in most feminist writing on motherhood, mothers are the 'persons' and children are the 'others'.... Engaging with one's child as 'the person she or he is',

however fluctuating her identity, requires more separateness than the early articulations of maternal thinking allow. (Code 1991: 94)

Throughout *Moments of Laughter*, the adult female performer is directed to balance her soundmaking with that of the child, engaging sonically with the child's voice as it is at that point.

In response to the baby's cry the performer emits a joyous welcoming call. (Moment One)

Using the sounds typical for this age (such as "da" "wa" "ma" "na") gives the performer the opportunity to explore her own vocal pitch range. All this should happen in a playful manner, as a type of playful "dialogue" between child and female performer. (Moment Two)

The performer can use the child's voice as cue for some of her own vocal sounds (Moment Three)

When the child says "dadado" it is important that this is not covered up by the performer's voice. (Moment Four)

The performer's and the child's voice connect only on a tonal level not in terms of musical "style"... It is important here to keep a balance between the two female voices interacting with each other and the child's voice, i.e. the performer's voice should have the same intensity as the female's voice on tape. At no point should the presence of the child's voice be forgotten or covered up. (Moment Five)

The performer's words should be bouncing off the child's words, but they should also come from "inside." (Moment Six)

Whatever the performer decides to do should happen in interaction with the tape, never competing with or covering up the child's voice. (Moment Seven)

A pause must be left in two places where the child says: 1) "the smart little pig/he was very smart/was very smart..." and 2) "that's the end of you old wolf." Everywhere else the performer can use her own discretion of how and when to place the phrases. (Moment Eight)

The idea here is to create the reverse situation of Moment One: there the female voice contained with its structured tune the baby's primal vocal techniques, here the child contains with its structured tune and language the female's extended vocal explorations. (Moment Nine) (HW: score)

These directions to the performer differ from moment to moment, at times emphasizing connectedness with the child through dialogic improvisation, at other times moving towards more detachment through the use of contrasting musical styles or delivery.

Throughout the piece, the performer is never intended to overwhelm the child's voice with her own: she is to aim for balance as much as possible, indicating a respect for the child's voice and position, while maintaining different positions in relation to her. This dialogue acknowledges the importance of mother and child to each other as second persons, while allowing their identities to shift interdependently.

The performer is both mother and not-mother,¹⁶⁰ as Homi Bhabha says of a character in another production, "the mother's simulacrum, at once a symbol of her presence and the sign of her absence" (1992: 61). Remember the teenage girl who said this piece made her miss her mother? This being mother and not-mother simultaneously complicates the private-public distinction further: the performer is a symbol of motherhood, a shifting symbol at that, as well as a sign of [real] absent mothers.¹⁶¹ I can only agree with Minfe (51f, Indian, individual contact), who says:

Worthy of more attention. No one has, as far as I know formulated such sounds of a baby so closely. I would like to interpret with my soprano voice this vocal score. For my fun—would anyone else like to listen to it? I wonder!

Certainly, performing this piece was physically, intellectually and emotionally demanding as well as fun. Playing it for a variety of listeners brought me to realize the complex and important issues that it explores, especially regarding the strong boundary that still exists between private family life and public performance. Not only has no-one "formulated" the sounds of a baby so closely, no other composer has explored musically the positions of a mother in relation to a child in quite such a complex way. The emphasis on a musical dialogue between performer and tape, and the wide range of sounds voiced by the child make it challenging to perform and remind the performer of the value of listening to children's voices. Because it tugs at the walls of the family home, it excites more emotional responses than with other works, and in some cases more hostile responses. In others, listeners thought of their mothers or families with greater appreciation. Each time I presented it, people talked of recording the voices of their

¹⁶⁰ Perhaps this is part of the reason I was drawn to performing this piece: in my position as mother and not-mother, it was in some ways similar to my position as a non-custodial mother.

¹⁶¹ When I performed this piece, people often thought it was my piece, even though I had included program notes listing it as Westerkamp's. To complicate matters further, when I performed it with *Coiled Chalk Circle* and a young girl was in the audience, (Taylyn, the daughter of my friend Kate) some people thought that she was my daughter. I am reminded of the woman who said that she only likes baby babble when she is with the baby: there is an emphasis on authenticity in relation to motherhood: people wanted me to be a real mother, to have a real daughter who was present.

children, and some women pored over the score, announcing that they would like to perform this piece.

Chapter Nine

Breathing Room and the Twofold Pressures of the Cyborg Body

Theorists in the areas of feminist aesthetics and epistemology discuss a contradictory stance which characterizes feminist work with technology. Teresa de Lauretis, in her discussion of feminist cinema, claims that a contradictory stance is specific to feminism. She describes it as:

a twofold pressure, a simultaneous pull in opposite directions, a tension toward the positivity of politics, or affirmative action in behalf of women as social subjects, on one front, and the negativity inherent in the radical critique of patriarchal, bourgeois culture, on the other. It is also the contradiction of women in language, as we attempt to speak as subjects of discourses which negate or objectify us through their representations (1987: 127).

As de Lauretis describes it, feminist artists are in a constant state of tension, equally pulled in two quite different directions, attempting to affirm a range of different creative approaches while criticizing existing cultural assumptions that are represented in contemporary language.

The discourses of technology are particularly objectifying, representing the relationship between artist and work as one of gendered power and control. I have written elsewhere about how music technology magazines appeal to stereotypically masculine imagery related to sports and war to define their community (McCartney 1995). Working within this technologically musical community puts women composers of electroacoustic music in a seemingly contradictory—and often uncomfortable—position: they are at once represented as the object of control and the subject exerting it.

What can one do in this uncomfortable situation? To resolve the contradiction would be to sway one way or another: to take a stereotypically masculine position of control over

the world, and deny a connection with feminine qualities, or to take a stereotypically feminine position of connection with the world, and deny a connection with masculine qualities. Neither of these positions would work for very long, since the composer is still a woman working with technology that is represented as facilitating control over the world. There is another alternative. In her "Cyborg Manifesto," Donna Haraway says that the strategy of irony acknowledges contradictions without attempting to resolve them:

Irony is about contradictions that do not resolve into larger wholes, even dialectically, about the tension of holding incompatible things together because both or all are necessary and true. Irony is about humour and serious play. It is also a rhetorical strategy and a political method.... At the centre of my ironic faith ... is the image of the cyborg. (1991: 149)

Haraway's cyborg is a mythical being, part organic and part cybernetic. It cannot dream, as humans sometimes do, of a return to organic wholeness, because that is not its history. It is fashioned from both machine and organism, what Western philosophy trains us to imagine as radically separate: man and machine, nature and culture. The cybernetic and organic parts of a cyborg's being must exist, somehow, together.

The Cyborg Body of *Breathing Room*

The image of an ironic cyborg is evident in Hildegard Westerkamp's short tape piece *Breathing Room* (1990), which is explicitly concerned with breathing, structured around the breath, bringing together bird sounds, water sounds, and machine sounds, constructed technologically.

Westerkamp's ambivalent feelings about technology are evident when she speaks of the electroacoustic studio. On the one hand, she describes it as a place where she can give her creative voices room to breathe, and is protected from the outside world. She says:

The studio environment has provided me with a “niche” where I could find my own creative voice without interference from the surrounding social, cultural context ... Since it has always been hard for me not to give external voices more power than my own inner voice, this was an important stage for me—and, given my socio-cultural background, this separateness may to some extent always remain an important part of my creative process. The sound studio has taught me to be in touch with that inner voice and to believe in it. In my electroacoustic compositions my inner voices speak.... I would go as far as saying that these isolated places are perhaps the urban person’s replacements for wilderness experience, places where one can play/work undisturbed and uninterrupted—at a distance from daily life. (Westerkamp 1988: 133–4).

Particularly intriguing in this quote is her description of the studio as like a wilderness setting in its peace and privacy — a natural image applied to a technological location. At the same time, Westerkamp also speaks of the studio as a stifling environment, where she finds it difficult to breathe:

I really hate to go into studios, because of that health aspect.... You know, my back aches afterwards, I'm not breathing properly, I just simply feel very tired and exhausted. And I actually experience it as a huge contradiction to what I'm trying to do in the pieces. It's the same with the... performance spaces... [they are] controlled environments. And yet when the pieces are playing, they open something up in the audience, they open something up in me. They're saying something about place, about environment, about ecology, and about acoustic balance in our lives And yet the contradiction is not gone (Westerkamp interview with McCartney, 1993).

So the studio, for Westerkamp, is at once an expansive and an enclosing space, where her creative voices have room to speak, but where she eventually has trouble breathing.

Similar comments are also made by other women composers that I have interviewed.

They speak of pleasure in studio work and possibilities for developing new languages of expression, and at the same time, they criticize the patriarchal ordering of the studio, where minds command sound and bodies are neglected. Susan McClary writes that Laurie Anderson, too, is at the same time fascinated with technology, *and* critical of its alienating influence (1991: 137).

This ambivalent stance towards technology is given voice in *Breathing Room*. This piece is particularly important as an index of Westerkamp's style because of the request that the producers made of the participants on this CD. They asked Westerkamp, one of two women out of twenty five composers involved in the project, to produce a work that summarized her style in three minutes.

Westerkamp's style is characterized by an approach to soundscape composition which is particularly concerned with the subjectivity of the recordist/composer in relation to the sounding environment. Westerkamp insists on her bodily presence through her work. In the liner notes for *Breathing Room*, Westerkamp says:

Music as breath-like nourishment. 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).

Her desire to create a breathing environment within musical space is influenced by her contact with American experimental composer Pauline Oliveros, who influenced her compositional practice, teaching techniques and approach to listening, as I discussed in Chapter Four.

Musical Structure: Breathing in the Studio

The request to encapsulate her style in a three minute piece created a difficult task. And to complicate matters, at around the same time, she had been commissioned to create another piece. This one was to be a response to the 1989 Montréal Massacre, in which a sole gunman killed fourteen women engineering students at the École Polytechnique, an engineering college in Montréal, calling them feminists. Westerkamp's schedule at this point was frantic, and she found the Montréal Massacre an important and difficult subject. Both commissions initially seemed challenging.

Westerkamp responded by creating breathing room within these difficult demands. One day, she lay down on the studio floor and breathed deeply for nine minutes. She recorded this interlude of relaxed breathing, then used it to form a rhythmic structure, adding a mechanical, repetitive pulse. Over these rhythmic pulses, she layered reworked material from earlier pieces, using this opportunity to reflect on her previous work. This method then formed the *Électroclip* piece, and later became the basis for the beginning and end

sections of her piece about the Montréal Massacre, *L'École Polytechnique*, in which breathing is gradually interrupted by more and more ominous sounds, then eventually returns in hope for continuing life at the end.

The choice of one's own breath as a compositional structure is a radical one, for a number of reasons. Frances Dyson points out that philosophers since Plato insist that proper voice can only be produced by "barring" the breath:

The coming and going of life which the breath represents brings the inevitable mortality of the body too close to the voice It interferes with the smooth functioning of the voice of the mind—that bodiless instrument which continues to speculate and reflect uninterrupted in the mind's I/eye for all eternity. It allows death, absence, to touch the light of reason and the vision of the soul. (1994: 175)

The sound of breath is a constant reminder of our mortality, our physicality. Susan McClary notes that "a very strong tradition of Western musical thought has been devoted to defining music as the sound itself, to erasing the physicality involved in both the making and the reception of music." Electronic composition, with its ability to eliminate performers, can potentially form the extreme of this idealist trajectory (1991: 136). But in *Breathing Room*, the composer insists on her bodily presence through her own voice.¹⁶² With each breath, she creates the illusion that she is breathing in sounds—the sounds of water gurgling, of birds singing, of an airplane passing overhead, of windchimes. The mechanical 'heartbeat' pulse, fading in after about thirty seconds, continues throughout, fading from foreground to background at different points in the piece, but never disappearing.

¹⁶² This strategy was dismissed by one reviewer in a Toronto newspaper, who says that Westerkamp "shapes her *Breathing Room* with exhalations and hearbeats, a strategy that seems more interesting in theory than in her practice" (Everett-Green 1990: C4). This is the only negative comment made in the entire review, which ignores the only other woman on the compilation by 25 composers, and praises several of the male composers' work as "aggressive," "fiercely protean," or "hefty."

The use of breathing as a compositional structure reflects Westerkamp's respect for the acoustic environment as active and alive, and in dialogue with her as a composer. By creating the illusion of breathing in sounds, Westerkamp makes tangible the function of the breathing tract as a conduit between the body and the environment. Robert Fried says: "Breathing brings us into intimate communion with our environment. We can think of the lungs as *external organs*, always exposed to the atmosphere" (1990: 8). Westerkamp expresses her sense of respect for the environment through refusing to think of sound as merely a compositional resource. At the same time, she is not limiting herself to documenting nature. Her studio work is a dialogue between the original sound in context and her imaginary constructions. Above all, her approach reflects a responsibility to the natural world, and a desire to avoid completely effacing it with technology, allowing sounds to breathe within their own environments, while creating imaginary constructs that juxtapose different contexts.

Breathing Room Analysis

General Description

Breathing Room is a 3-minute tape piece, using both acoustic and synthetic sounds. It has an approximate pitch range of 4 octaves, and noisy (unpitched or timbrally complex) sounds predominate. It moves at a slow tempo, structured by the irregular rhythm of the fifteen breaths that continue throughout the piece. Each breath is separated by a space (at first silence, then filled with processed and synthetic sound). The piece becomes thicker in texture, and reaches a point of maximum density at the tenth breath, decreasing in timbral diversity and density after this point. In this way, its shape can be said to resemble the shape of a single breath. I have analyzed four breaths below in detail, to demonstrate the shape of the piece. *Breathing Room* is on the CD ROM presentation in its entirety. The audience can choose between listening to the piece accompanied by Westerkamp's score and my transcription, presented next to each other; listening to it

with listeners' comments shown simultaneously; or listening with a presentation based on the places imagined by listeners.

Breath 1 (0:01)

This section has a narrow pitch range (3 octaves) which is higher than in later sections. There are only three different timbres (breath, water, birds), followed by silence. The timbral content of the section is more noisy than pitched, since only the bird sounds have defined pitch, while the breath and water sounds are more complex. Dynamics range from *p* to *mp*. The breath has a quiet inhalation, and an open-mouthed exhalation, which is louder, and rises in pitch. The point of greatest dynamic/timbral diversity/vertical density is towards the end of the inhalation. The inhalation is short (2 seconds), followed by a longer exhalation (4 seconds), and four seconds of silence.

Breath 4 (0:35)

This breath has a broader pitch range (approximately 4 1/2 octaves), and more pitched material (processed sounds, birds, airplane, mechanical beat). There are two noisy sounds: breath and water. There are six different timbres, so the breath is more dense. The inhalation is loud and long (5 seconds), followed by a quieter, shorter exhalation (4 seconds). This breath is less audible than the first, and the other sounds are louder. It is followed by 5 seconds of just the mechanical beat and short processed sounds. The mechanical beat maintains a constant pitch of Eb2 throughout. The airplane is just above E3, and short processed sounds Eb4-E4. The bird sounds are clustered in a range from two to three octaves higher than the other sounds.

Breath 10 (1:50)

The pitch range is approximately the same as breath 4. This is the breath with the greatest timbral diversity, with nine different sounds: breath, mechanical beat, water, june bug,

airplane, wind chimes, rattle, long and short processed sounds. The breath is loud on both the inhalation and exhalation, with the mouth moving on the exhalation, where the pitch rises. The inhalation is 4 seconds long, exhalation 3 seconds, and a 4 second section with only processed and mechanical sounds. This is the only time that the rattle appears in the piece. The wind chimes are in the same approximate pitch range as the earlier bird sounds.

Breath 15 (2:47)

Here the timbral diversity has again been reduced to four sounds: breath, mechanical beat, wind chimes, short processed sounds. The pitch range is about the same as for the fourth breath. There is a long, quiet inhalation (5 seconds), followed by a shorter, quiet exhalation (4 seconds), and a section with just the mechanical beat and short processed sounds. The mechanical beat continues to maintain the pitch of Eb2. The airplane is between Eb3 and E3. The long processed sound is at a pitch of A4, while the short processed sounds are close to it in pitch, rising from F3 to Gb3. The windchimes are several octaves higher, in the same pitch range as the earlier bird sounds.

Listener Responses

When I first heard *Breathing Room*, I was struck by the feeling of intimacy that I experienced on hearing close-up breathing. The interplay of environmental sounds intrigued me, as well as the gradual movement from air to water, the complexity and density of the sound world that was produced. I also felt vaguely anxious.

This last sensation confused me somewhat, leading to a decision to analyze the piece so that I could understand this response more clearly. I solicited the responses to *Breathing Room* of a range of listeners. Some of these were Canadian composers, both men and women. Some were people who said that they rarely listened to electroacoustic music.

These two groups both listened to the piece on tape in their homes, and wrote open-ended responses to the piece. I also played it for four university classes: a graduate class in Women's Studies, a graduate class in Musicology, an undergraduate listening class for non-Music majors, and an undergraduate class in electroacoustic composition. Only some listeners decided to submit their responses. Each of the class members wrote open-ended responses on paper. None of these listeners were given any program notes until after listening. I asked listeners to complete a questionnaire giving me details about their gender, ethnic identity, age, and background in electroacoustic music. The comments that follow are drawn from these listeners' responses, and from my analysis.

Breathing as Essentialism

Two listeners, both from the Women's Studies class, describe this piece as gendered female. One respondent says: "Birds, breathing, decidedly a female gendered piece." I wonder whether a piece structured by a man's breathing would be described as gendered male, or whether these listeners are reacting to the overly simplistic essentialist equation body=woman or bodily sounds=gendered female? Later, the same listener asks whether the essentialism is intentional. A discussion regarding essentialism followed in the Women's Studies class, with discussants noting that a woman composer working with environmental sounds risks being described as essentialist, whereas a male composer would not. On the other hand, another listener (a man in the undergraduate music class) hears the breathing as a man's: "Vietnam, swamps, birds, soldier—in pain or feeling really exhausted... suspenseful and scary atmosphere...he is a survivor." His image of a soldier in the jungle perhaps leads him to hear a man's breathing rather than a woman's.

Several listeners interpret the use of natural and bodily sounds as more generally stereotyped or hackneyed, creating an essentialized nature. One male composition student praises Westerkamp's layering and spatial composition, then adds: "Cliché [sic] sounds of

birds and breathing hindered the piece." Another male composition student says: "Is this a *Solitudes*¹⁶³ tape? Touristy New Age...back to Nature."

Interestingly, these listeners do not comment on the sounds of airplanes that recur several times during the piece. *Solitudes* tapes would never include such urban sounds. Neither would they include the sound of a person's breathing, since the title *Solitudes* suggests their intent: to create a purified wilderness, devoid of any sounds of humans or cities. Westerkamp does use equalizing and mixing to idealize her sonic world: the airplanes become quieter than the crickets. But they are never erased: the urban world does not disappear completely, but is brought into her idea of balance, closer to the sounds of crickets and birds, with transportation machines more in the distance but still present.

Breathing as Disruption

While many like hearing the relaxed breathing, and feel connected to it, others describe it as annoying or disruptive. One composer says that it disrupts his own breathing pattern. A female composition student says that the breathing "hits you right in the chest." A male composition student reports "The breathing aspect gets very annoying very quick—sounds superficial." It is interesting that all of these descriptions of annoyance or disruption are from people involved in electroacoustic composition (although not all composers have this reaction), and are not mentioned by other listeners. Perhaps, as Frances Dyson (1994) notes with regard to the development of the contemporary radio voice in the radio studio, bodily sounds are still not considered acceptable by many in the electroacoustic studio.

¹⁶³*Solitudes* is the brand name of an extensive series of relaxation tapes and CDs produced in Toronto, Ontario by Dan Gibson. The majority of these productions combine environmental (usually wilderness) sounds with Classical music played on a synthesizer. They are marketed in tourist shops, garden centres, health/New Age shops and record stores.

Breathing as Threat

Sometimes the breathing is perceived as threatening. A Women's Studies student says: "Threatening, relaxation, relief (i.e. hearing relief in the expulsion of breath, but also my own sense of relief that what had sounded like the beginnings of a threatening phone call, a heavy breather, was in fact, simply an amplified track of someone breathing)." This last reaction puzzled me until I realized that most often, when we hear *amplified* breathing, it is stressed breath, either through a threatening phone call, or in the context of television or film soundtracks, where it is often a sign of danger or excitement. The amplification of *relaxed* breathing—something we rarely hear—establishes an intimacy between performer and listener, creating the feeling that we are right next to the composer as she breathes. In many popular media soundtracks, especially in suspense-linked dramas such as horror and thriller films, breathing right behind the protagonist, or the invasion of an intruder through the held phone receiver so that even a breath or a whisper can be threatening, are both examples of intimate bodily sounds used to imply that this kind of intimacy is too close for comfort. I also consider this issue in relation to *Cricket Voice*.

Awareness of Breathing

Those who enjoy the breathing, and I include myself in this group, mention a heightened awareness of their own breathing through the piece. One listener in the Women's Studies class says: "the breath is like surf, inevitable and always but never the same." Several others describe the breathing as relaxed, sensual or meditative. Madame X (41f, grad Dance) says "a sense of peacefulness, relaxation. Yawning; waking up and sensing the space around me." Rusty (26m, grad Music) comments: "Yawns seem a very "human" touch—there's a human spirit here among other spirits—yawns are how the breathing, which summons, is grounded. A very reassuring space, without seeming naive." The

breathing, and especially the yawns, is perceived by these listeners as a reassuring human presence, and an invocation to sense the surrounding world.

Caffe (21f, Waterloo theory) responds "sometimes it's hard to tell if you're hearing the wind or someone's breath." The association of environmental sounds with breathing reminds this listener of the similarity between air moving outside the body in wind, and inside the body in breathing.

Beth (23f, Waterloo theory) says "I'm not particularly fond of listening to breathing in class—find it too erotic." This raises the issues of intimacy, and the bringing together of public and private realms, which characterize many of Westerkamp's works. As in *Moments of Laughter*, Westerkamp brings intimate bodily sounds out into the open with the aid of amplification. A private moment of meditation and centering is made public through its composition and publication on CD. For some, this public intimacy is uncomfortable.

Mechanical Heart

Not all of the sounds are breathed in. Another source of tension for some listeners is the mechanical pulse, which Westerkamp refers to as a heartbeat. A student in the undergraduate listening course juxtaposes the following words: "outside—river: power plant? heartbeat? illness, impending doom, struggle, extinct." A male composition student says: "Pulse in background creating tension from the foreground relaxation. As the pulse gets louder it creates a worry and stress within."

More extended listening reveals reasons for this worry and stress. Several listeners, including Westerkamp, refer to the pulse as a heartbeat. Yet this is a mechanical heartbeat, with a regular rhythm, unlike organic hearts. When someone is relaxed, their

heartbeat rises slightly with every inhalation, and falls with each exhalation (Fried 1990: 156). Pulse rate tends to be more regular in stressed breathing, and a very regular heartbeat is considered a symptom of heart disease. So the regularity of the mechanical heart can be interpreted as a sign of stress.

Also, there are only fifteen breaths in the three minute piece, a very relaxed breathing rate. Yet the pulse is much faster, 140 beats per minute, suggesting much more activity. The pulse is insistent once it begins—it never completely disappears, and the tempo never changes. The only fluctuation is in dynamics. As I listen to the piece, I find that my feeling of tension is directly related to how loud the pulse is, how close to the foreground. A male composition student comments: "My heart beats seem to get quicker. Feeling very anxious, waiting for something to happen." As I type this, I notice that my computer is producing a regular pulse that becomes louder as I listen. How is my body responding?

Abstracted Sounds

Abstracted or processed sounds are the last to be introduced to the piece, starting at around 35 seconds. These sounds come from two sources: fiddle-playing, and a truck brake. They have been slowed down to alter their character completely, producing gradual evolutions in timbre and pitch, and a feeling of amorphous shifting through space. Only one listener referred to these sounds, saying: "superimposed pitches create a feeling of expectation." Perhaps listeners who only hear the piece a few times do not comment on these sounds because of their subtle presence: they are rarely foregrounded. On repeated listening and analysis, however, these sounds seem more important. They form a harmonic bridge between the mechanical beat and the environmental sounds, at times forming restful octaves and fifths, at other times more complex harmonies (see analysis). They also form polyrhythms with the mechanical beat, making it seem less relentless. Although they continue between the breaths, some of the shorter processed

sounds join dynamically with the environmental sounds, and are inhaled. Westerkamp considers work with sounds like the truck brake to be a political act:

When you know a sound, or when you know how something works and how it affects you, it is already the beginning of action. Then you can begin to deal with it. Then you can decide whether or not you want to wear ear plugs ... When I hear a truck brake and I say, "that's fantastic, I want to record it," then I'm not as disturbed by it. When there is a political issue and you don't want to know about it, it's actually much more energy to block it out, than to ... take it on and begin to act. It's like breathing again. (Westerkamp, as quoted in Young 1984: 7)

When Westerkamp begins to work with a sound, she is not as disturbed by it because she is already starting to do something about the disturbance by bringing listeners' attention to it. To begin to act in this way is like breathing again, whereas to block things out is like holding one's breath until a disturbance passes. For Westerkamp, the metaphor of breathing is an important one, and the act of breathing is a focus, meditatively, compositionally, politically and in moments of anxiety as a centering force.

Different Places

For many of the listeners, the imagery associated with this piece is related to memories or fantasies of different places. Westerkamp's work here is not associated with a particular place in the liner notes, as for instance with *Cricket Voice*, *Beneath the Forest Floor*, or *Banff Razzle-Dazzle*. However, because she appears to breathe in all kinds of environmental sounds, I have always imagined a sound studio in the middle of a forest, close to a city but not part of it, where instead of reaching out to sounds on a computer screen, Westerkamp transforms and juxtaposes them by taking them into her body.

Several listeners speak of inner body places. Shona says "In the womb." Eve Angeline says "life within woman...inner world," while Jean feels she is "being brought back into

my body after having to have left it previously in order to survive." Ishmael relates the bodily sounds to pregnancy: "Pre-natal exercises in the woods."¹⁶⁴

Some listeners focused on movements between elements, between different environments, or from inside to outside, likely inspired by the movement of air in and out of a breathing body. X: "We're travelling like the air, from inside the beings to the outside backyard." Yorgay remembers his home on the prairies, and a journey into forest: "me in my bed back on the prairies... spring sunlight. Shadows, undergrowth as I advance into the tall deciduous forest. Unafraid presence of other beings or spirits." Mark experiences a movement from water to air: "Natural, like swimming ... underwater then up into the air."

Others experience outside locations, usually rural or wilderness. Dave thinks of "relaxing by a brook." Jane: "hot sun and water in the forest by a river." Charles: "an open field, blowing grass." Madame X: "walking through the woods." Sam: "early morning in a rustic setting." All of these places are similar in their seeming peacefulness and openness.

Some other listeners heard environments that were not as clearly natural or spacious. Y moves from a natural setting to a huge industrial transformation of it: "outside...river-- power plant?" Elizabeth also begins with a serene setting, then shadows move in: "ocean, floating...reeds that blow lightly in the sun. It is now getting darker as the clouds come in and there are animals swimming through the reeds." Several people begin with serenity, then move to a darker vision. For instance, Ishmael, who began with an image of birthing exercises, moves to imagery related to death: "Prenatal exercises in the woods. (Send in the loons). No. Make that Margaret Atwood Murders in the Dark soundtrack. Nope. I

¹⁶⁴ This is possibly (indeed likely) an ironic response.

dunno. It's off-putting." His "send in the loons" comment may indicate an initial discomfort with the stereotyped femininity of pre-natal exercises in the woods, which is followed by an equally deep discomfort with the foreboding associated with Atwood and darker feminist visions. In the end, neither image satisfies him. XX also begins with an innocuous vision, "At the seaside," followed by "When someone's falling asleep, she or he starting to have a kind of nightmare." For Zel, the image is only of a dangerous place: "Vietnam, swamps."

The most developed place image is from one of the listeners in the Women's Studies class, who wrote a poem about the piece.

Waking up in a tent up north
Birch Island
Railroad tracks cross
between tent and water
Cross over Mother Earth

Steaming breath of night in tent
Steaming between us and the Water Being
The insects nearby buzz
Drowning out the train

Perspective
The near and far
The dear and the dangerous
Open the flap - the train has passed
Sun rises over water - waves
I breathe in the shining breeze.

--Women's Studies 2

This poem brings together many of the issues raised by other listeners. There is an encounter here between nature and culture in the listener's imagined place. It is in a tent up north, with train tracks crossing between where the poet sleeps and the water, which is

a spiritual source, connected with the water being. Nature is more sonically powerful than technology: nearby insects drown out the train, just as with Westerkamp's insect sounds that are louder than airplanes. The poet is aware of the near and the far, the dear and the dangerous. Eventually, she achieves the moment that she wants, as the train has passed and she breathes in the shining breeze.

Westerkamp metaphorically inhales and exhales environmental sounds, creating a sonic construct of her relationship with the world around her. There is a sense here of an interaction with a living, breathing world, where she can learn from ravens and crickets, and truck brakes, representing what she learns in compositional dialogue with the environment: "Music as breath-like nourishment. Breathing as nourishing musical space." In *Breathing Room*, Westerkamp creates a cyborg body, with her own human breath taking in and singing the world around her, propelled by a mechanical heart. This is not a border skirmish between human and machine, or human and environment. Haraway says: "The machine is us, our processes, an aspect of our embodiment...We are responsible for boundaries, we are they" (1991: 180). Westerkamp uses technology to create a body of work that makes audible to listeners the breathing connections between inner and outer worlds.

At the same time, this cyborg body is still ironic. The mechanical heart, for instance, while metaphorically part of this body, is more rigid, and less organic, than the other sounds. So while it forms part of the cyborg body, its rhythms seem somewhat alien: mechanical heart and organic breath coexist in an uneasy tension.¹⁶⁵ Listeners hear

¹⁶⁵ Westerkamp, when reading this chapter, wrote beside these words "Factory?" She says "It made me wonder whether my living inside a factory for the first four years of my life and playing in it for another six or so years had some influence on this: I was playing partially in a most beautiful park-like environment which was part of the factory grounds and partially snuck with my cousins into the machine halls and offices, where we were not allowed to go but had great adventures."

both relaxation and stress, what one respondent refers to as "the dear and the dangerous," and those contradictions never resolve.

Related Works

École Polytechnique

Westerkamp adapted the tape of *Breathing Room* for use in *École Polytechnique*, a work scored for bass clarinet, trumpet, piccolo trumpet, percussion, the church bells of the Eglise St.-Jacques at the University of Québec, mixed choir and tape. The piece is dedicated to "the fourteen women killed violently at the University of Montréal, December 6, 1989." It was composed in 1990, like *Breathing Room*.

Westerkamp was invited to write a composition for New Music America 1990 in Montréal. *École Polytechnique* is the resulting work.

[A]s a woman and composer I cannot remain silent about this event and the impact it has had on myself and many others. I want to "talk back" to it. I also want to make room to remember it, to feel what needs to be felt, to breathe, to heal, to hope, to transform energies, and to understand the work that is ahead of us. I invite all listeners to take full advantage of this twenty-minute time-span of **École Polytechnique** (a lot longer than it took Marc Lepine to kill fourteen women) to listen inward and search for what is sacred, what cannot be compromised, what cannot be allowed to be killed inside us and therefore not in the world. **École Polytechnique** is meant to provide the sonic/musical environment for such a journey inward.

This piece is also about life and death in a more general sense. It is about human life rhythms, their violent destruction—destroyed with the same kind of violence that creates wars, kills people, abuses children and the natural environment; a violence that is born through violence, where experience of human warmth, compassion and love is missing, where nothing is sacred or worth protecting—and it is about the recovery from such violence, a process of healing. (HW: *École Polytechnique* score 1990: 2)

The tape part of *École Polytechnique* is very important in that it provides an overall structure, and instrumentalists and choir are intended to use it to cue various parts of the piece.

The tape's function is twofold: to provide the overall shape and meaning of the piece and to provide the movement, pace and rhythms for the live performers. In order to facilitate the intense interaction between tape and performers that is desired for this piece, performers must be intimately familiar with the tape part. (This includes the choir director and the choir). In fact, each performer should use the tape rather than the

other performers as a point of orientation because all instrumentalists as well as the bells and the choir perform quite independently from each other. (HW: *École Polytechnique* score 1990: 2)

The tape part begins with audible breaths, as in *Breathing Room*. One difference in this work is that the mechanical heartbeat is heard from the beginning of the piece. The choir is directed to breathe in unison with the tape. Gradually, more and more ominous sounds are introduced along with the breathing until, at 6:00, the first gunshot is heard on tape, accompanied by newscasts about the killings, which continue until 8:20. Birdsong and water sounds continue on tape until 13:00, when breathing sounds are gradually introduced once again. The tape part from 16:00 until the end of the piece is similar to *Breathing Room*, with environmental sounds integrated with each breath, and the mechanical heartbeat beginning again at 16:25.

Live Parts

Westerkamp notes that the church bells appear to be tuned to A 435Hz rather than A 440Hz.

As a result all bell pitches will sound slightly out of tune with the choir and the other instruments in the ensemble. No attempt should be made to correct this as this discrepancy in tuning creates exactly what is desired: tonal frictions and musical tensions. (HW: *École Polytechnique* score 1990: 2)

The choir is asked to collect small, round, smooth rocks in the region where the piece is performed (in this case, Montréal). Each choir member is to hold two small rocks.

In the first section, the choir starts with two audible breaths, then sings one long uninterrupted chord, starting with B-flat and F and gradually developing into a multi-note cluster, with staggered breathing, creating a drone that undulates in amplitude, with a crescendo as each breath on tape recedes, and a decrescendo as a new breath is heard. The instrumentalists are asked to perform similar amplitude changes, so that the breathing on tape is always audible. Westerkamp encourages choir members to explore their own breathing rhythms, since unison is not a goal.

In the second section, beginning with the first shot, the choir is directed to scream first in shock, then in horror, disbelief, etc. The last shot is followed by urgent breathing and whispering. The rocks are struck together by the choir members throughout this section to provide a high frequency sound in tandem with the explosions on tape.

After the final shot, the choir speaks the names of the fourteen women in unison and as clearly as possible. Beginning at 13:00, the choir begins to breathe in unison with the tape, with an emphasis on the outbreath. After the first breath, the choir is directed to produce a whispering or humming sound with the outbreath. In the last section, from 16:10, the choir is directed to sing one chord, with staggered breathing, as in the beginning. However, this time, they move from a multitone cluster to a single pitch (B-flat, played by the trumpet beforehand). They then expand to a four-note chord and finally end on B-flat and A (which would effectively surround the pitch of the church bell—since it is playing a B-flat).

Listener Responses to *École Polytechnique*

The original performance of *École Polytechnique* received a number of reviews in both French and English press. In addition, I played this piece for a Grade 10 boys' choral music class at North Toronto Collegiate Institute. I had arranged to play some of Westerkamp's work at this school, and the teacher had asked me to choose two works including singing: I played *Moments of Laughter* for the Grade 10 girls, and this piece for the boys. In the class, I introduced the piece, reading Westerkamp's program note. Many of the students were unaware of the Montréal Massacre (they would have been only six or seven when it happened). I also discussed the meanings of the terms "electroacoustic" and "soundscape."

One student (Junior, 14m) was confused by the type of music, and the use of environmental sounds as sources. "I think the music is strange, and I don't know why they put so many sounds in the background. Please explain." However, many of the other students appeared to understand the use of environmental sounds. Many listed the sounds used, suggesting what each might symbolize, as in the following response:

The continuous beat in the background is describing the person's heartbeat and the breathing sounds of the environment around you represent the people's lives slowly fading away. The churchbells, also in the piece symbolize the death and passing on of the 14 women. Sounds heard in piece were: church bells, news reporters, dolphins, birds chirping, breathing, symbols, whales, trumpet, police siren, people chanting, heartbeats, a choir singing.

Overall I thought that the piece of music really caught the effect of a sudden tragic occurrence. The heartbeat at the beginning makes the listener think that something bad happened from the start and the churchbells around the end of the piece is the coming and going of death. (Cream Puff Daddy, 16m)

Lestat (15m) describes the music as soothing:

Breathing, water, electricity, water again, news broadcasting, birds, church bells, trumpet, fire truck, whales, heartbeats, cat or monkey, the breaking of sticks.

Overall I think that this type of music is very soothing to me. It is this type of creativeness that will advance music and bring music to a higher level.

This was the only student response that described this piece as soothing. This was also the only composer in this listening group. His description of the piece as soothing seems related to some of the commentary made by press reviewers of the original performance, in which reviewers focused on the importance of the piece to Montréalers, who were shocked by this massacre that happened in their city. For example, William Littler of the Toronto Star comments "An evocative score in any context, "École Polytechnique" seemed to speak with special poignancy to the Montreallers who witnessed its premiere.

In a sense, it spoke for them" (1990: 6). Littler notes that this performance is particularly evocative for Montréal residents at the time, several months after the tragic murders.

Carol Bergeron of *Le Devoir* says:

L'oeuvre de Hildegard Westerkamp fut de ce programme, incontestablement, le moment le plus saisissant, le plus émouvant aussi. Si cette musicienne de Vancouver a préféré l'usage d'un langage simple et direct, ce langage n'en demeure pas moins imprégné d'une authentique qualité sonore. (1990: 8)

The work of Hildegard Westerkamp was of this programme, unquestionably, the most striking moment, the most moving as well. If this Vancouver musician preferred the use of a simple and direct language, this language remains saturated with an authentic sonic quality (my translation).

Tamara Bernstein says that the performance "taps into ancient lamenting traditions, with their cathartic and healing functions that historically served both the individual and the community" (Bernstein 1993: 20). Bernstein notes how the structure of the piece leads people from individual grief, through a communal outpouring, and back to an individual healing.

The choir brings us back to the outer, communal world by speaking the names of the victims, accompanied by tolling bells. As the ordered recitation grows louder, the choir disintegrates into a multitude of separate shouting voices. Westerkamp then takes us into a meditative musical space punctuated by soft, random-sounding cries from the instruments. Life gradually returns with the sound of water, a few birds, gently tolling bell, and once again the heartbeat and breath, accompanied by the soft sustained sound of the choir. (Bernstein 1993: 21)

For Bernstein, this movement from individual to community and back again is an important facet of the healing function. This movement from individual to community is also discussed by Kim Sawchuk in a radio interview with Westerkamp from the same time:

Because I live in Montréal, I found it disturbing and moving. There has been a deep scarring on the public: it's not gone away; it shouldn't be

erased ... I thought your composition and its setting, which created a gathering of people, was one appropriate way to work through one's painful contradictory feelings. It stresses the importance of individual life and community life in the midst of this violence. (Sawchuk 1990)

For Sawchuk, the scarring on the public from this event continues and should not be ignored. Westerkamp notes that others have found the piece disturbing as well, but have not wanted to work through such painful feelings. This is particularly difficult for choristers who are performing the piece:

[some choristers] find the difficult emotions very hard to deal with and perhaps feel invaded by it. Listeners have also reacted to it that way: "Why stir everything up again?" (email with Andra McCartney, February 1, 1995)

Kathy Kennedy's Choeur Maha performed the piece several years later, again in Montréal. She comments on her choir's reaction to the piece:

My choir, who are doing it this year, are continually in crisis about it, and every rehearsal is a group discussion. Last night at rehearsal people's reactions were just SO strong to this piece. Unlikely members being really emotional ... me too, I guess.... as a group we've torn it apart from every motivational, musical, social, political, logistical aspect. (Email with Andra McCartney, December 2, 1994)

Ozzy (15m), one of the student listeners at North Toronto Collegiate, says "it sounded very dark and demonic. I think it was trying to bring out the sadness of this event that took place from this shooting of the 14 women. I didn't really like it. I thought it was too scary." He was the only one of twelve who had this strong a response, although others mentioned that the piece was sad or upsetting.

Breathing Room and *École Polytechnique* share more than similarities in the structure of the tape music. They also share a common movement between realms, where inner bodily sounds such as breathing are amplified and become public, and environmental

sounds are taken into the private body. The choral piece also explores a movement between individual and community life. For some, this movement in the context of such a traumatic event is too painful: for others, it is necessary because of the nature of the event.

Other Breathing Rooms

Between 1989 and 1991, Westerkamp wrote two other pieces in the Breathing Room series. The first, written in 1989, is called *Breathing Room II*, for tape, bottles and audience, as well as for "The Guest," a sound sculpture by John Clair Watts. This piece was performed only once.

Breathing Room 2 was created originally for a specific occasion: a concert at the Surrey Art Gallery. It was the opening piece. The tape is simple: wind sounds from the Zone of Silence and pitches blown on tuned bottles. When the audience bought their ticket they were handed a tuned bottle. I introduced the piece as a way to catch one's breath and get into the listening space of a concert, had them practice blowing on the bottles a bit and then encouraged them to use the piece as a type of sonic meditation, encouraged them to breathe consciously and calmly (not to hyperventilate) and if they felt so inclined to blow into the bottle on their outbreath. I then went around with a microphone and recorded some of them close-up, creating a type of live mix with the tape. At that time there happened to be a sound-sculpture in an adjacent space in the gallery that I had close-miked because it also had a type of breathing rhythm. So those three sound sources made out the mix at that concert. I have never repeated that. It worked really well.

The original idea for the tape part came from my experience of building a sound sculpture in the Zone [of Silence]. (Email from Westerkamp to McCartney, April 1999)

In Chapter Seven, I describe Westerkamp's process of building this sculpture, and how it was a way for her to exorcise the drunken noise that had disturbed her. This piece brings the very individual, almost lonely experience of building a sound sculpture in those circumstances into a public place, a concert. Having experienced the calming effect of blowing on a bottle to produce a pitched sound, Westerkamp decided to pass on this experience of calm and meditation to the audience as an introduction to the concert.

Breathing Room III - A Self-portrait was composed in 1991. This piece, for spoken voice and tape, recounts various experiences from Westerkamp's life until that point. I use the

text of *Breathing Room III* as the basis of my discussion of Westerkamp's life in the Chapter Four of this dissertation. In performance, the text is accompanied by a tape part.

The piece has two parts. It starts out with seven minutes of water sounds [which predominate in the mix], seaplanes in the distance, drones, and plucked strings. The tape encourages me to warm up my voice as I lie leisurely in a hammock (not really facing the audience). This opening section is very important for me as the performer of the text. I found that in order for me to perform those words I really needed that warm up so I don't break out crying in places or feel totally neurotic. So, as the hammock is one of the most creative places for me - a type of womb environment in which I can relax and at the same time get the best ideas; a lot of my texts were written there in lightning speed - I thought it would be a good place for me to begin the piece. (Email from Westerkamp to McCartney, October 21, 1998)

This warm-up section of the piece is similar to the first minute of *Moments of Laughter*. In that case, the performer is directed to breathe deeply as the child's voice on tape introduces the piece. Both works are emotionally demanding, and Westerkamp in each case uses the initial moments of the piece to give the performer an opportunity to ground herself.

Then I get out of the hammock, face the audience and a synthesized waltz starts over which I speak the text. Each paragraph fits the length of the waltz. After I have spoken the text, I turn my back to the audience, and turn to face them as another persona (according to each age mentioned). And each time the waltz is slightly different. (Email from Westerkamp to McCartney, October 21, 1998)

Again, there is a parallel with *Moments of Laughter*, in which the performer's identity shifts as the child on tape ages from birth to seven years, and each identity is associated with different music.

[The waltz] is such a weird piece of music and yet deeply emotional for me. It has that edge of circus clowning music, and yet it is slower and full of melancholy. (Email from Westerkamp to McCartney, October 21, 1998)

This choice of musical accompaniment for the text of *Breathing Room III* lends an air of emotional ambiguity to Westerkamp's self portrait. Like a circus clown it is somewhat off-balance, dancing on the verge of falling, celebration on the verge of tears.

The waltz music ends after "The Golden Ball is where she is." The last

sentence: "Until she hands it on" is said in silence. And then the same bouncy ball sound with which *Moments of Laughter* begins, comes on and some reiteration from the first part of this *Breathing Room* piece for a short while. (Email from Westerkamp to McCartney, October 21, 1998)

Also included in the final moments of this piece is another sound from *Moments of Laughter*: the child's laughter, which is heard quietly, in the background. Its juxtaposition with the synthesized waltz lends this sound an air of ambiguity as well, perhaps reflecting Westerkamp's concern about her child at this point in her life.

Here, it is important to note that all of the *Breathing Room* pieces were written at a time when Westerkamp had just gone through a separation from her husband and artistic collaborator, Norbert Ruebsaat, and she was at the same time exploring what the potentials were of this space between them. All three pieces retain a sense of both rupture and continuity. In *Breathing Room* this is actualized through the coming and going of breath, which as Frances Dyson says "brings the inevitable mortality of the body" close to the voice (1994: 175). In *Breathing Room 2*, Westerkamp remembers the social rupture between herself and the drunken voices, and transforms this experience of rupture into continuity with the audience, by sharing the performance of this piece with them. In *Breathing Room 3*, many moments of her family life and personal history are examined in terms of the flow from each moment to the next and its possibilities for her life as well as the experiences of loss and fragmentation.

I began this chapter by discussing Teresa de Lauretis's claim that feminist artists are pulled in opposite directions, towards the positivity of affirmative action and the negativity of social critique. Westerkamp explores this pull in her *Breathing Room* series, extending the critique and the affirmation, especially in the last piece, to aspects of her personal and family history that few composers would dare to bring to public attention.

As she does this, she creates "serious play" (Haraway 1991: 149) that is reminiscent of the antics of a circus clown, both playful and melancholy, personal and political.

Chapter Ten

Gently Penetrating Beneath the Sounding Surfaces of Another Place:

Inside and Outside the Soundscape

In the past few years, Westerkamp has been invited to lead soundscape workshops in a variety of international locations. One location that she has returned to repeatedly is India: this is partly because she has been invited back to take part in various projects, and partly because of her continuing interest in Indian sounds and culture. These visits have resulted in several musical works: the *India Sound Journals* (a work in progress), *Dhvani* (1996), and *Gently Penetrating Beneath the Sounding Surfaces of Another Place* (1997). In these pieces, she confronts the profound experience of hearing another culture and attempting to represent something of this experience to those who may not have shared it, attempting to bridge cultural difference without effacing it, remaining respectful of what she hears. The delicacy of this dance is reflected in the title of her most recent piece: she wishes to penetrate, but gently, not wanting to shift the sounds too far, to disturb what is there. She recognizes that it is only the sounding surfaces that she hears as a new visitor: the depths are beyond her reach.

India Sound Journals

The *India Sound Journals* begin as textual entries that Westerkamp writes during her trips to India. Like a travel diary, they are a way of making sense of the overwhelming stream of impressions that greet a newcomer on arrival in this extraordinary place, as Westerkamp herself notes in one of them:

It is the shock that everyone spoke about who has gone to India. I knew it would happen. I just didn't know how. Nothing can be processed into logical patterns here. At least not into the patterns I am used to. It all just is and demands attention. A startling enthusiasm fills me at the same time as tears well up inside. So many contradictions—the cripples and the silk, holy waters and stench, men defecating by the roadsides, everyone always looking so clean — such crazy making. (HW: *India Sound Journal Part III: Riveted*)

In this excerpt, Westerkamp situates herself as a new visitor to India. Later, she contrasts her situation with that of some New Delhi residents, noting how protected she is in relation to their living conditions:

People sleeping on bedsteads right beside the road, sleeping there, often two or three to one bed, sleeping there. Looking content and comfortable. Groups of beds placed together, a small community of people huddled together, sleeping soundly beside the noisy road traffic and breathing the filthy air from the exhaust fumes. All this just around the corner from this hotel where I am lying safely under a soft blanket, protected from noise and pollution, protected from people walking within inches past my bed, protected from raw life. (HW: *India Sound Journal Part III: Riveted*)

In another part, Westerkamp describes her astonishment on the first morning in Delhi when she hears and sees the traffic. At first she thinks it is complete chaos — no lanes, all directions at the same time, no one stopping. She hears nothing but car horns. Then she begins to realize that the car horns speak differently in India than elsewhere.

They rarely shout "get-out-of-the-way." They talk. "Hallo," "watch out, I am beside you," "leave me some room," "I want to move over to your side," "don't bump into me," "hallo," "I want to pass." What seemed like chaos initially starts to feel like an organic flow, like water. "There is an undercurrent of rules," says my friend Veena. (HW: *India Sound Journal Part II: Carhorn/Traffic Ambience*)

She begins to understand the traffic by listening more closely to how the horns sound, and how this relates to the movement of traffic. She begins to hear a conversation happening between the vehicles, and this leads her to understand the logic driving the traffic flow. Her friend Veena, a New Delhi resident, uses a water metaphor to describe the rules of traffic.

The sound journals follow Westerkamp's attempts to understand this culture, through listening, watching, reflecting and talking to local residents about her experiences. They are like threads joining Westerkamp's home cultures in Europe and North America, and the new culture. In performance, she juxtaposes these journals with tapes of related sounds recorded during her visits to India. Some of these sounds also appear in her later compositions based on the New Delhi recordings.

Westerkamp also uses the sound journals to consider dislocation between the original experience and the later performance of it. In the first part of the *India Sound Journals*:

"Camelvoice," Westerkamp stands offstage and speaks:

At this moment it's November 28, 1992 — I'm riding on a camel —
a camel in the desert near Jaisalmer, in Rajasthan, India.
Actually at this moment it is September 20, 1995.
I'm riding through the electroacoustic ether
together with my camel,
at Place des Arts in Montréal. (*India Sound Journals Part I: "Camelvoice"*)

The dislocation is even reflected in the pacing of the text, which in this case is broken into phrases and cued by particular sounds on the tape of camel sounds, in contrast with the other journals, which are in a continuous flow accompanied by the tape. This creates a sense of disjuncture at the same time as it makes more of a dialogue between tape and voice than with the other pieces.

Here in Montréal September 1995
At Place des Arts
Riding through the international electronic arts ether
disembodied
from the sand, the heat, its voice
Where is the camel at this moment? Where is it eating?
Who is riding it?
Recording its voice? Photographing its body? Where is it now? Reproduced many times all over this uhm...
Global Village? (*India Sound Journals Part I: "Camelvoice"*)

The journals serve not only to locate herself while in India, but also to locate her work in relation to electroacoustic practice, to reflect on what happens when a sound is taken from its context and transported elsewhere. As she is offstage, her voice is disembodied like the camel's voice. Her utterances, in dialogue with a tape of camel sounds, bring the attention of the audience to where they actually are, and where the camel actually is not, even though they can hear it. Her own position is ambiguous: although she says she is present, no one can see her. She could be in some liminal zone between India and Montréal.

The sound journals are a way of making sense of her experiences in India, and of relating that growing understanding to an audience in Canada. At the same time, she reminds her

audience that this is her perspective, of particular moments in the past, while the subjects of her recordings may have changed since.

Dhvani

A sonic gift from another place for the occasion of Vancouver New Music's 25th anniversary celebration. With thanks for staying alive and healthy for so long and with good wishes for the future. A sonic snapshot of India, a sonic moment of Indian life. Dhvani is a Hindi word for sound. (Westerkamp *Dhvani* program notes, 1996)

"In this Universe, there is no form of knowledge which is not perceived through sound; all this Universe is but the result of sound." (Vakyapadiya 1.124, as quoted by Westerkamp in *Dhvani* program notes)

In this program note for *Dhvani*, Westerkamp emphasizes the role of sound and listening in the production of knowledge and in creation. This short tape piece was written in 1996. It begins with a collage of traffic sounds, which move quickly by the listener in all directions, producing a feeling of disorientation. Westerkamp introduces the sound of her breathing, juxtaposed with a gradually shifting metallic drone. In the background, a vendor's voice is heard, introducing a section with many voices. The voices increase in number and intensity until Westerkamp breathes again. After this breath, many different kinds of bells are heard, with occasional birdsong. The bell ringing increases in tempo, and Westerkamp breathes again.

Like the *India Sound Journals*, this piece relates the rhythms of a newcomer's experiences in India, this time without words. Environmental sounds increase in intensity, producing a feeling of confusion, which is balanced by the quiet intensity of the kind of measured breathing that a listener might associate with yoga meditation. It gives a glimpse of the urban and spiritual intensity that Western visitors find in contemporary Indian life.

Gently Penetrating

The program note for *Gently Penetrating...* discusses several important aspects of the piece: its focus on human voices through the environment that surrounds them,

Westerkamp's approach to the sounds of New Delhi as a Western visitor, and her desire to express contradictions that she heard in the sounds and experienced in relation to the culture.

Gently Penetrating... focuses on the voices of market vendors, and their acoustic environment in the streets and markets of New Delhi.

The vendors' voices in this composition were recorded in specific areas of New Delhi during my first visit in 1992: in the residential area of Januk Puri, at the early morning produce market in Tilak Nagar, at the market near the Jama Masjid, and at the market stalls just off Janpath near Connaught Place. I noticed that many of the other sounds in these places besides the vendors' voices were those of metal (such as buckets falling over, cans rolling, the handling of metal pots, squeaking gates, sometimes unidentified objects rattling or clinking as they pass), bicycle bells and scooter horns. As they seemed to be rather characteristic sonic "accompaniments" to the environments through which the vendors passed or where they had their stalls, these sounds became major players in the composition. (HW: Program note, *Gently Penetrating Beneath the Sounding Surfaces of Another Place* 1997).¹⁶⁶

This program note is even more specific than earlier pieces in its documentation of field recording locations. What all of these locations have in common is the presence of street vendors' voices. As Westerkamp notes, these voices change in relation to their surroundings:

The gruffer, coarser shouting of male voices seemed to occur in markets near noisy streets or where a lot of voices were competing with each other. The vendors moving through quieter neighbourhoods seemed to have musically more expressive voices and almost songlike calls for their products, with clear melodic patterns. And then there was the voice of the boy selling juice... (HW: Program note, *Gently Penetrating Beneath the Sounding Surfaces of Another Place* 1997).

In this piece, Westerkamp balances this tendency of voices to change in relation to the environment by reversing it. She leaves the voices as they are, changing their surroundings to emphasize common points between the environment and the voices (for instance, changing the sound of the scooter horn to emphasize its vocal nature, harmonizing the slowed bicycle bell with melodic changes in a man's call).¹⁶⁷

Westerkamp notes that the sounds of street vendors' voices are much less common in

¹⁶⁶ All of Westerkamp's quotes in this section are from this source.

¹⁶⁷ See methodologies chapter or "In the Studio" on the CD ROM for more details.

both North America and Europe. From her perspective as a visitor from the West, the presence of these voices in the soundscape seems magical.

Coming from a European and North American context, I was delighted by the daily presence of the vendors' voices. As the live human vending voice has disappeared almost entirely in Northern Europe and North America and has largely been replaced by media advertising, it is somewhat of a miracle for the visitor from those areas to hear such voices again. (HW: Program note, *Gently Penetrating Beneath the Sounding Surfaces of Another Place* 1997).

Westerkamp experienced the soundscape and the culture of New Delhi as composed of contradictions that exist side by side, and she wanted to express these contradictions through her work. She heard the voices change in response to the shimmering, becoming more melodic, and to the grunge, becoming more gruff, and worked with these tendencies.

In a city like New Delhi, and other places in India, one experiences shimmering beauty and grungy dirt and pollution side by side all the time. These opposites are audible in most of my recordings as well and specifically in the sound materials selected for this piece. I wanted to express acoustically/musically both the shimmering and the grunge as it seems to represent so deeply and openly the contradictions within this culture and the intensity of life that results from it.

Finally I believe that this piece also explores outer and inner worlds as one experiences them in India: the extraordinary intensity of daily living on the one hand and the inner radiance, focus and stillness on the other hand that emanate from deep within the culture and its people, despite the hardships of life. (HW: Program note, *Gently Penetrating Beneath the Sounding Surfaces of Another Place* 1997).

Gently Penetrating... explores inner and outer worlds, shimmering beauty and grungy dirt as much by meditating on what holds them together as by listening to what differentiates them. Although these paired terms inner and outer, beauty and dirt seem initially like opposites, the intensity of daily living in New Delhi is composed of the intermingling of both, emanating from deep within the culture.

Compositional Process

In order to learn about Westerkamp's compositional process, I visited her in August of 1997, and interviewed her in her studio about the construction of *Gently Penetrating Beneath the Sounding Surfaces of Another Place*. I will describe her compositional process for this piece based on that interview. In addition, the CD ROM has a section

accessible from the main screen called "In the Studio." In this section, it is possible to listen to individual sound files that make up the piece, read descriptions of how these sounds were produced in the studio, and listen to excerpts of the piece with particular sound files highlighted in the score. The following discussion is a theoretical extension of the dialogue between Westerkamp and myself that began in that interview.

Hildegard Westerkamp's compositional process attempts to balance work outside and inside, field recording and studio work, reflection and action. The process of composing a piece may take several years: for instance, *Gently Penetrating Beneath the Sounding Surfaces of Another Place* (1997) was based on source recordings made in 1992 and 1994, and most of the studio work was completed at Bourges in 1997. Also, during that period between 1992 and 1997, Westerkamp composed the *India Sound Journals*, which are related to this piece. She has since added to the *India Sound Journals* in 1998. Since she continues to visit India on a regular basis, I anticipate that the *India Sound Journals* will grow again in the future.

Field Recordings in India

The initial field recordings for *Gently Penetrating Beneath the Sounding Surfaces of Another Place* were done from September to December 1992 and in October 1994. Almost all of the recordings from 1992 were done in the context of a soundscape workshop with local residents, on days when Westerkamp went with workshop participants to particular areas (markets, neighbourhoods, etc.)

The following is an excerpt from email correspondence where I ask Westerkamp about the nature of these field recordings:¹⁶⁸

¹⁶⁸ Westerkamp's recordings for this piece were made using a Sony DAT TCD-D10 recorder, a Sony D3 recorder, and a Sony stereo condenser mic ECM 959DT.

AM: Did you record several locations in one day, or just one location at a time?

HW: Often several recordings on one day, because we would sometimes go all day and have our tongues hanging out at the end! Some days started at 4 a.m. (those very loud male voices are all from an early morning vegetable market). Later on we went to a neighbourhood park where I recorded a morning ceremony (not in this piece) and after that to a neighbourhood where one of the participants lived and recorded the Saturday vendors and on and on.

AM: Were any of them like soundwalks in that you were moving through a place, or were you more still?

HW: At the early morning vegetable market I was moving all the time as well as at some of the other markets. So, I guess they could be called soundwalks in the sense of the moving mic. But they were not recorded like soundwalks, i.e. with commentary. In other words, I did not go out with the intention of recording a soundwalk, as the real characteristic of a soundwalk from my perspective is the mediating voice of the recordist.

Note here that Westerkamp's definition of soundwalks and mine are somewhat different.

For Westerkamp, the mediation of the recordist through her voice is what defines a recorded soundwalk (although she often prefers silent soundwalks when not recording).

For me, the sense of human bodily motion in a soundwalk recording is what defines it.

This still implies a certain kind of mediation, although it is not necessarily vocal. When someone records a soundwalk, moving through an environment at walking pace, they record the trace of their movements, and as a listener I can hear that someone is moving through a space. This moving trace of the recordist's subjectivity is what defines a soundwalk for me, while for Westerkamp it is also the presence of the recordist's voice, providing information about the place that is not audible. In still recording, the recordist's presence is less clearly felt. I feel the motion in *Gently Penetrating...* quite clearly, and sense Westerkamp's presence and perspective even though she does not speak.

In the program note for this composition, Westerkamp thanks those workshop participants who took her to the places where she did the recordings.

I would like to thank Savinder Anand, Mona Madan, Arun Patak, Virinder Singh, and Situ Singh-Bühler for taking me to the places where these vendor's voices occurred. Without their help and local knowledge I

would have had a difficult time capturing them on tape. (HW: Program note, *Gently Penetrating Beneath the Sounding Surfaces of Another Place* 1997).

It is an important part of Westerkamp's compositional process to make contact with local experts such as these, particularly in a place such as New Delhi which was at the time unfamiliar to her. Their knowledge of the local soundscape introduces Westerkamp to sound environments that she might otherwise not encounter for some time.

In the Studio

Eventually, Westerkamp took the field recordings that she had made in New Delhi and began to work with them in the studio to create the composition. In my discussion of her studio work with field recordings, I focus particularly on the sound of a bicycle bell, a scooter horn, a sitar, and a bucket clanking. Westerkamp did not alter the sounds of the vendors' voices, but worked with many of the metallic sounds that she heard *around* the voices as she recorded them. This approach is consistent with her other work. When Westerkamp works with recordings of human voices, she rarely alters them to any extent. In *Gently Penetrating...* she uses long unchanged excerpts of field recordings that focus on the street vendors' voices, sometimes without any accompaniment of edited sounds, such as at the midpoint of the piece.

Bicycle bell sounds

Westerkamp uses a recording of a bicycle bell, including several rings of the bell in a characteristic uneven rhythm as sounded by the cyclist in a ringing gesture (in other words, she did not isolate just one ring of the bell). Most of the sound files produced from the original bicycle bell are transformed primarily by altering their pitch, which in turn changes their speed. For instance, the original four rings of the bell, when altered to one octave lower in pitch, become twice as slow, and take twice as long to play.

In a multitrack sequencer, Westerkamp lines up the original with its pitch-shifted transformations, so that they begin at the same time. For a fraction of a second, all of the octaves sound together. Then, as each pitch-shifted version works through its evolution, they move into more complex harmonic relations to each other. The effect is to create what looks like a set of stairs on the mixing score, and sounds like a cascade. The original four rings were only a few seconds long, whereas this cascade takes almost a minute to play through. Because of the uneven rhythm of the original four rings, there is a random, liquid and spectrally colourful quality to this long gesture.

I just let it be an octave slower at the same time, which creates very interesting rhythms, and it becomes random. You're getting into the details of the gesture because it gets slowed down, whereas with the time correction option [altering the pitch but keeping the original rhythm and speed], it sounds more artificial. When the pitch is changed but the speed and rhythm stay the same, it is almost as if the rhythm doesn't fit with the pitch. HW¹⁶⁹

The same process can be used to make the pitch higher. In this case, Westerkamp proceeds by semitones, since the initial pitch is already quite high. The high bell sound in my CD ROM example is from 0 to 7 semitones higher, while the very high bell sound is from 8 to 15 semitones higher. These pitches are then connected in descending sweeps from the highest semitone in the series, creating fast chromatic scales.

Another way Westerkamp alters the original sound is to use subtle modulation to create harmonic bridges with other sounds. For instance, the very low bell sound was modulated slightly to highlight different features of a vendor's voice.

One vendor approaches the microphone, and then as he moves into the distance, the pitch of his voice shifts. It's a subtle doppler effect. [Using the sound file of a bicycle bell pitch-shifted five octaves lower] I made a sound file a semitone either higher or lower. The bell as it was resonated with one part of his voice, and the modulated one resonated with the other part. HW

¹⁶⁹ All quotes in this section are from Westerkamp's commentary when I interviewed her on August 18 1997, at her home studio in Vancouver.

One of the bell sounds is more radically altered. Westerkamp used gating, an electronic process that regulates the passage of a signal, to eliminate a large part of the reverberating part of the bell sound and emphasize the onset portion. The gate can be set to only let through the loudest portion of the sound. So, the sound becomes rather more "wooden" in its timbre, as the metallic resonance and reverberation that occurs after the attack have been reduced. This sound is used alongside other bell sounds: you can hear it in excerpt two of the piece on the CD ROM. Westerkamp juxtaposes it with the other, more subtly manipulated, bell sounds to make a connection with its source. This is consistent with her aim to retain a connection between sounds altered in the studio and the sounds as originally recorded.

I want to retain those rhythms, sometimes small, sometimes larger gestures ... they usually give me surprises. I like a certain amount of control, but I also like to work with what is already inherent in the materials. I receive them as gifts from that place with which then I can play. I want to go inside this bicycle bell, but I don't want to lose sight of the larger context within which it occurs. I have to understand why I want to do it, otherwise I just don't do it. HW

Scooter horn sounds

The sounds of motor scooters are prevalent in the New Delhi street ambience, so Westerkamp wanted to work with them. At the same time, she found the sound so unpleasant that initially she found it difficult to listen to.

I didn't like the sound at first. It was so ugly, I shrank away from it. HW

The scooter horn mix includes the original with several lower octaves. It is used in the piece to highlight the scooter sound when it happens in the street ambience.

I start with the scooter horn going into that ambience, then include the mix exactly at that point. HW

Adding reverberation to this sound softens the edges, and brings out its vocal quality.

HW: The way I mixed the [reverberation] and the original, the vocal part comes out more--the male voice, throaty, I knew I wanted that.

AM: Because it connected to the voice quality of some of the vendors?

HW: Yes, it suddenly connected to that, which I didn't anticipate at all, actually.

Clank sounds

Westerkamp creates a 'clank mix' by searching through field recordings for various metallic sounds that are related in their 'clanking' timbre, such as a bucket falling over, the sounds of hand-operated machines, and metallic objects being placed on the ground.

She also processes some of these sounds more radically.

There was one that I wanted to use but wasn't sure whether I should because it sounded more like my harmonies than those of India. I just fell in love with it, I had put it through a processing unit called the string modeller, and it was almost too much. HW

The string-modelled clank sounds are used infrequently in the piece, like an exotic, strong spice that could overpower if your hand slipped. One can hear how this sound file is used in excerpt two on the CD ROM, near the beginning. This came from around the eleven minute mark in the piece. It appears briefly in the midst of a dense mix.

Sitar sounds

I added the sitar sounds at the very end when the piece was basically finished. The sound colour of the sitar I perceive like a sound signature for what is typically Indian. It has a particular brilliance to it which occurs in the high frequencies of that sound. To emphasize that characteristic I filtered out all lower frequencies. When I had done that I had a sense of completion. I knew then that the piece was really finished. HW

For a Westerner, the sound of a sitar immediately brings an image of India to mind, probably due to the use of the sitar in Western popular music.¹⁷⁰ These sitar sounds were recorded in a music store. If you listen to the original sound, you will hear hammering in the background as a store employee makes an instrument. Westerkamp simply equalized this sound to bring out the brightness of its tone.

"An interesting dance"

¹⁷⁰ Initially with the music of Ravi Shankar and the Beatles, more recently by Janet Jackson and Madonna, among others.

Westerkamp's work in the studio is strongly connected to the acoustic characteristics of the sounds that she has recorded, and how these relate to her experience of the place where she recorded them.

The structure of a piece always comes out of the materials and the way I work with them, through knowing a place for a long time With any environmental sound, you are dealing with a given. Sometimes you want to impose something on it ... and it won't let you. There is an interesting dance that happens between the materials ... and your own compositional imagination. HW

Westerkamp listens to the materials to decide how to work with them. During this listening, she may hear things that were not apparent at the time of recording, but become obvious as she listens to the recordings again in the studio: aspects of the sounds that are particularly musical, evocative, connected to her experience of the place. Sometimes she will reflect on a piece for months or even years before she is ready to go further, allowing the piece to come to fruition slowly. In other cases, it happens very quickly, as in the text for *Kits Beach Soundwalk*. Then, she begins to highlight certain aspects of the recording by working with the materials. Often, she will take a certain sound gesture or fragment, work with it, then place it next to where she found it, by layering the original recording with the processed sounds. She creates harmonic and rhythmic bridges between sounds by listening to what they have in common. You can hear some of these processes more clearly by listening to the sound examples on the CD ROM.

Gently Penetrating... Musical Structure

Introductory Section 0:00 to 2:00

The piece begins with an introductory section characterized by high timbral density and diversity, as well as high vertical density. The slowed bicycle bell mix is juxtaposed with the sitar, ambient metal sounds mix and ambient recording of vendors' voices. The higher bicycle bell mixes come in after about one minute, followed by sounds derived from the

scooter horn and cobbler's wheel. During the two-minute introductory section, there is a movement from bell sounds to the more guttural horn sounds that end the section.

Rhythmic Section 2:00 to 4:30

This part begins with a recurrence of the slowed bicycle bell mix. Layered over this are repeated sound excerpts that are similar in their rhythmic qualities: the cobbler's wheel, a rolling can, metal clanks, a scooter loop and the gated bicycle bell. These are juxtaposed with vendors' cries that seem particularly rhythmic because of their resemblance to these other sounds.

Distant Section 4:30 to 7:00

Again, the slowed bicycle bell sounds signal a change. This section is characterized by spacious ambiances in which a boy vendor is heard far off. The traffic sounds, too, are more distant. In the foreground, we hear occasional bird song. Some mixes are also included in the foreground, such as squeaks and metallic sounds. The most striking element of this section is its perspective, in which we can hear a great distance. This is in contrast with the first two sections, in which the soundscape pressed closer to the listener.

The boy vendor 7:00 to 8:30

Here, at the centre of the piece, is a section in which all mixes and processed sounds are stripped away to reveal a single stereo recording of the market ambience. It is introduced briefly by the high bicycle bells. The boy's voice, which we heard earlier in the distance, is now right next to the listener, surrounded by other voices, metallic and traffic sounds. The repeated cry of the boy's call is clearly the focus of this section, both in terms of amplitude and melodic clarity.

Jama Masjid 8:30 to 10:45

At the end of the boy's voice section, the scooter horn, a man's voice repeating "Allah, Allah," combined with high bicycle bells, begin the next section with a suggestion of harshness through the guttural tones of the scooter and man's voice. The slowed bicycle bell mix returns. Again, the processed sounds are stripped away, and we are presented with more of the ambience of the Jama Masjid, where the boy works. However, unlike the last section, in which this ambience seemed quite gentle, in this part there are some shouting voices with harsher timbres, and the sound of spitting. Perspective changes throughout this section as voices move closer then farther away from the listener. From 9:55 to 10:40 we hear only the Jama Masjid ambience.

10:45 to 14:00 Conclusion

At 10:45 begins the final section, which is again characterized by high timbral diversity and vertical density, like the introductory section. It is also a point of very high amplitude, with many loud voices producing an atmosphere of confusion. We hear scooter horn loops, slowed bicycle bells, metallic clanks and sitar simultaneously. At around 11:30, this dense soundscape reduces in amplitude. The ambience of the Januk Puri is presented, but more in the background, surrounded by slowed bicycle bell sounds. After the confusion and density of the previous minute, this section seems almost serene in its slowing of time in the bicycle bell mix. Right at the end, from 13:25 on, the sitar sound appears briefly again.

Listener Responses to *Gently Penetrating*, *Dhvani* and the *India Sound Journals*

I was particularly interested in including responses to these works by people who live in India. Westerkamp provided me with the names of several people who had taken soundscape workshops with her in New Delhi, and I wrote to each of them individually. Two of these people responded, one by email and one by regular mail. In addition, I played *Gently Penetrating* ... and one of the *India Sound Journals* for one of Prof.

Beverly Diamond's undergraduate ethnomusicology classes at York University . The respondents in this case were from a wide variety of cultural backgrounds, and had experience from this course of thinking critically about sociocultural issues as they relate to music. I also played these works for a University of Waterloo composition class. In addition, I played *Dhvani* and some *India Sound Journals* at the Trent Radio Art day. I also received one response from a listener who heard these pieces in a Vancouver concert, and Professor Barry Truax of the Department of Communications at Simon Fraser University passed on listener responses to *Gently Penetrating ...* from one of his classes.

Musical Structure

Few of the responses to this work describe a particular musical structure or form. This is different from responses to Westerkamp's other works, and somewhat unusual given that I played it for a composition class and a group of radio artists, who did write about the musical form of other pieces. It could be that, because of the focus on the voices of the vendors, which are hard to categorize as music or documentary—they don't exactly sing in the traditional sense, yet are obviously not narrating—listeners tend to pay more attention to the types of sounds used rather than how they are organized. In other words, perhaps they have not yet decided whether this is music or documentary. Only one listener questioned the status of the piece as music. Mattie (19f) seems ambivalent: "I don't particularly like this piece because it is not what I consider music to my taste. I do however find this piece incredibly innovative and creative and I give Hildegard credit for that." It seems strange that this listener finds the work innovative and creative, yet does not like it as music. She notes that she feels as though she is visiting many different parts of a city: "some places I felt I 'visited' included a busy street, a church, a park, an asylum, a market place, a restaurant." So she experienced a complex journey, yet did not define it as a musical experience.

For several listeners, the dense imagery produced by recorded environmental sounds reminds them of a movie soundtrack. This is a comment made about many of Westerkamp's works, because people hear environmental sounds mixed with music in film soundtracks. It seems to be mentioned particularly in response to this work: at least nine of the 55 listeners who responded to this piece described it as filmic or similar to a movie, provoking vivid mental imagery.

Particular sounds

Many people made lists of the sounds that they heard as a way of making sense of the piece. In these lists, several common threads emerged as particular sounds impressed themselves more strongly on listeners. Three listeners include the sound of a sitar in their list without comment. A fourth, Orvam (22m, York undergraduate ethnomusicology) says that he finds this sound offensive, although he does not say why. Perhaps he believes that the sound of a sitar is stereotypically associated with India in the Western mind. Certainly this class was much more aware of the dangers of exoticizing another culture: the term exotic came up more often in their responses than elsewhere.

Only one listener discusses a much more subtle cultural difference which she hears in the piece: Runt (49f, York undergraduate ethnomusicology) says "All the work sounds seem 'small' — not overpowering like heavy industry sounds." I remember Westerkamp telling me of staying in a hotel in New Delhi when the management informed her that construction would begin the next day. She dreaded the onset of the work, anticipating the sounds of heavy machinery. When it began, what she heard were the sounds of people sweeping, scraping and hammering. They did not use any heavy machinery, and the construction sounds were much easier to live with than she had expected.

Sixteen listeners comment on the voices that they hear. Several mention the fact that the language is unfamiliar: Frances (22f, University of Waterloo composition) asks "I wonder how this would sound to someone who knows the language?" Jemma (23f, University of Waterloo composition) notes that because she cannot understand the voices, she focuses less on meaning and more on musical aspects of the sound: "Foreign language makes the voices seem more musical without the 'interference' of words, meaning and syntax." Many of the respondents are struck by hearing only the voices of men and children, but no women. Frances (22f, Waterloo composition) says "I picture mainly men because of the voices I hear." Runt (49f, York undergraduate ethnomusicology) asks: "Men with rapid voices — marketplace — Is it significant that the low drone and bells are needed to break through this?" I return here to two of Westerkamp's comments on this piece. In the program note, she says: "The gruffer, coarser shouting of male voices seemed to occur in markets near noisy streets or where a lot of voices were competing with each other." In our interview in her studio, talking about her use of the scooter horn sounds, she says: "The way I mixed the [reverberation] and the original, the vocal part comes out more--the male voice, throaty, I knew I wanted that." So the low drone in this part is the scooter horn, slowed down and processed with reverberation to increase its vocal quality, not to cut through the sounds of the voices, but to emphasize their throaty gruffness at that point.

An Indian listener gave me her reactions to the sounds in Westerkamp's composition, and also includes responses by other members of the audience:

I had not heard of her until recently --- when she presented a "soundscape" composition here in New Delhi, processed from recordings made from an earlier visit to this city. Her presentation was very well received. Most people in the audience had not been exposed to this type of work before. She managed to capture many sounds that are quintessentially "Indian" and maybe even specific to Delhi -- e.g. the morning sounds of sweepers and hawkers on the streets, the chitter-chatter of crowds and openly

curious questioning of bystanders in this populous city. The sound of blaring car and scooter horns, bicycle bells, vendors, etc. Even some singing in some medieval tombs, kids laughing, etc.

Of course, some skeptics in the audience thought she had missed a lot — e.g. the sound of birds — that are so numerous and varied here — with particular songs for particular times of day.

As a psychoacoustician, I have to confess I was listening in more of an "analytic" mode, noticing types of processing she had done to the sounds, - e.g. slowing or speeding them and making pitch transpositions, etc.

Anyway, -- in a nutshell -- her composition did capture the spirit of the city, and helped people NOTICE the sounds all around -- that most generally take for granted. (Punita Singh, contact by email)

This respondent clearly finds that Westerkamp's work reflects much of Indian life in a way that does not particularly exoticize it, but instead finds the spirit of the city of New Delhi. This is aided by her emphasis on everyday sounds. As I will discuss later in the section on place, many people heard in the voices of the vendors and the sounds of the marketplace a connection to places that they know rather than to an unknown and foreign place.

At the same time, some audience members who listened with Singh commented on what she had missed, particularly the sounds of the many varieties of local birds singing songs linked to the time of day, like a raga wheel. Is this because a European visitor to India is attracted by what is unusual in her experience (the sounds of a sitar, the voices of vendors on the street)? Is it because in an urban environment these sounds are more prominent? Anna (29f, York undergraduate ethnomusicology) says "Emphasis on human sounds — voices, vehicles, etc. rather than natural sounds — located in a specific place in India. Sections of natural sounds are less emphasized (shorter and infrequent)." Is this because natural sounds, and specifically bird songs, were less frequent than human sounds in the specific locations in New Delhi where Westerkamp recorded? Or is it because as a Westerner she was particularly fascinated by the unusual sounds of the vendors, so focused her attention on these sounds?

Perhaps it is both. The most frequent description of the musical structure of this piece is as a blend, of an "ebb and flow," as Runt calls it, between different states or places.

Affected (22m York undergraduate ethnomusicology) hears a blend of the magical and the real:

An intricately intertwined blend of authentic, "worldly" sounds (bells, people conversing or discoursing, etc.) with fantastic sounds (especially the "glittery tingles") makes one feel like one is in a magic world.

Anna (20f, York undergraduate ethnomusicology) hears it similarly, as a movement from dream to a waking state:

To me, it seems almost like drifting through a dream like state, with sections of incoherent, mystical music, which clears somewhat to reveal and focus on the actions and voices of the people around, but the mystical music is still available reminding us that it is still a dream. It then fades back and the dream-like music becomes dominant again. It then repeats the cycle.

Several people associate the movement between states or realms with the slowed bicycle bell sound. Starr (33f, University of Waterloo composition) says that "wind chimes hold fabric together, and indicate a change in scene." Spooky (26m) associates these sounds with memory and trance, a reaching into the past:

The chimes or bell sounds have a hypnotic or trance-like effect, or a feeling that you're being brought into the past (music similar to that I've heard used in movies at times when you're looking into the past or even a dream sequence).

It could be that the slowed-down bicycle bell has the function for Westerkamp of exploring what is similar and different between German, Canadian and Indian cultures. The slowed down bicycle bell sounds are similar to temple bells, as many listeners note. They are also similar in some ways to churchbells. I remember Westerkamp talking to me about the differences between the use of bells in the Christian church and the Hindu temple. In the Christian church, they are used to summon the congregation to come to

worship, or to mark special occasions. In the temple, they are used by the worshipper to announce his or her presence to the gods. In the program note for *The Deep Blue Sea* (1989), Westerkamp notes how the sound of bell chimes connects her German and Canadian experiences:

As I was working with the sound of these [Chimes of Olympos by Woodstock Percussion] chimes I realized it had a deeper meaning for me than simply "wind chime." I associated their rich sound with the sound of European churchbells. Somehow these chimes connected the two worlds for me: the "old world" — where I grew up — with its churchbells and my Canadian backyard into which I had put ... windchimes for years. (Westerkamp program note for *The Deep Blue Sea* 1989)

Marg (21f, York undergraduate ethnomusicology) imagines Westerkamp as fluid, painting the edges of culture together through her experience of them:

Who (what) is penetrating quietly? The listener, the “white” noise ... the woman.
I feel like the chimes, gongs, clock, bicycle wheel sounds come in to separate the scenes... (or join them together) like the one penetrating is liquid and can move in and out of space, time, and cultures.

This description of the slowed bell sounds as a means of separating scenes or joining them together makes me think of a liminal space, a border zone defined by the slowing of time through pitch-shifting. Homi Bhabha (1992) suggests that a liminal space where signs and symbols can be interpreted differently, in a state of psychic ambivalence and social contingency, can be described as a "time-lag": an ... interrogative space produced in the interruptive overlap between symbol and sign, between synchronicity and caesura or seizure" (1992: 59). The slow-moving, reverberant space of the bells allows for a multiplicity of cultural meanings (Chinese temple gongs, German church bells, windchimes) which allow listeners to hear the separate locations and shifts of emotions that Westerkamp has recorded, as well as hearing related locations and psychic states from their own memories. Bhabha's formulation seems particularly apt both in its reference to the lagging of time, quite literally what one does when slowing down the speed of movement through a sound envelope, as well as in its reference to iteration:

Westerkamp layers the original bicycle bell over successive slowed versions, gradually leading the listener into this liminal zone through repetition.

But not exact repetition: choosing an irregular gesture, amplifying and slowing it and setting it against itself focuses attention on the interrelationships inside the irregularities, a repetition which is like waves reaching the shore, a continually changing rhythm, with continually changing meanings. Rosi Braidotti refers to the interconnectedness of different experiences as "the philosophy of 'as if'":

It is as if some experiences were reminiscent or evocative of others; this ability to flow from one set of experiences to another is a quality of interconnectedness that I value highly. Drawing a flow of connections need not be an act of appropriation. On the contrary; it marks transitions between communicating states or experiences. Deleuze's work on lines of escape and becoming is of great inspiration here; nomadic becoming is neither reproduction nor just imitation, but rather emphatic proximity, intensive interconnectedness. Some states or experiences can merge simply because they share certain attributes.

Nomadic shifts designate therefore a creative sort of becoming; a performative metaphor that allows for otherwise unlikely encounters and unsuspected sources of interaction of experience and of knowledge. (1994: 5-6)

In the liminal spaces of the slow pitch-shifted world, a bicycle bell can become nomadic, shifting its meaning depending on the listener's experiences and memories. It becomes a church bell or a temple gong, marking transitions from one scene to another and allowing for a number of different stories to be told about the vendors in the street, allowing for interconnection between diverse experiences.

In a presentation at the Stockholm Acoustic Ecology conference in 1998, Westerkamp discusses the role of the recordist-composer as being at once inside and outside the soundscape, like a visitor to a foreign country:

The microphone collects all sound indiscriminately. It does not select or isolate them. This is in fact similar to how ears behave when we are in foreign surroundings. There our ears and psyche initially are incapable of selecting and making sense of what they hear. All sounds stream in unfiltered. They are as naked and

open as the ear of the newborn and can only become selective once we begin to know and understand the sounds of the place.

In that state of nakedness, the newborn's ear, the ear in a foreign place, or the technological ear, the microphone, are all equally powerful awareness raising tools. When the recordist is in a foreign country he or she is in fact positioned in a sound bubble within a sound bubble: doubly separated and at the same time doubly exposed, naked by virtue of hearing through microphone or headphones and with a stranger's ears. (Westerkamp 1998: unpaginated).

From the moment a recordist picks up a microphone to record, she becomes at once more of an insider, hearing every sound amplified and being able to use the microphone to focus on particular sounds, as well as an outsider, experiencing the soundscape through the technologically-altered ears of the microphone, observing the scene. I wonder, though, about whether a newcomer hears sounds unfiltered like a newborn, or whether indeed after the initial moments of confusion we resort to filters developed throughout our lives, whether we listen to compare with sounds that we already know, whether we already begin to translate? The listener responses to this as well as other pieces indicate that people often interpret sounds in relation to their prior experience, assisted by Westerkamp's liminal spaces.

Different Places

In *Gently Penetrating*, Westerkamp invites the listener to join her in an encounter with the sounds of New Delhi. As she notes, listeners will occupy that place differently from her experience of it. Punita Singh, a resident of New Delhi, says that this piece reflects the spirit of that place. Another New Delhi resident, Minfe, finds that working with Westerkamp has changed her attitude towards listening to the sounds of urban Indian life, leading her to compose with the sounds of that place:

Hildegard made us very aware of the variety of sounds India has—especially the city life. She hears and picks out in her compositions of soundscape—the otherwise mundane sounds which we don't even hear consciously any more or take for granted. She hears rhythms and patterns and selects very well, sounds that make a composition interesting to a listener. No-one here had thought of doing such compositions—but it has

given many of us ideas for the future to think of the variety of musical and natural sounds. I have done a few experiments in four environments with her—using my voice in different spaces of an old mogul tomb in Delhi.

Several listeners from the York undergraduate ethnomusicology class heard in the vendor's voices a link to the sound environments of their birthplace or ancestral home.

Pointer (22f, Chinese) says: "The first thing I can imagine is I am in a temple. That's kind of like the temple music in China." Grace, from the Philippines, imagines a rural environment similar to that of her hometown:

In the very beginning, I imagine a soothing rural place with a church. The church bells are ringing while the peasant natives in the market place are trying hard to sell something. This is particularly evident when I heard a boy shouting. Other background conversations seem like other natives are trying to bargain. In the middle section, incidentally, I could hear some common fighting. It seems like they're quite uneducated. That's why it creates such a commotion for them if the capitalists won't let them give the least price. As a bottom line I think it has a story showing what's going on in some rural areas. It reminds me of my hometown in the Philippines.

Grace hears a story here about rural economics and politics in the Philippines, because the sounds of the New Delhi marketplace blend with her memories of a similar sound environment in her hometown. Ono, an Italian-Canadian, is reminded of her street in an Italian-Canadian neighbourhood. "People yelling—reminds me of my street in the summer—all Italian people yelling like that."¹⁷¹ Later, the tapping and hammering takes her even closer to home "tapping—hammering—harvest (my parents' garden)." Lea, also an Italian-Canadian, is reminded of Italy: "This work evokes memories of when I visited Italy in 1988; some of the vocals in the piece remind me of the street vendors shouting out to come buy their products." This listener's response makes clear a difference between her experience in southern Europe, and Westerkamp's not far away in Northern Europe. In the program note, Westerkamp says:

¹⁷¹ When I moved to Toronto to do graduate work, I was drawn to the St. Clair-Dufferin area, partly because it is predominantly Italian. On my street in the summer I hear the sounds of people speaking—and yelling—this beautiful language, and sometimes singing arias as well. And then there is the World Cup celebration, an intensely vital human soundscape.

As the live human vending voice has disappeared almost entirely in Northern Europe and North America and has largely been replaced by media advertising, it is somewhat of a miracle for the visitor from those areas to hear such voices again. (Program note, *Gently Penetrating Beneath the Sounding Surfaces of Another Place* 1997).

I grew up in Northern Europe, in England, where vendors' voices are also rarely heard on neighbourhood streets. This difference between European countries points out how complex and differentiated sound mapping can be.

Fara, a Jamaican, heard first the Middle East, then Africa:

I first imagined bustling streets somewhere in the Middle East and then I imagined Africa. I had visions of African people having some sort of ceremony. Suddenly, the images fade away. Interesting music!! (I'm almost afraid that people in the class or anyone after hearing this will have a negative view of India).

I wonder when she heard the piece as located in India, prompting the final, bracketed comment? The earlier comments do not mention anything specifically negative, focusing more on the urban and social ("bustling streets," and a "ceremony") aspects of the sound environment. Fara heard the piece moving between geographically distant places. Different respondents heard the place as located on different continents, in either an urban or rural environment. How they placed it depended on their own previous experience of different sound environments. What is fairly consistent is people's description of the place as a market: twenty one respondents use this very word. Some of these respondents describe their upbringing as Canadian or Northern European, so their experience of markets might involve quite a different sound environment. How do people know that street vendors speaking a different language are in a market? I wonder how much this sonic recognition comes from travel, how much from film and television soundtracks?

The other issue raised by Fara is that of a listener's possible negative view of India. This concern about a listener's possible sociocultural judgment of the place through the music

is also raised in responses to the *India Sound Journals*. Fara, for instance, says: "I found the poem very disturbing and absolutely brilliant. Then again, I am almost certain that people will have a negative image of India, Delhi after listening to this" (Fara 20f, York undergraduate ethnomusicology). Doughboy says: "I can almost see the situations the narrator is in, these images are haunting and disturbing (some of them) of India" (21m, Filipino, York undergraduate ethnomusicology). Laverne responds: "does not make me ever want to visit India—the honesty about what it is really like, the harsh and vulgar realities are not appealing for me to want to listen again" (21f, Canadian, York undergraduate ethnomusicology). These respondents found the imagery both disturbing and unappealing. At the same time, in the class discussion afterwards, some other students said that the journals made them more curious about visiting India, rather than less.

Some other respondents heard class differences in the piece, without mentioning how it affected their own opinions about India. Grace says: "A lady speaking with Western background narrates the gaping difference between the rich and poor in India" (20f, Filipino, York undergraduate ethnomusicology). Karen Elstone hears a "contrast of poverty and wealth" (35f, Anglo-Saxon, York undergraduate ethnomusicology).

Other listeners made connections to different places and experiences, and did not comment on Indian life. For instance, Lea says "This work reminds me of my trip to Acapulco—taxi drivers are very brave and drive very fast but they always got us safely to our destination" (22f, Italian-Canadian, York undergraduate ethnomusicology). She describes a southern location, and her experience there as a visitor, where contact with local life is only at a surface level through taxi drivers and other service workers.

Some listeners commented on the recording perspective that they heard in the *India Sound Journals*. Rick says "In this one we are more the observer than the participant, instead of following her, we are walking beside her" (22m, Canadian, Trent Radio Art day). Peter Hau, also at the Trent Radio art day, notes: "relationship between narrator and soundscape works! Honest, uncontrived, direct. Appealing prose well delivered" (35m, white anglo). These listeners, as radio artists themselves, seemed more interested in how the piece worked technically as radio art, in terms of its heard perspective and the relationship between environmental sounds and narration, more than what its sociocultural implications were. Also, as white people born in Canada, they may not have had direct experience of the sociocultural implications of the work, so it does not evoke related memories.

Three other listeners' comments point out the limitations of my presentation format. Because I was always limited in terms of time, especially when I was playing pieces for university classes, and was playing recorded tapes rather than including live performance of the *India Sound Journals*, it was not the ideal listening situation. Wanda says "I really didn't get the point of this story in terms of 'This IS India'" (20f, York undergraduate ethnomusicology). Each of the *India Sound Journals* explores a different facet of Westerkamp's experience of India. Perhaps because I was only able to play two short excerpts, the experience was not as multi-faceted as it would have been within the piece as a whole. Ian says "I'd like to hear this within the context of the larger work" (22m, York undergraduate ethnomusicology). Compare these reactions with a response from Anthon (47m, Vancouver Cultural Centre) who heard the work as a whole, as a live performance by Westerkamp:

I appreciated *From the India Sound Journal* at the cultural centre in Vancouver especially for the mystery of the presentation and composer's entrance and for the clear, evocative aural ambience. I was "with" the piece throughout.

As with Westerkamp's *Moments of Laughter*, the *India Sound Journals* are intended to be live performances with tape accompaniment, and clearly work best in this context.

The other issue raised by Wanda's comment in the last paragraph is in what way this piece increases a listener's knowledge of India. Even when more of the facets of Westerkamp's experience in India are included, as in a performance of the whole piece, the work is not intended to describe India in the sense of encapsulating this complex and diverse culture, but to relate a Western visitor's initial experience of India. This is clear throughout the piece, as Westerkamp includes phrases in the narration like:

Waking up in Delhi on the first morning...

We have been here less than 48 hours...

It is the shock that everyone spoke about who has gone to India...(HW)

In both of these pieces, Westerkamp takes on the difficult and dangerous task of gently penetrating another culture, while trying to respect its integrity, strength and complexity. It is difficult and dangerous because she runs the risk of exoticizing Indian culture as she works with its sounds. Aware of this risk, Westerkamp clearly situates herself as a recent visitor, speaking not as an expert insider but as someone who is outside this soundscape as a foreigner, trying to understand through moving as far inside the sounds as she can, through listening. In her many visits to India, Westerkamp facilitates the work of a growing number of soundscape composers who live in New Delhi, who are insiders to this culture. Even her choice of places for initial field recordings are the result of being taken to these places by her New Delhi friends, as she describes in the program note of *Gently Penetrating*. Her approach to life in India is as exotic as her approach to the sound of a cricket, of her baby daughter's sound world, or of the sounds of her own body. She

makes each of these soundscapes exotic, even though they may initially seem mundane or foreign, by bringing out their musicality and magic.

Chapter Eleven

Conclusions

Dialogue has been important throughout the development of this dissertation, as a methodology that respects the agency and knowledge of consultants and research subjects. I have engaged in a fluid and ongoing dialogue with Westerkamp . She saw every chapter of this dissertation, sometimes before my committee did (for instance, the biography chapter). In addition, I contacted her about all kinds of more specific issues, on an ongoing basis. As friends, we talk to each other by email at least twice a week, when she is in Canada. While she is in India, communication is less frequent, nevertheless she sends letters, postcards, and sometimes packages in the mail, as well as the occasional email message.

All of these conversations were affected by our relationship as friends. There is a level of respect, patience and tolerance of difference that has facilitated such deep questioning of Westerkamp's compositional process and listeners' interpretations of her pieces. This level of exchange has informed both of us and our work during the period of writing. I have often wondered when reading biographical works about composers whether such a relationship exists between writer and composer. But these writings are traditionally presented as works primarily about the music, with biographical information about the composer, the writer as the sole interpreter, and the merest suggestion of the writer's relationship to the composer. Such a presentation defines some knowledge as belonging to the composer and some to the writer, without making clear how their interaction created the book. I have attempted to show some of the ways that my conversations with Westerkamp have developed my work, focusing on the interactions between us and how that has clarified our thinking.

The other levels of interactivity in this work are those between the researcher and other listeners, and the composer and other listeners, as well as the wider academic community. Here, there are a number of questions to consider. How did the form of the dissertation encourage interactivity among listeners: in other words, how useful were the web, CD-ROM and printed formats in this respect? How much interactivity was there during the listening sessions about Westerkamp's work? How much of a dialogue existed between composer and listener perceptions of structure, narrative and imagery related to a work? What would such analyses reveal about work that does not have such clear connections to the real world? How will these writings contribute to a wider academic dialogue?

Hybrid Format

I produced a dissertation in a hybrid format: part written text, part CD ROM, part website. Initially I desired to experiment with producing a document that was all hypertext. However, several practical considerations changed my mind. As I mentioned earlier, I find that long theoretical arguments are best presented as written text because then the reader is not tied to the screen for reading. Academics spend enough time in front of a computer screen! But it goes further than that. Accessibility is also a concern. I used Macromedia Director to produce the CD ROM, and this program has different versions for Macintosh and PC. In other words, if someone wants to produce a CD ROM for both platforms, they have to buy a PC *and* a Macintosh version of the software. I only had access to the Macintosh version, so the CD ROM is only for the Mac.

This platform accessibility became a concern even with my committee. Not all of them had a Macintosh for their own use, so in order for them to experience the CD ROM, we had to find a suitable location with a Macintosh. Not exactly accessible. So, even though the CD ROM provides possibilities to bring together images, text and sound in innovative

ways, concerns like platform accessibility and the availability of fast computers with CD ROM drives is still a concern.

The CD ROM seemed to work well in institutional settings that allowed a large number of people to experience the installation on one computer. So, for instance, the gallery installation based on the soundwalk was set up on a computer with a projector in one location over a period of days, surrounded by related artwork. The highest level of interaction between audience and creator was achieved in the York show, where Don Sinclair asked students to respond to the work and I had access to their responses. In that situation, I was able to get a clear idea of what people thought of the work, and how it led them to think about sound. Once again, as with many of the listening sessions, this was a captive audience: the journal entries about the show were part of the student coursework.

In my production of the installation I wanted to focus primarily on the sound, and to encourage the audience to do so as well. The sound was the first aspect of the presentation that I completed—images came later, were based on the sound, and were generally of lower resolution (leading to smaller memory requirements). The comments about the installation (see Appendix G) suggest that I was successful in this regard. Several people who came to experience the installation did leave thinking about daily sounds in a quite different way, and were sensitized to sound. Several also spoke about their reflections on the sounds of an urban park, the place of that source recording.

I sent the CD ROM to Stockholm for an international acoustic ecology conference. Here, it was available to conference registrants for a period of two days. My website was available, with an email link and a request for commentary. Although two people wrote to me noting that they had seen the work and liked it, neither said anything specific about it or whether it influenced their thinking about Westerkamp's music.

The CD ROM also seemed to act as a good supplement to an individual presentation. I used it in a soundwalk presentation at the Chicago *miXing: women in sound art* festival. Here, workshop participants were most interested in how Westerkamp works with soundscape recordings. In this case, the "In the Studio" section was very helpful in indicating how Westerkamp transforms a recording, how she juxtaposes transformed and original recordings, and how these work in the context of the piece as a whole. Some participants found this detailed information to be inspiring to their own work (for instance, Andrea Polli's *Shadow Walk*, created for another concert later in the series). In this situation, I believe that the CD ROM worked well to provide information as part of a live presentation. In other cases, I sent the CD ROM to individuals who requested it. Ian Chuprun, a composer who lives in Montréal, found the analysis of *Breathing Room* to increase his understanding of the piece, which he uses in his teaching.

The soundwalk website has been available online for almost two years now, has been included in two online festivals, is included on a webpage developed specifically for school use, and includes several email links inviting reaction. Responses include a brief mention in an online review by an arts magazine¹⁷² and a number of individual questions, often regarding the equipment used to do soundwalks, such as types of microphones and recorders, and where these are available for purchase. There have been no responses that relate substantively to the issues raised in this dissertation. However, when I go to do a soundwalk presentation and give people my website address first, some usually visit and come to the presentation knowing what a soundwalk is, what acoustic ecology is, what

¹⁷² "Andra McCartney's *Soundwalks* may be a pleasant way to end the visit. The project allows the visitor to wander through the audio-environment of Vancouver's Queen Elizabeth Park and the Open Ears Festival in Kitchener, Ontario." Magalie Tremblay. "Maid in Cyberspace Encore." Centre international d'art contemporain de Montréal, Electronic Art Magazine.
<http://www.ciac.ca/magazine/magelectroniqueangl.html>

kind of work Westerkamp does, and what my other work sounds like. The website is very useful as a preparation or followup to a presentation.

While interactivity is a word that is used freely within the computer community to signify the rich potential for intersubjective connection made possible by fast communication links and the ability of computers to store messages, the practical limits of interactivity seem to demand more attention. My discussion here points out some of these limits: platform differences, equipment availability, and download times are some present concerns. Beyond that, it seems that in this project, the hypertext works best as an adjunct to live presentations. Perhaps I can work more on creating a sense of greater personal presence in the reduced environment of my soundwalk website, including a photo of my face and more audience-directed text to encourage people to respond in the way that they do during a talk or workshop.

Listening Sessions

In the listening sessions I introduced a number of controls on dialogue, mainly to reduce my authority over listeners. I was concerned that if I came into a situation and gave a great deal of initial information about Westerkamp and the context of soundscape composition, listeners might be more likely to respond to my concerns and stated interests, making their written responses less open. For this reason, in most cases I gave only the titles of pieces, and did not read out program notes until after the listening session. I also allowed discussion of the pieces only after response forms had been handed in, fearing that criticisms of certain responses or a desire for consensus during discussion would lead to the deletion of certain responses. Peer pressure was most evident in the high school groups: quiet talking abounded during the listening session, as

people commented on each others' responses,¹⁷³ and two girls sitting next to each other had almost identical writings about the work, also using identical pseudonyms.

The lack of context was perhaps unfair to the work, which is usually presented with program notes that (in Westerkamp's case) give the audience some idea of the composer's process and the background of the work. For instance, the fears about exoticism in relation to *Gently Penetrating...* were allayed somewhat when I read out the program note, which identifies Westerkamp's concerns and her reliance on local experts to find source recordings. I also wonder whether I over-estimated my potential authority: when I presented *Cricket Voice* to my undergraduate electroacoustic composition class at Queen's University, I discussed the context of soundscape composition first, and showed them Westerkamp's mixing score as they listened. And still the references to alien abductions and confrontations surfaced in this session: the responses were similar to those of other listeners in the same age group. My opinions did not seem to alter their responses very much, so perhaps my concern to reduce the amount of information I give to allow for individual freedom is greater than it needs to be.

The discussions afterwards often raised issues which did not necessarily appear to the same extent in the written responses, often in relation to the interpretive community of each session. For instance, in music theory and composition classes, there was often a lot of discussion about whether soundscape composition is music or not, and requests for my definition of what constitutes music. In the graduate Women's Studies class in gender and culture, there was a general discussion about the kinds of challenges faced by women composers as they work, as well as discussions about stereotyping and essentialism. These discussions often took as long as the listening part of the session. While I wrote

¹⁷³ As my daughter Sian, who accompanied me on this session, reported afterwards.

notes about what occurred during these sessions, an interesting research project would be to tape such discussions and compare how responses in a group situation differ from and agree with individual responses.

Different Places

There always seems to be some level of connection between listener responses and the context of the piece, if not the stated concerns of the composer. For instance, in *Breathing Room*, the sense of tension experienced by listeners can be traced both to a sonic tension between the tempo of the mechanical heartbeat and the breathing, as well as the composer's ambivalent feelings about technology and the body. The places imagined by listeners are sometimes geographically widespread (for instance, in *Gently Penetrating...* there are references to places in India, China, the Philippines, Mexico and Italy) but connected sonically (in this case, places where street vendors work or bells of different types ring). Sometimes the connections between composer representation and listener response seem particularly tenuous, as with the alien responses to *Cricket Voice*. Yet even here there are connections that emerged when I returned to Westerkamp's writings about the Zone of Silence, and the artists' initial impressions of it as urban dwellers encountering a harsh environment.

It could be argued that this form of analysis, utilizing listener responses about structure, imagery and memories to the extent that I did, worked partly because this is a piece which uses "real-world" sounds. As Katharine Norman (1994) discusses, realworld music seems particularly concerned with telling tales, and making connections between the recordist and sounds from a known world in context. Would such a process work with more abstract pieces? I did a pilot project analyzing several Canadian electroacoustic pieces, some of which are considered to be much more abstract than Westerkamp's work, and several listeners reported strong imagery and complex narratives in response to these

pieces. Even though connections with real places in the world are facilitated by soundscape composition, it still seems that strong imagery can occur in response to pieces that are considered to be more abstract. It would be interesting in another project to explore this further, using a wide range of listeners from different interpretive communities, and analyzing their responses to musical works described as self-referential.

This study has been a very useful exercise in dialogic knowledge-seeking. Working with Westerkamp's soundwalk helped me to understand how Westerkamp listens to a sound environment, noting changes in the soundscape over time, listening to the voices of its inhabitants, responding to changes of the moment. It also gave me a chance to construct a response to that sound environment, working in a similar way to hers and articulating what I do differently. Performing *Moments of Laughter* gave us an opportunity to think about that piece as performer and composer as well as researcher and consultant, shifting our perspectives. Engaging with listeners' responses gave me access to ways of thinking about Westerkamp's work that enrich my own both through what connects us, and what separates our experience. My analysis of how Westerkamp and I influenced each other's thinking is a practical example of second-person knowledge-seeking among women friends.

These detailed analyses of some of Westerkamp's pieces contribute to research in several areas simultaneously. As a new method of analysis combining gestalt perception with listener response and critical theory, they are useful to music theorists. For instance, the listener responses about the experience of cultural flow in *Gently Penetrating...* and alien confrontations in *Cricket Voice* illustrate two different reactions to changes in sound scale produced by pitch-shifting. This connects listeners' stories about and images of the music with a perceptual change (in sound scale) and a compositional technique (juxtaposition of

sounds from a similar source, changed in pitch at octave intervals). Such a connection of imagery, listener perceptions, and compositional process suggests a way of generating new possible insights into musical processes.

My research indicates that integrating a wide range of listener responses can raise issues that might not otherwise occur to the researcher. Juxtaposing responses from people of different disciplinary backgrounds can suggest why expertise in a genre of music does not guarantee intent listening. Attitudes and values associated with disciplinary knowledge focus the listener on certain aspects of the music, and can even stop him or her from listening at all. The inclusion of a wider range of listeners offers a number of possible perspectives on the pieces, and other potential ways of understanding them.

Some of the issues which arose in my analysis reach into other academic areas. As Westerkamp notes, the similarities and differences between the tales she is telling and what listeners hear is useful for composers to know, to think about the role of the composer in relation to the listener. Similarities and differences between soundscape composition and film soundtracks in the responses will provide topics of discussion for theorists in the area of acoustic ecology as well as in film sound. What are the subconscious effects on listeners of film sound design? How do they activate fears and desires in the listener that they are not consciously aware of?

My discussion of categories and canonicity in electroacoustic music is helpful in a re-thinking of contemporary music history as it relates to the development of disciplinary canons, and to interactions between composers in their compositional formation. A further area of study might be to look at how biographers of composers, often composers themselves, influence both the reception of that composer's work and the composer's thinking about their work. While it is commonly understood that people choose to study

composers that they believe are influential, who have often influenced the researcher, less is known about how influence flows in the other direction. Westerkamp has noted several times how my work has affected her. It has helped her to increase her own understanding of her compositional approach, and her confidence in its value. My interpretation of listener responses has given her access to the ideas and imagery of a large audience talking about her work, offering insight into the stories that people tell and situations that they imagine while listening.

Another theoretical area, my multi-disciplinary approach to the study of the idea of northern wilderness in Canadian concert music, contributes to thinking about how such a mythology is related to canonicity, and leads to further questions about Canadian identity in music. How is this idea of north played out in popular music and film soundtracks? How is this mythology being complicated as Canada becomes increasingly multicultural, as global warming changes the climate, as music on the web changes what goes international? Westerkamp's approach to place in her music highlights the sonic, social, and ecological specificities of places. While she values the sonic sparseness that allows her to hear the song of a single cricket, her sound works are not the unpeopled landscapes of a Group of Seven northernness. Her works retain the motions, gestures and voices of herself and other inhabitants. She explores unknown places as much through stillness and intimacy as through rugged adventure. She also represents urban sounds, from the voices of people living under the flightpath of Vancouver's airport to the razzle-dazzle of Banff's tourist centre or the framed Nature of urban parks. This creates constructs of specific places in Canada that are more complex and differentiated than a mythology of northern purity.

Fundamentally, this dissertation and my work with Westerkamp have confirmed my own commitment to soundwalk recording as a creative discipline, an approach to research

with sound, and a way of organizing my life that makes sense. I have developed an approach to soundwalks that emphasizes a listening connection to a place and its inhabitants and a heightened awareness of how I move through that place. On January 13, 1999, spurred on by the incredible snowfall of early January (another sign of global warming?) and a need to balance my incessant writing with some creative work with sound, I came up with a millenium project that seemed at the time to be very simple: I would record, at intervals determined by chance procedures, the walk from the end of the street to my house, for the period of a year. That way I could mark changes in weather, meditate on my connection to my immediate neighbourhood, and make a website that uses sound to think about home, place, memory, and the passage of time over a year. Chance, as John Cage would say, comes in to give us the unknown. In April, I was offered a teaching position in Montréal, and we moved there in the summer. I continue to record from the end of the street to my house, but it is a different street, and a different house. And a different story.

Bibliography

A. List of Compositions and Sound Documents by Westerkamp

COMPOSITIONS

- Gently Penetrating Beneath the Sounding Surfaces of Another Place.* For two-channel tape, commissioned by Groupe de Musique Electroacoustique de Bourges (GMEB), France. Premiere: India International Centre, New Delhi, October 21, 1997. Honorary mention, Prix ars electronica, Linz, Austria, 1998.
- Talking Rain.* for two-channel tape, commissioned by CBC Radio for Westcoast Performance. Radio Premiere: April 20, 1997.
- Dhvani.* for two-channel tape. Premiere: November 10, 1996, Vancouver East Cultural Centre.
- Sensitive Chaos.* For two-channel tape, commissioned by Winnipeg New Music Festival. Premiere: January 28, 1995, Winnipeg.
- From the India Sound Journal.* Work in progress for spoken voice and two-channel tape. Premiere: June 22, 1993, Vancouver East Cultural Centre. Radio premiere: same date on "Wireless Graffiti," Vancouver Co-operative Radio, CFRO, Hildegard Westerkamp, voice.
- Beneath the Forest Floor.* For two-channel tape. Commissioned by CBC Radio for Two New Hours. Radio. Premiere: May 17, 1992. Recommended for broadcast by the 4th International Rostrum of Electroacoustic Music, 1992. Honourable mention, Prix Italia 1994.
- Breathing Room 3 - A Self Portrait.* For spoken voice and two-channel tape. Premiere: May 19, 1991, Pitt Gallery, Vancouver, Hildegard Westerkamp, voice.
- My Horse and I.* For two-channel tape, with poem and reading by Sharon Thesen. Premiere: May 19, 1991, Pitt Gallery, Vancouver.
- École Polytechnique.* For 8 churchbells, mixed choir, bass clarinet, trumpet, percussion and two-channel tape. Commissioned by Montreal Musiques Actuelles/New Music America 1990. Premiere: Nov. 3, 1990, New Music America, Montreal.
- Breathing Room.* For two-channel tape. Commissioned by "Diffusion i MeDIA", Montreal, for the "Electro clips" CD. Premiere: Nov. 2, 1990, New Music America, Montreal.
- Breathing Room 2.* For two-channel tape, bottles and audience. Premiere: April 1990, Surrey Arts Centre, Surrey, B.C.
- The Deep Blue Sea.* For spoken voice and two-channel tape, a collaboration with Norbert Ruebsaat, text by Brian Shein. Premiere: March 30, 1989, Vancouver Art Gallery, Norbert Ruebsaat, voice.
- Kits Beach Soundwalk.* For spoken voice and two-channel tape. Premiere: March 30, 1989, Vancouver Art Gallery, Hildegard Westerkamp, voice.
- Harbour Symphony.* For six boathorns in St. John's Harbour, Newfoundland. Premiere: July 1988, Sound Symposium, St. John's, Newfoundland.
- Music from the Zone of Silence:* For one to four voices and two-channel tape. Premiere: July 1988, Sound Symposium, St. John's, Newfoundland.

Moments of Laughter. For female voice and two-channel tape. Commissioned by Vancouver New Music Society. Premiere: March 1988, Vancouver, Meg Sheppard, voice.

Cricket Voice. For two-channel tape. Premiere: June 1987, Community Arts Council, Vancouver.

Harbour Symphony. For over 100 boathorns in Vancouver Harbour, for the opening of the Canada Pavilion, EXPO '86. Commissioned by Canada Pavilion, EXPO '86, Vancouver. Premiere: May 1986, Vancouver Harbour.

His Master's Voice. For two-channel tape.

Cool Dool. For spoken voice and two-channel tape. Premiere: February 1984, Vancouver East Cultural Centre, Hildegard Westerkamp, voice.

Windmusic. For any wind instrument and two-channel tape. Premiere: November 1981, Women in Focus Gallery, Vancouver.

Streetmusic. For any portable instrument and two-channel tape. Premiere: November 1981, Women in Focus Gallery, Vancouver.

A Walk Through the City. For two-channel tape, with poem and reading by Norbert Ruebsaat. Commissioned by Two New Hours, CBC Stereo. First broadcast: April 1981.

Fantasia for Horns II. For French Horn and four-channel tape. Premiere: May 1979. Music Gallery, Toronto.

Fantasia for Horns I. For four-channel tape. Premiere: 1978. Western Front Gallery, Vancouver.

Familie mit Pfiff (Theme and Variations). For two-channel tape. Premiere: October 1976, Osnabrück, Germany.

Whisper Study. For two-channel tape. Premiere: 1975. Western Front Gallery, Vancouver.

SOUND INSTALLATIONS

Nada - An Experience in Sound. A sound Installation about listening at the Mati Ghar, Indira Gandhi National Centre for the Arts Janpath, New Delhi, India, December 10-25, 1998; with the collaboration of Savinder Anand, Mona Madan, and Veena Sharma; financial support: Max Mueller Bhavan (Goethe Institut), Delhi.

Türen der Wahrnehmung (Doors of Perception). A radio environment. Commissioned by Österreichischer Rundfunk and Ars Electronica, Linz, Austria. First Broadcast: Sept. 1989, during Ars Electronica, Linz.

Coon Bay. A Westcoast environment for two-channel tape. 1988.

Zone of Silence Story. An acoustic environment for a group exhibition of the "Zone of Silence Project" at the Museum of Québec in Québec City, December 1985 to January 1986, a collaboration with poet Norbert Ruebsaat

Cordillera. An acoustic environment for four-channel tape on the poetry of Norbert Ruebsaat. Commissioned by the Western Front Gallery for the "Music from the New Wilderness Festival". Premiere: February 1980, Western Front Gallery, Vancouver.

SOUND DOCUMENTS

- One Visitor's Portrait of Banff*. A series of radio pieces for "Radio Rethink: Art Sound and Transmission", The Banff Centre, Banff, Alberta, Canada. First Broadcast: March 12, 1992.
- Convergence*. A two-hour sound document of the CEC Electroacoustic Days in Banff, Nov. 1989. Commissioned by the Banff Centre and produced for Community Radio Stations across Canada.
- Voices for the Wilderness*. A sound document of the first Stein Festival, held in the alpine meadows of the Stein watershed near Lytton, B.C., produced in collaboration with Norbert Ruebsaat.
- Women Voicing*. A sound document for *Musicworks* 31, Toronto. 1985.
- Streetmusic*. A sound document about Vancouver's streetmusicians. Commissioned by CFRO, Vancouver Co-operative Radio and CBC Radio. First Broadcast: Spring 1982.
- Under the Flightpath*. A sound document about life near the airport. Commissioned by the Hornby Collection, CBC Radio. First Broadcast, January 1981.

SOUND AND MUSIC FOR FILM AND RADIO DRAMA

- I Know*, radio drama by Norbert Ruebsaat, produced by William Lane, CBC. 1998.
- Bones of the Forest*, directors/producers Heather Frise and Velcrow Ripper. 1995.
- Ranch*, directors/producers Steven Denure and Chris Lowry. 1985.
- Still Sane*, a film production by Women in Focus, Vancouver. 1985.
- Streetkids*, National Film Board, director, Peg Campbell. 1985.
- One Woman Waiting*, director, Josephine Massarella. 1982.
- This Borrowed Land*, National Film Board, director, Bonnie Kreps. 1982.

B. Writings and Presentations by Westerkamp

- Westerkamp, Hildegard. "Speaking from Inside the Soundscape." Presentation at Hör Upp/Hey Listen! Acoustic Ecology conference, Stockholm, Sweden, June 1998.
- — — —. "UmweltKlang - HörErfahrung." *SoundScape Design KlangWelten HörZeichen*. Edited by Hans Ulrich Werner. Basel, Switzerland: Akroama, 1997.
- — — —. "Listening to the Listening." *Sounding Out Genders: Women Sound Artists Talk about Gender and Technology*. Presentation at the Sixth International Symposium on Electronic Art. Montréal, Québec, September 19, 1995.
- — — —. "The Soundscape On Radio." In *Radio Rethink*. Edited by D. Augaitis and D. Lander. Banff, Alberta, Walter Phillips Gallery, 1994.
- — — —. "A Little Symposium on the Symposium, excerpts from a conversation between Norbert Ruebsaat and Hildegard Westerkamp on the outdoor events at the 1988 Sound Symposium in St. John's Newfoundland." *Musicworks* 45, Winter 1990: 19-28.

- . "Cool Drool," and "Listening and Soundmaking." *Sound by Artists*. Banff, AB: Walter Phillips Gallery, 1990: 222-234.
- . "Listening and Soundmaking: A Study of Music-as-environment." M.A. thesis, Department of Communications, Simon Fraser University, 1988.
- . "A Child's Ritual." *Musicworks* 35 (1988): 12.
- . Acoustic Ecology and the Zone of Silence. *Musicworks* 31 (Spring 1985): 8-9.
- . "Wilderness Lake." *Musicworks* 15 (Spring 1981): 20-21.
- . "Soundwalking." *Sound Heritage* 3 no. 4, 1974: 18-27.

C. Writings about Westerkamp

- Bazzana, Kevin. "Hildegard Westerkamp." *Encyclopedia of Music in Canada*. Edited by Helmut Kallmann, Gilles Potvin, Kenneth Winters. Toronto: University of Toronto Press, 1992: 1396.
- Bergeron, Carol. "Musique en Spectacle." *Le Devoir*, November 5, 1990: 8.
- Bernstein, Tamara. "December 6." *Herizons* (Spring 1993): 21-22.
- Chatelin, Ray. "Wake Up and Hear the Crickets" *Music Scene* (March 1988): 7.
- Drushka, Ken. "Musical Opening for Canada Pavilion." *Harbour and Shipping* (May 1986): 24-25.
- Everett-Green, Robert. "'Snapshots' That Stimulate." *Globe and Mail*, November 26, 1990: C4.
- Kolber, David. "Hildegard Westerkamp's 'Kit's Beach Soundwalk': Shifting Perspectives in Real-World Music." Unpublished paper, Undergraduate program in Communications, Simon Fraser University, March 16, 1998.
- Labelle, Brandon. "The Sound of Music: Contemporary Sound-Art and the Phenomenal World." *Art Papers*. (March 1999): 36-39.
- Littler, William. "Bells Have a Peal for New Music Fans." *Toronto Star*, November 5, 1990: 6.
- McCartney, Andra. "Soundwalk in the Park with Hildegard Westerkamp." *Musicworks* 72 (Fall 1998): 6-15.
- Robertson, Clive. "Musics and Function: Geography, place, topography, politics and the recording process." *Fuse Music Supplement*, March 1982: 347-349.

Sawchuk, Kim. "Noise and the Acoustic Environment: Kim Sawchuk Interviews Hildegard Westerkamp." Broadcast on *Postmodern Commotion*, CKUT Montréal, November 1990.

Smolders, Ios. "Hildegard Westerkamp". Accessed online, August 20, 1998, at <<http://www.hyperreal.org/zines/est/intervs/westerk.html>>. Transcript of an interview conducted in 1993.

Young, Gayle. "Composing with Environmental Sound." *Musicworks* 26 (Winter 1984): 4-8.

Zapf, Donna. "Inside the Soundscape: The Compositions of Hildegard Westerkamp." *Musicworks* 15, 1981, 5-8.

C. Westerkamp Discography.

"Gently Penetrating Beneath the Sounding Surfaces of Another Place." *Harangue II*. CD. Vancouver, BC: earsay, 1998.

"Talking Rain." *Harangue I*. CD. Vancouver, BC: earsay, 1998.

"Dhvani." *1977-1997, 20 Jahre Osnabrücker Komponisten*. CD. Osnabrück, Germany: Kreis Osnabrücker Komponisten, 1997.

Transformations. CD. Montréal: empreintes DIGITALes, 1996.

"Türen der Wahrnehmung (Doors of Perception)" *Radius*. CD. Albuquerque, NM: Nonsequitur, 1996.

"Kits Beach Soundwalk" (German version) *Der Verlust der Stille*. CD. Baden, Germany: Evangelische Akademie Baden, 1995. Also on *Klang Wege*. CD. Kassel, Germany: Gesamthochschule and Basel, Switzerland: Akroama, 1995.

"Contours of Silence" and "Banff Razzle Dazzle." *Radio Rethink—Art, Sound and Transmission*. CD. Banff: Walter Phillips Gallery, The Banff Centre for the Arts, 1994.

"Breathing Room." *Électroclips*. CD. Montréal: empreintes DIGITALes, 1990.

"Cricket Voice." *Electroacoustic Music*, Anthology of Music in Canada #37. Montréal: Radio Canada International, 1990. Also *The Aerial* #2. CD. Albuquerque, NM: Nonsequitur, Spring 1990. Also *Ear Magazine Absolut CD #1 New Music Canada*. New York: Ear, 1990.

"A Walk through the City" (excerpt). *Sources*. Cassette. Olympia, WA: Soundviews, 1990.

"His Master's Voice." *Anthology 2*". Cassette. Toronto: Underwhich Editions, 1989.

Inside the Soundscape. Cassettes 1-5: 1. "Fantasie For Horns I and II;" 2. "A Walk Through the City," "Whisper Study," "Street Music;" 3. "Cordillera," "Zone of Silence Story;" 4. "Voices for the Wilderness;" 5. "Harbour Symphony." Vancouver: Inside the Soundscape, 1986.

Musicworks 31: *Women Voicing*. Cassette MW 31. Excerpts from "Collage of Desert Plant Sounds," "Cricket Nightsong," "His Master's Voice." Toronto: Musicworks, 1985.

Musicworks 26: A Walk Through the City. Cassette MW 26. Excerpts from "Cool Drool," "A Walk Through the City," "When There Is No Sound." Toronto: Musicworks, 1984.

D. References and Bibliographic Sources

Adams, Stephen. *R. Murray Schafer*. Toronto: University of Toronto Press, 1983.

Allucquère, Rosanne Stone. "Sex, Death and Machinery Or How I Fell In Love With My Prosthesis." *The War of Desire and Technology at the Close of the Mechanical Age*. Cambridge, Mass: MIT Press, 1995: 1-32.

Altman, Rick. *Sound Theory, Sound Practice*. New York: Routledge, 1992.

Ames, Michael. "The Canadianization of an American Fair: The Case of Expo '86". *The Beaver Bites Back? American Popular Culture in Canada*. Edited by David Flaherty and Frank Manning. Montréal: McGill-Queen's University Press, 1993: 237-246.

Amtmann, Willy. *Music in Canada, 1600-1800*. Québec: Habitex, 1975.

Anderson, Benedict. *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. London: Verso, 1983.

Anderson, Laurie. *Stories from the Nerve Bible*. New York: Harper Collins, 1994.

Angus, Ian. *A Border Within: National Identity, Cultural Plurality, and Wilderness*. Montreal and Kingston: McGill-Queen's University Press, 1997.

Anthology of Canadian Music. Montréal: Radio Canada International, 1978ff.
Boxed record sets with liner notes and recorded interviews or monologues. ACM 1, Murray Schafer, 1979. ACM 2, John Weinzweig, 1978. ACM 3, Jean Papineau-Couture, 1979. ACM 4, Serge Garant, 1978. ACM 5, Clermont Pépin, 1980. ACM 6 Francois Morel, 1980. ACM 7, Harry Somers, 1980. ACM 8, Harry Freedman, 1981. ACM 9, Jean Coulthard, 1982. ACM 10, Bruce Mather, 1981. ACM 11, Healey Willan, 1982. ACM 12, Gilles Tremblay, 1982. ACM 14, Otto Joachim, 1983. ACM 15, Robert Turner, 1983. ACM 16, Oskar Morawetz, 1983. ACM 17, Violet Archer, 1983. ACM 18, Micheline Saint-Marcoux, 1984. ACM 19, Jean Vallerand, 1984. ACM 20, Alexander Brott, 1985. ACM 21, Sophie Echhardt-Grammaté, 1985. ACM 22, Istvan Anhalt, 1985. ACM 23, Murray Adaskin, 1986. ACM 24, Kelsey Jones, 1986. ACM 25, Barbara Pentland, 1986. ACM 26, John Beckwith, 1986. ACM 27, George Fiala, 1987. ACM 28, André Prevost, 1987. ACM 29, Roger Matton, 1987. ACM 31, Jacques Héту, 1988. ACM 32, Rodolphe Mathieu, 1988. ACM 33, Talvadis Kenins, 1988. ACM 34, Srul Irving Glick, 1989. ACM 36, Claude Vivier, 1990. ACM 37, Electroacoustic Music, 1990.

- Appadurai, Arjun. "Introduction: Place and Voice in Cultural Anthropology." *Cultural Anthropology* 3 no. 1, 1988a: 16-20.
- . "Putting Hierarchy in Its Place." In *Cultural Anthropology* 3 no. 1, 1988b: 36-49.
- Appleton, Jon H. and Ronald C. Perera, editors. *The Development and Practice of Electronic Music*. Englewood Cliffs, NJ: Prentice-Hall, 1975.
- Attanasi, John and Paul Friedrich. "Dialogic Breakthrough: Catalysis and Synthesis in Life-Changing Dialogue." *The Dialogic Emergence of Culture*. Edited by Dennis Tedlock and Bruce Mannheim. Chicago: University of Illinois Press, 1995: 33-53.
- Atwood, Margaret. *Strange Things: The Malevolent North in Canadian Literature*. Oxford: Clarendon, 1995.
- Babbitt, Milton. *Words About Music*. Madison, WI: University of Wisconsin Press, 1987.
- Basart, Ann. *Serial Music: A Classified Bibliography of Writings on Twelve Tone and Electronic Music*. Berkeley, CA: University of California Press, 1963.
- Battersby, Christine. *Gender and Genius: Towards A Feminist Aesthetics*. Bloomington and Indianapolis: Indiana University Press, 1989.
- Beckwith, John and Dorith Cooper, editors. *Hello Out There! Canada's New Music in the World 1950-1985*. CanMus Documents 2. Toronto: Institute for Canadian Music, 1988.
- Beckwith, John. *The Canadian Musical Repertoire*. A lecture presented January 30, 1992. Sackville, NB: Mount Allison University, 1992.
- . *Canadian Music in the 1960s and 1970s: A Chronicle*. Lecture given at University of Toronto, October 20, 1979. Toronto: CMC, 1979.
- . "Introduction." *Musicanada: A Presentation of Canadian Contemporary Music*. Ottawa: Canada Council, 1977.
- Behar, Ruth. "Rage and Redemption: Reading the Life Story of a Mexican Marketing Woman." *The Dialogic Emergence of Culture*. Edited by Dennis Tedlock and Bruce Mannheim. Chicago: University of Illinois Press, 1995: 148-178.
- Benjamin, Walter. "Canadian Music and the International Marketplace." *Hello Out There: Canada's New Music in the World, 1950-1985*. Edited by John Beckwith and Dorith Cooper. Toronto: Institute for Canadian Music, 1988.
- Berio, Luciano. *Two Interviews*. New York: M. Boyars, 1985.

- Berland, Jody. "Weathering the North: Climate, Colonialism, and the Mediated Body." *Relocating Cultural Studies: Developments in Theory and Research*. Edited by Valda Blundell, John Shepherd and Ian Taylor. London: Routledge, 1993: 207-225.
- . "Nationalism and the modernist legacy: Dialogues with Innis." *Culture and Policy* 8(3), 1997: 9-40.
- Berton, Pierre. *Hollywood's Canada: The Americanization of Our National Image*. Toronto: McLelland and Stewart, 1975.
- Bhabha, Homi K. *The Location of Culture*. London: Routledge, 1994.
- . "Post-colonial Authority and Postmodern Guilt." *Cultural Studies*. Edited by Lawrence Grossberg, Cary Nelson and Paula Treichler. New York: Routledge, 1992: 56-68.
- . (ed). *Nation and Narration*. London: Routledge, 1990.
- Bloom, Harold. *A Map of Misreading*. New York: Oxford, 1975.
- Born, Georgina. *Rationalizing Culture: IRCAM, Boulez, and the Institutionalization of the Musical Avant-Garde*. Berkeley: University of California Press, 1995.
- Boulez, Pierre. "Technology and the Composer." *The Language of Electroacoustic Music*. Edited by Simon Emmerson. London: Macmillan, 1986, 5-16.
- Bradley, Susan. "Extramusical References in the Works of R. Murray Schafer." Master's thesis, Music Department, University of Alberta: Edmonton, Alberta, 1983.
- Braidotti, Rosi. "Cyberfeminism with a difference."
http://www.let.ruu.nl/somwnes_studies/rosi/cyberfem.htm. Accessed February 7, 1997, 5:25 pm. Last modified: July 3, 1996.
- . *Nomadic Subjects: Embodiment and Difference in Contemporary Feminist Theory*. New York: Columbia, 1994.
- Brakhage, Stan. "Space As Menace in Canadian Aesthetics" *Musicworks* 68 (Summer 1997): 28-29.
- Bridger, Michael. "An Approach to the Analysis of Electroacoustic Music Derived from Empirical Investigation and Critical Methodologies of other Disciplines." *Contemporary Music Review* 3, 1989: 145-160.

- Bright, Brenda Jo, and Liza Bakewell, eds. *Looking High and Low : Art and Cultural Identity*. Tucson, AZ : University of Arizona Press, 1995.
- Buege, Douglas J. "Epistemic Responsibility to the Natural: Towards a Feminist Epistemology for Environmental Philosophy," *APA Feminism and Philosophy Newsletter* 91 no. 1 (Spring 1992): 73-78.
- Byers, Thomas B. "Commodity Futures." In *Alien Zone: Cultural Theory and Contemporary Science Fiction Cinema*. Edited by Annette Kuhn. New York: Verso, 1990: 39-52.
- Cage, John. *Silence*. Cambridge, Mass: MIT Press, 1961.
- Callaghan, Dymphna. "The Vicar and Virago: Feminism and the Problem of Identity." *Who Can Speak? Authority and Critical Identity*. Edited by Judith Roof and Robyn Wiegman. Urbana: University of Illinois Press. 1995: 195-207.
- Cantrell, Carol. "Analogy As Destiny: Cartesian Man and the Woman Reader." *Aesthetics in Feminist Perspective*. Edited by Hilde Hein and Carolyn Korsmeyer. Bloomington and Indianapolis: Indiana University Press, 1993: 218-228.
- Chadabe, Joel. *Electric Sound: The Past and Promise of Electronic Music*. Upper Saddle River, NJ: Prentice Hall, 1997.
- Charbonnier, Georges. *Entretiens avec Edgard Varèse*. Paris: Belfond, 1970.
- Cherney, Brian. *Harry Somers*. Toronto: University of Toronto Press, 1975.
- Citron, Marcia. "Feminist Approaches to Musicology." In *Cecilia Reclaimed: Feminist Perspectives on Gender and Music*. Edited by S. Cook and J. Tsou. Urbana: University of Illinois Press, 1994: 15-34.
- — — — . *Gender and the Musical Canon*. Cambridge: Cambridge University Press, 1993.
- Code, Lorraine. "Naming, Naturalizing, Normalizing: "The Child" as Fact and Artefact." Forthcoming in *Engendering Developmental Psychology*. Edited by P. Miller and E. Schoenick. New York: Routledge.
- — — — . "What is Natural About Epistemology Naturalized?" *American Philosophical Quarterly* 33 no. 1 (January 1996): 1-22.
- — — — . *Rhetorical Spaces: Essays on Gendered Locations*. New York: Routledge, 1995.

- . "Taking Subjectivity into Account." *Feminist Epistemologies*. Edited by Linda Alcoff and Elizabeth Potter. New York: Routledge, 1993: 15-48.
- . *What Can She Know? Feminist Theory and the Construction of Knowledge*. Ithaca, NY: Cornell, 1991.
- Cook, Judith A. and Mary Margaret Fonow. "Knowledge and Women's Interests: Issues of Epistemology and Methodology in Feminist Research." *Sociological Inquiry* 56 (1986): 2-29.
- Cook, Susan, and J.Tsou, editors. *Cecilia Reclaimed: Feminist Perspectives on Gender and Music*. Urbana: University of Illinois Press, 1994.
- Cooney, Denise von Glahn. "A Sense of Place: Charles Ives and 'Putnam's Camp, Redding, Conneticut'" *American Music* (Fall 1996): 276-312.
- Cott, Jonathan. *Stockhausen: Conversations with the Composer*. New York: Simon and Schuster, 1973.
- Davey, Frank. "Critics Folly." *Canadian Forum* 66, November 1986: 40-41.
- Dawson, Ted. *A Teacher's Guide to Canadian Music*. Edited by David Parsons. Toronto: CMC, 1991.
- de Lauretis, Teresa. *Technologies of Gender: Essays on Theory, Film, and Fiction*. Bloomington, IL: Indiana University Press, 1987.
- Desautels, André. "The History of Canadian Composition 1610-1967." *Aspects of Music in Canada*. Edited by Arnold Walter. Toronto: University of Toronto Press, 1969: 90-142.
- Deutsch, Herbert A. *Electroacoustic Music: The First Century*. Miami, FL: Belwin Mills, 1993.
- . *Synthesis: An Introduction to the History, Theory, and Practice of Electronic Music*. 2nd. edition. Sherman Oaks, CA: Alfred, 1985.
- Diamond, Beverley. "The Interpretation of Gender Issues in Musical Life Stories of Prince Edward Islanders." Forthcoming in *Gender and Music: Negotiating Shifting Worlds*. Edited by Beverley Diamond and Piirko Moisala. Champaign, IL: University of Illinois Press.
- . "Narratives in Canadian Music History." *Canadian Music: Issues of Hegemony and Identity*. Edited by Beverley Diamond and Robert Witmer. Toronto: Canadian Scholars Press, 1994a: 139-172.

- . "Issues of Hegemony and Identity in Canadian Music." *Canadian Music: Issues of Hegemony and Identity*. Edited by Beverley Diamond and Robert Witmer. Toronto: Canadian Scholars Press, 1994b: 1-22.
- Dyson, Frances. "The Genealogy of the Radio Voice." In *Radio Rethink: Art, Sound and Transmission*, ed. D. Augaitis and D. Lander, 167-188. Banff: Walter Phillips Gallery, 1994.
- Eastman, Sheila, and Timothy J. Mcgee. *Barbara Pentland*. Toronto: University of Toronto Press, 1983.
- Eckhardt, Ferdinand. *Music from Within: A Biography of the Composer S.C. Eckhardt-Gramatté*. Winnipeg: University of Manitoba Press, 1985.
- Edwards, Paul. "The Army and the Microworld: Computers and the Politics of Gender Identity." *Signs* (August 1990): 102-127.
- Eimert, Herbert, and Karlheinz Stockhausen, eds. *die Reihe 1*. Bryn Mawr, Pennsylvania: Theodore Presser, 1958 (English edition).
- Emmerson, Simon. "The Relation of Language to Materials." *The Language of Electroacoustic Music*. London: Macmillan, 1986: 17-40.
- Feld, Steven, and Keith H. Basso, editors. *Senses of Place*. Santa Fe, NM: School of American Research, 1996.
- Fernandez, James. "Andalusia on Our Minds: Two Contrasting Places in Spain As Seen in a Vernacular Poetic Duel of the Late-19th Century." In *Cultural Anthropology* 3, 1988 no. 1: 21-35.
- Finn, Geraldine. "The Power of (De)Composition: The (De)Composition of Power." *With A Song in Her Heart: A Celebration of Canadian Women Composers*. Windsor: University of Windsor, 1995: 41-60.
- Fish, Stanley. *Is There A Text In This Class?: The Authority of Interpretive Communities*. Cambridge: Harvard University Press, 1980.
- Ford, Clifford. *Canada's Music: An Historical Survey*. Toronto: GLC, 1985.
- Freire, Paulo. *Pedagogy of the Oppressed*. New York: Continuum, 1988.
- . *Education for Critical Consciousness*. New York: Continuum, 1983.
- Fried, Robert. *The Breath Connection*. New York: Plenum, 1990.

- Frye, Northrop. *The Bush Garden: Essays on the Canadian Imagination*. Toronto: Anansi, 1971.
- Fuller, Sophie. *The Pandora Guide to Women Composers: Britain and the United States, 1629 -- Present*. London: Harper Collins, 1994.
- Gilbert, Reid. "Mounties, Muggings and Moose: Canadian Icons in a Landscape of American Violence" *The Beaver Bites Back? American Popular Culture in Canada*. Edited by David Flaherty and Frank Manning. Montréal: McGill-Queen's University Press, 1993, 178-196.
- Godway, Eleanor, and Geraldine Finn. *Who Is This We? Absence of Community*. Montreal: Black Rose, 1994.
- Gould, Glenn. "Radio As Music: Glenn Gould in Conversation with John Jessop." *The Canada Music Book*, Spring 1971, 13-30.
- — — —. *Glenn Gould's solitude trilogy: three sound documentaries*. PSCD 2003-3. Toronto: CBC, 1992.
- Grant, Judith. "I Feel Therefore I Am: A Critique of Female Experience as the Basis for a Feminist Epistemology." *Women and Politics* 7 no.3, 1987, 99-114.
- Griffiths, Paul. *A Guide to Electronic Music*. London: Thames and Hudson, 1979.
- Guérin, François. "Aperçu du genre électroacoustique au Québec." *Circuit: Électroacoustique-Québec: L'Essor* 4 nos. 1-2, 1993: 9-31.
- — — —. Liner notes. *Anthology of Canadian Music: Electroacoustic Music*. Montreal: Radio Canada International, 1990.
- Hamelin, Louis-Edmond. "Images of the North." *Canadian Nordicity: It's Your North, Too*. Montréal: Harvest House, 1979: 3-13.
- Handler, Richard. *Nationalism and the Politics of Culture in Quebec*. Madison: University of Wisconsin Press, 1988.
- Haraway, Donna. *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York: Routledge, 1991.
- — — —. "The Promises of Monsters: A Regenerative Politics for Inappropriate/d Others." *Cultural Studies*. New York: Routledge, 1992: 295-337.
- Harding, Sandra. *The Science Question in Feminism*. Ithaca, NY: Cornell, 1986.

- Harley, Maria Anna. "Canadian Identity, Deep Ecology and R. Murray Schafer's 'The Princess of the Stars'". *Yearbook of Soundscape Studies*. Tampere: University of Tampere, 1998: 119-142.
- Hartig, Linda. *Violet Archer: A Bio-Bibliography*. New York: Greenwood, 1991.
- Hegi, Ursula. *Tearing the Silence: Being German in America*. New York: Simon and Schuster, 1997.
- Heifeletz, Robin J, editor. *On The Wires of Our Nerves: The Art of Electroacoustic Music*. Lewisburg: Bucknell, University Press, 1989.
- Heikinheimo, Seppo. *The Electronic Music of Karlheinz Stockhausen: Studies on the Esthetical and Formal Problems of its First Phase*. Helsinki: Acta Musicologica Fennica, 1972.
- Hobsbawm, Eric and Terence Ranger, editors. *The Invention of Tradition*. Cambridge: Cambridge University Press, 1985.
- Holler, Linda. "Thinking with the Weight of the Earth: Feminist Contributions to an Epistemology of Concreteness." *Hypatia* 5 (Spring 1990): 1-23.
- Horn, Delton T. *The Beginner's Book of Electronic Music*. New York: Tab, 1982.
- Irigaray, Luce. *Marine Lover of Friedrich Nietzsche*. Translated by Gillian C. Gill. New York: Columbia, 1991.
- Isaak, Jo Anna. "Our Mother Tongue: The Post-Partum Document." *Post-Partum Document*. Edited by Mary Kelly. London: Routledge, 1983: 205-206.
- Jacobs, Gabriel, and Panicos Georghiades. *Music and New Technology: The MIDI Connection*. Wilmslow, England: Sigma, 1991.
- Judd, F.C. *Electronic Music and Musique Concrète*. London: Neville Spearman, 1961.
- Kallmann, Helmut. *A History of Music in Canada, 1534-1914*. Toronto: University of Toronto Press, 1960, revised 1987.
- Kallmann, H., G. Potvin and K. Winters, editors. *Encyclopedia of Music in Canada*, 2nd Edition. Toronto: University of Toronto Press, 1992.
- Keillor, Elaine, and Helmut Kallmann. "Violet Archer": 35-37.
- Istvan Anhalt (Kenneth Winters). "John Beckwith": 98-100.
- Louise Bail Milot: "Claude Champagne": 244-246.
- Kenneth Winters and John Beckwith. "Barbara Pentland": 1032-1034.
- Allan Gillmor and Kirk MacKenzie. "R. Murray Schafer": 1186-1189.
- Brian Cherney (John Beckwith). "Harry Somers": 1235-1238.

- Robert Richard. "Gilles Tremblay": 1311-1313.
Richard Henninger and John Beckwith. "John Weinzweig": 1391-1394.
Helmut Kallmann, Adam P. Woog and Hildegard Westerkamp. "World
Soundscape Project": 1424-1425.
- Kazan, Elia (director). *On the Waterfront*. Produced by Sam Spiegel. Columbia, 1954.
- Keil, Charles and Steven Feld. *Music Grooves: Essays and Dialogues*. Chicago:
University of Chicago Press, 1994.
- Keillor, Elaine. "Indigenous Music as a Compositional Source: Parallels and Contrasts in
Canadian and American Music." In *Taking A Stand: Essays in Honour of John
Beckwith*. Edited by Timothy J. McGee. Toronto: University of Toronto Press,
1995: 185-207.
- Keller, Evelyn Fox. *A Feeling For the Organism: the Life and Work of Barbara
McClintock*. New York: Freeman, 1983.
- — — — . *Reflections on Gender and Science*. New Haven: Yale University Press, 1985.
- Kellogg, Patricia. "Sounds in the Wilderness." *Musical Canada: Words and Music
Honouring Helmut Kallmann*. Edited by John Beckwith and Fred Hall. Toronto:
University of Toronto Press, 1988: 239-261.
- Keane, David. "At the Threshold of an Aesthetic." *The Language of Electroacoustic
Music*. London: Macmillan, 1986: 97-118.
- Kelly, Mary. *Post-Partum Document*. London: Routledge and Kegan, 1983.
- Kristeva, Julia. "Place-Names." *Desire in Language: A Semiotic Approach to Literature
and Art*. New York: Columbia University Press, 1980: 271-294.
- Lampert, Michael R. "Environment, Consciousness, and Magic: An Interview with David
Dunn." *Perspectives of New Music* 27 no. 1, 1989: 96-105.
- Lander, D. and Lexier, M, editors. *Sound by Artists*. Banff, Alberta: Walter Phillips
Gallery, 1990.
- Lazarevich, Gordana. *The Musical World of Frances James and Murray Adaskin*.
Toronto: University of Toronto Press, 1988.
- Lennon, Kathleen, and Margaret Whitford, editors. *Knowing the Difference: Feminist
Perspectives in Epistemology*. London: Routledge, 1994.
- Leyshon, Andrew; David Matless, and George Revill, editors. *The Place of Music*. New
York: Guilford Press, 1998.

- Lippard, Lucy. "Foreword." *Post-Partum Document*. Edited by Mary Kelly. London: Routledge and Kegan, 1983: ii-xii.
- Lloyd, Genevieve. *The Man of Reason: "Male" and "Female" in Western Philosophy*. Minneapolis: University of Minnesota Press, 1984.
- Lockwood, Annea. Liner notes. *A Sound Map of the Hudson River*. New York: Lovely Music, 1989.
- — — —. "Annea Lockwood Interviewed by Stephen Montague, London 21 February 1989." *Contemporary Music Review* 6 no. 1, 1991: 147-150.
- Mackay, Andy. *Electronic Music*. Oxford: Phaidon Press, 1981.
- MacMillan, Ernest, editor. *Music in Canada*. Toronto: University of Toronto Press, 1955.
- MacMillan, Keith, and J. Beckwith, editors. *Contemporary Canadian Composers*. Toronto: Oxford University Press, 1955.
- Maconie, Robin. *The Works of Karlheinz Stockhausen*. London: Oxford University Press, 1976.
- Manning, Frank. "Reversible Madness." *The Beaver Bites Back? American Popular Culture in Canada*. Edited by David Flaherty and Frank Manning. Montréal: McGill-Queen's University Press, 1993: 3-28.
- Manning, Peter. *Electronic and Computer Music*. 2nd edition, Oxford: Oxford University Press, 1993; 1st edition, Clarendon Press, 1985.
- Mathews, Max, and John Pierce, editors. *Current Directions in Computer Music Research*. Cambridge, MA: MIT Press, 1989.
- McCartney, Andra. "Inventing Images: Constructing and Contesting Gender in Thinking about Electroacoustic Music." *Leonardo Music Journal* 5, 1995: 57-66.
- — — —. "Creating Worlds for my Music to Exist: How Women Composers of Electroacoustic Music Make Place for their Voices." Master's thesis, Graduate Program in Music, York University, 1994.
- — — —. "The Science and Technology Careers Workshop: Integrating Feminist Perspectives in Residential Science Education." *Resources for Feminist Research* 20 no. 2, 1991: 50-51.
- McClary, Susan. "Narrative Agendas in "Absolute" Music: Identity and Difference in Brahms's Third Symphony." *Musicology and Difference: Gender and Sexuality in*

- Music Scholarship*. Edited by Ruth A. Solie. Berkeley: University of California Press, 1993: 326-344.
- — — —. *Feminine Endings: Music, Gender and Sexuality*. Minneapolis: University of Minnesota Press, 1991.
- — — —. "Terminal Prestige: The Case of Avant-Garde Music Composition." *Cultural Critique* 12, 1989: 57-81.
- McCreless, Patrick. "Rethinking Contemporary Music Theory." *Keeping Score: Music, Disciplinarity, Culture*. Edited by David Schwarz, Anahid Kassabian, and Lawrence Siegel. Charlottesville, Virginia: University Press of Virginia, 1997: 27-46.
- McGee, Timothy J. *The Music of Canada*. New York: Norton, 1985.
- McGregor, Gail. *The Wacousta Syndrome: Explorations in the Canadian Landscape*. Toronto: University of Toronto Press, 1985.
- McKay, Ian. *The Quest of the Folk: Antimodernism and Cultural Selection in Twentieth-Century Nova Scotia*. Montréal: McGill-Queens University Press, 1994.
- Mezirow, J. "Transformation Theory." *Proceedings of the Twenty-Ninth Annual Adult Education Research Conference*. Calgary, AB: University of Calgary, 1988: 223-227.
- Morgan, Robert. "Musical Time/Musical Space." *Critical Inquiry* 7, 1980: 527-538.
- Murray, Joan. *Best of the Group of Seven*. Edmonton: Hurtig, 1984.
- Nagel, Hans-Jürgen. *Stockhausen in Calcutta*. Translated by Sharmila Rose. Calcutta: Seagull, 1984.
- Nattiez, Jean-Jacques, editor. *The Boulez-Cage Correspondence*. Translated by Robert Samuels. Cambridge: Cambridge University Press, 1993.
- Nevins, Maureen. *Claude Champagne: Composer, Teacher, Musician*. Ottawa: National Library of Canada, 1990.
- Newquist, H.P. *Music and Technology*. New York: Billboard, 1989.
- Norman, Katharine. "Telling Tales." *Contemporary Music Review* 10 no. 2, 1994: 103-109.
- Oehlschlägel, Reinhard. Liner notes to Karlheinz Stockhausen's *Mantra*. CD. San Francisco: New Albion, 1990.

- Oliveros, Pauline. *Software for People*. Baltimore, MD: Smith, 1984.
- . *Sonic Meditations*. Baltimore, MD: Smith, 1974.
- Oliveros, Pauline, and Fred Maus. "A Conversation about Feminism and Music." *Perspectives of New Music* 32 no. 2, 1994: 174-193.
- Pantin, Gerard. *The Silent Prophet*. Port-of-Spain, Trinidad: SERVOL, 1982.
- Pegley, Karen. "'Justify Whose Love': Queer(y)ing the Reception of Madonna." Conference presentation. International Association for the Study of Popular Music, Havana Cuba, October 8, 1994.
- Pellman, Samuel. *An Introduction to the Creation of Electroacoustic Music*. Belmont, CA: Wadsworth Publications, 1994.
- Pennée, Donna Palmateer. "Après Frye, rien? Pas du tout! From Contexts to New Contexts." *New Contexts of Canadian Criticism*. Peterborough, Ontario: Broadview, 1997: 202-219.
- Peysner, Joan. *Boulez*. New York: Schirmer, 1976.
- . *Twentieth Century Music: The Sense Behind the Sound*. New York: Schirmer, 1971.
- Pierce, John. "Introduction." *Current Directions in Computer Music Research*. Edited by Max Mathews and John Pierce. Cambridge, MA: MIT Press, 1989: 1-4.
- Polansky, Larry. "A Review of Arts/Sciences: *Alloys* by Iannis Xenakis." *Leonardo* 23 no. 4, 1990: 385-388.
- . "The Early Works of James Tenney." *Soundings* 13. Santa Fe, NM: Soundings Press, 1984: 119-274.
- Proctor, George. *Canadian Music of the Twentieth Century*. Toronto: University of Toronto Press, 1980.
- Robbins, James. "What Can We Learn When They Sing, Eh? Ethnomusicology in the American State of Canada." *Canadian Music: Issues of Hegemony and Identity*. Edited by Beverley Diamond and Robert Witmer. Toronto: Canadian Scholars Press, 1994: 193-202.
- Rodman, Margaret C. "Empowering Place: Multilocality and Multivocality." *American Anthropologist* (September 1992): 640-656.

- Rosaldo, Renato. "Ideology, Place, and People without Culture." *Cultural Anthropology* 3 no. 1, 1988: 77-87.
- Ross, Andrew. "Hacking Away at the Counter-Culture." *Technoculture*. Edited by Constance Penley and Andrew Ross. Minneapolis: University of Minnesota Press, 1991: 107-134.
- Rutherford, Paul. "Made in America: The Problem of Mass Culture in Canada." *The Beaver Bites Back? American Popular Culture in Canada*. Edited by David Flaherty and Frank Manning. Montréal: McGill-Queen's University Press, 1993: 260-280.
- Salzman, Eric. *Twentieth Century Music: An Introduction*. Englewood Cliffs, NJ: Prentice-Hall, 1967.
- Sayers, Janet. *Biological Politics*. London: Tavistock Publications, 1982.
- Schafer, Murray. "Canadian Culture: Colonial Culture." *Canadian Music: Issues of Hegemony and Identity*. Edited by Beverley Diamond and Robert Witmer. Toronto: Canadian Scholars' Press, 1994: 221-238.
- — — —. *Voices of Tyranny, Temples of Silence*. Indian River, Ontario: Arcana Editions, 1993.
- — — —. *The Tuning of the World*. New York: Knopf, 1977.
- Schaeffer, John. *New Sounds: A Listener's Guide to New Music*. New York: Harper and Row, 1987, 1-49.
- Schaeffer, Pierre. *L'oeuvre Musicale*. France: INA-GRM, 1990.
- — — —. *La Musique Concrète*. Paris: Presses Universitaires de France, 1967.
- Schelde, Per. *Androids, Humanoids, and Other Science Fiction Monsters: Science and Soul in Science Fiction Films*. New York: New York University Press, 1993.
- Schrader, Barry. *Introduction to Electroacoustic Music*. Englewood Cliffs, NJ: Prentice-Hall, 1982.
- Schryer, Claude. "Electroacoustic Music in the Fifth Stream." *The Fifth Stream: Proceedings of the Festival-Conference*. Toronto: Institute for Canadian Music, 1991: 67-70.
- Schwartz, Elliott, and Barney Childs. *Contemporary Composers on Contemporary Music*. New York: Da Capo Press, 1978.

- Schwarz, David. "Listening Subjects: Semiotics, Psychoanalysis, and the Music of John Adams and Steve Reich." *Keeping Score: Music, Disciplinarity, Culture*. Edited by David Schwarz, Anahid Kassavian, and Lawrence Siegel. Charlottesville, VA: University Press of Virginia, 1997: 275-298.
- Schwarz, Elliot, and Daniel Godfrey. *Music Since 1945: Issues, Materials, and Literature*. New York: Schirmer, 1993.
- Scott, Ridley (director). *Alien*. Fox film 01090, 1979.
- Shepherd, John. "Value and Power in Music: An English Canadian Perspective." *Relocating Cultural Studies: Developments in Theory and Research*. Edited by Valda Blundell, John Shepherd and Ian Taylor. London: Routledge, 1993: 171-206.
- Smalley, Dennis. "Spectro-morphology and Structuring Processes." *The Language of Electroacoustic Music*. London: Macmillan, 1986: 61-96.
- — — — . "The Listening Imagination: Listening in the Electroacoustic Era." In *Companion to Contemporary Musical Thought*, edited by J. Paynter, T. Howell, R. Orton, and P. Seymour. London: Routledge, 1992.
- Smith, Catherine Parsons. "'A Distinguishing Virility.' Feminism and Modernism in American Art Music." In *Cecilia Reclaimed: Feminist Perspectives on Gender and Music*. Cook, Susan, and J.Tsou, editors. Urbana: University of Illinois Press, 1994, 90-106
- Soja, E.W. *Postmodern Geographies: The Reassertion of Space in Critical Social Theory*. New York: Verso, 1989.
- Solie, Ruth. "Introduction: On 'Difference'". In *Musicology and Difference: Gender and Sexuality in Music Scholarship*, Ruth Solie, editor. Berkeley: University of California Press, 1993.
- Stacey, Peter F. *Boulez and the Modern Concept*. Aldershot, UK: Scolar, 1987.
- Stokes, Martin, editor. *Ethnicity, Identity and Music: The Musical Construction of Place*. Oxford: Berg, 1994.
- Stokes, Martin, editor. *Ethnicity, Identity and Music: The Musical Construction of Place*. Oxford: Berg, 1994.
- Stroppa, Marco. "The Analysis of Electronic Music." *Contemporary Music Review*, I, 1984: 175-180.
- Such, Peter. *Soundprints: Contemporary Composers*. Toronto: Clarke Irwin, 1972.

- Tannenbaum, Mya. *Conversations with Stockhausen*. Oxford: Clarendon Press, 1987.
- Tedlock, Dennis and Bruce Mannheim. *The Dialogic Emergence of Culture*. Chicago: University of Illinois Press, 1995.
- Tedlock, Barbara, editor. *Dreaming: Anthropological and Psychological Interpretations*. Cambridge: Cambridge University Press, 1987.
- Tedlock, Dennis and Barbara, editors. *Teachings from the American Earth: Indian Religion and Philosophy*. New York: Liveright, 1975.
- Tedlock, Dennis. *Finding the Center*. New York: Dial Press, 1972.
- Tenney, James. *Meta-Hodos and Meta-Meta-Hodos A Phenomenology of 20th-Century Musical Materials and An Approach to the Study of Form*. Hanover, NH: Frog Peak, 1992 (originally published 1964).
- Théberge, Paul. *Any Sound You Can Imagine: Making Music/Consuming Technology*. Hanover, NH: Wesleyan, 1997.
- Tippett, Maria. *By A Lady: Celebrating Three Centuries of Art by Canadian Women*. Toronto: Penguin, 1992.
- Trinh, Minh-Ha, T. *When the Moon Waxes Red: Representation, Gender and Cultural Politics*. New York: Routledge, 1991.
- Torigoe, Keiko. "A Study of the World Soundscape Project." Toronto: York University, M.F.A. thesis, 1982.
- Truax, Barry. *Acoustic Communication*. Ablex: Norwood, NJ, 1984.
- . "Soundscape, Acoustic Communication and Environmental Sound Composition." *Contemporary Music Review*, 15 (1), 1996: 49-65.
- . "Sounds and Sources in Powers of Two: Towards a Contemporary Myth." *Organized Sound*. Cambridge: Cambridge University Press, 1996.
- Tuan, Yi Fu. *Space and Place: The Perspective of Experience*. Minneapolis: University of Minnesota, 1977.
- Tuana, Nancy, ed. *Feminism and Science*. Bloomington: Indiana University Press, 1989.
- Tucker, Mark. "Of Men and Mountains: Ives in the Adirondacks." *Charles Ives and His World*. Edited by J. Peter Burkholder. Princeton, NJ: Princeton University Press, 1996: 159-186.

- Turkle, Sherry and Seymour Papert. "Epistemological Pluralism: Styles and Voices Within the Computer Culture." *Signs* (Autumn 1990): 128-157.
- Turkle, Sherry. *The Second Self*. New York: Simon and Schuster, 1984.
- Valaskakis, Gail Guthrie. "Postcards of My Past: The Indian as Artefact." In *Relocating Cultural Studies: Developments in Theory and Research*, edited by Valda Blundell, John Shepherd and Ian Taylor. London: Routledge, 1993: 155-170.
- Waterman, Ellen. "Confluence and Collaboration, Part 2: Performing R. Murray Schafer's And Wolf Shall Inherit the Moon." *Musicworks* 72, 1998a: 16-25.
- . "Wolf Music: Style, Context, and Authenticity in R. Murray Schafer's And Wolf Shall Inherit the Moon." *Canadian University Music Review*. 18/2 1998b: 72-88.
- Wayman, Tom. *A Country Not Considered: Canada, Culture, Work*. Concord: Anansi, 1993.
- Wernick, Andrew. "American Popular Culture in Canada: Trends and Reflections." In Flaherty, David, and Frank Manning, editors. *The Beaver Bites Back? American Popular Culture in Canada*. Montréal: McGill-Queen's University Press, 1993: 293-302.
- Woodward, Kathleen. "From Virtual Cyborgs to Biological Time Bombs: Technocriticism and the Material Body." *Culture on the Brink: Ideologies of Technology*, edited by Gretchen Bender and Timothy Druckrey. Seattle: Bay Press, 1994: 47-64.
- Xenakis, Iannis. *Formalized Music: Thought and Mathematics in Composition*. Bloomington, Indiana: Indiana University Press.
- Wishart, Trevor. "Sound Symbols and Landscapes." In *The Language of Electroacoustic Music*, edited by Simon Emmerson. London: Macmillan, 1986.
- Zukin, Sharon. "Market, Place and Landscape." In *Landscapes of Power: From Detroit to Disney World*. Berkeley: University of California Press, 1993: 3-25.

Appendix A

North and South

Fernandez reading D. Campbell and R. Levine *Ethnocentrism* (New York: Wiley, 1968).

northerners see themselves as:

of strong character
powerful militarily
economically vigorous
good organizers
industrious, hardworking
reliable
manly
serious
thrifty

southerners see themselves as:

eloquent
artistic
socially refined
patient
clever, intelligent
obliging
graceful
amiable
generous

southerners see northerners as:

powerful economically
powerful militarily
hardworking, energetic
physically strong
slow and heavy
rough and dirty
egocentric
stingy
pessimistic
hard-hearted
serious
stupid
fanatic

northerners see southerners as:

economically weak
militarily weak
lazy
weak
quick and fast
amiable and oily
unreliable
wasteful
optimistic
lighthearted
crafty
clever
spineless

Appendix B

Northernness and Canonicity

Walk into the lobby of the Canadian Music Centre in Toronto, and you will see a poster that proclaims "Canadian Composers Live." The final "n" of the word "Canadian" is tilted to one side, and shown as the cartographic symbol for North, invoking mapping, exploration, and northernness.

A mythology of the Canadian artist as northern explorer defined for decades what constituted a specifically Canadian visual art. In her discussion of the National Gallery's project to reproduce Canadian art and distribute these reproductions to schools, Joyce Zemans has argued that this was a constructed mythology, intended to inspire young artists of Canada with a heroic image of Canadian romantic adventurers.¹⁷⁴

The moral order of nature and the mythic notion of the heroic wilderness shaped the new Canadian icon. Little matter that the site of the wilderness was often, in reality, cottage country to the Toronto (and American) elite or had been designated national parkland decades earlier. The American transcendentalist vision of the land as the spiritual site of nationhood would equally serve Canada's twentieth-century search for national symbols.... That the goal was to construct a coherent history and an autonomous identity through the aesthetic construct of the landscape is clear ... Thomson and the Group of Seven were presented as the culmination of that tradition. (Zemans 1995: 17)

Zemans notes that no urban scenes were included in the reproduction series, and few questions were raised about the lack of representation of women artists "in an aesthetic construct in which ruggedness, vigour and drama (terms regularly employed by Lismer in his description of works included in the National Gallery series) were considered the highest praise" (Zemans 1995: 30). Maria Tippett notes that those women who were recognized were judged by their similarity to this dominant aesthetic:

The closer these women came in style and content to the Group of Seven in their interpretation of their particular region, the more chance they had of selling their work, attracting favourable reviews and of seeing it exhibited by the leading organizations and the private and public art galleries. When they diverged from the norm their work was politely set aside. (1992: 85)

¹⁷⁴ I remember going to the McMichael collection with my parents shortly after arriving in Canada at the age of twelve. It was a mythic and romantic image that particularly appealed to us as new immigrants. I was especially drawn to the spiritual spareness in the far northern work of Lawren Harris.

This strong mythology of the artist as rugged explorer had a profound influence on what constituted Canadian landscape painting during this period.

The situation of music initially seems somewhat different. The power of the concept of absolute purity or self-referentiality embodied in the ideal of absolute music has led some contemporary Canadian composers to view music that refers to place as somehow suspect, using terms such as "mediocre" to describe "nationalist" music, avoiding the labelling that is accorded to composers who use folk motifs, or rejecting the use of descriptive titles as limiting the perspective of the audience. Within music, the idea of the autonomy and purity of "the music itself" means that few composers have been willing to be thought of as Canadian composers, and even fewer have aspired to the label of "regional" composers, by writing music that specifically refers to the environment around them. Unlike with landscape artists following the Group of Seven, there has not been an approach to Canadian nationalist music defined by a school following the work of an individual or group of composers of like mind. Even some of those composers whose works have been perceived by others as Canadian, northern, or regional, such as Harry Somers or Murray Adaskin, have shown evidence of discomfort with this role. Ford notes:

Where a composer has consciously directed his musical expression in a distinctively Canadian way, such as Beckwith, no following has been developed ... most composers have called upon texts, landscape painting, or subjects of a Canadian nature, but this represents only a fraction of their total output. (1985: 241)

Nevertheless, there are a few Canadian composers, with increasing numbers in the last few decades, who have written music that specifically refers to the Canadian environment, and have also been unequivocal in their assertion of the importance of the environment in the compositional process. I decided it would be interesting to look at the canonical positions of these composers, to see whether, as with the Group of Seven, an "idea of North" defines what counts as Canadian music, within the circumscribed category of music that refers to place.

In order to understand the canonical positions of these composers, I looked at several markers. I consulted the library catalogues of several Canadian and international libraries¹⁷⁵ to compile data on the numbers of works held by a selection of Canadian composers. I referred to the major Canadian music historical texts to see how often these

¹⁷⁵ This library search was completed in the spring and summer of 1997. My selection of both Canadian and international libraries was partly determined by their ease of use over the internet. If I found it particularly difficult to make or maintain a connection with a particular library, as happened frequently, I excluded it from my search. I included Simon Fraser University because it is the institution most closely associated with Westerkamp. Beyond that, I attempted to include institutions with large music programs, if possible. Because this search was conducted over the internet, there is a preponderance of libraries in North America, Europe, and Japan, where internet use was most extensive in 1997. It would be interesting, but was beyond the scope of this study, to look at which specific works were referenced in each library. As in Appendix C, I did not have information regarding the total holdings or budgetary restrictions of each library.

composers and their works were mentioned. I checked to see how many works by each of these composers were held by the Canadian Music Centre (CMC) distribution service, and how much each of these composers was represented in the CMC's *Teacher's Guide to Canadian Music*, produced as a syllabus guide for secondary schools in Canada. I consulted the *Encyclopedia of Canadian Music* to see how extensive entries were for each of these composers. The results of this research are summarized at the end of this Appendix. It could be argued that this research is neither extensive nor specific enough to provide a definitive index of canonicity. For instance, I do not include any American Ivy League universities, nor any information on which specific works are included at each library. Had the canonic question been the primary one in this dissertation, I would have undertaken such detailed work. However, it is beyond the scope of this study. This library and textual research does provide some valuable indicators of the relative visibility of different Canadian composers in a number of different contexts, both in Canada and internationally.

I chose some composers for my sample who are portrayed in the literature primarily as composers of absolute or 'universal' music, even though they may have produced a few pieces that referred to the Canadian environment. Barbara Pentland is described as "an artist fully at home with the abstract (or 'absolute') prototypes of Western music" (Winters and Beckwith 1992: 1033), and her biographers describe her as "not a nationalistic composer" (Eastman and McGee: 1983: 9).¹⁷⁶ John Weinzwieg is discussed as the writer of the "first Canadian music to explore serial technique" (Henninger and Beckwith 1992: 1392).¹⁷⁷ Gilles Tremblay's work is described in absolute terms: "a preoccupation with sound elements is the primary unifying force of Tremblay's work" (Richard 1992: 1312)¹⁷⁸. Harry Somers is included as an example of a composer who has sometimes been ambivalent about his references to the sound environment, but is nevertheless recognized for this work. Violet Archer is not recognized for her use of natural imagery, but has described a Canadian aesthetic based on natural imagery, including her own music in this description. Claude Champagne, John Beckwith, and Murray Schafer are all composers who unequivocally turn to the sound environment as a musical source.

There is a distinction between the music-historical textbooks, published up until the early 1980s, and the current library holdings. In the music-historical texts, Somers is referenced the most in every text, followed by Weinzwieg, Schafer (in Proctor these two are reversed), Pentland and then Beckwith (in Ford these two are reversed), then

¹⁷⁶ One environmentally-inspired piece is *Suite Borealis*, which Pentland describes as "an imaginative journey across Canada as our forefathers might have experienced it ... suite of the North" (Proctor 1980: 167).

¹⁷⁷ Weinzwieg also composed a great deal of film music, including that for the *Story of Tom Thomson*, and music for radio dramas. It is his concert music which is represented in most detail in the musicological literature, however. His one famous piece that uses Inuit music as a theme is *Edge of the World*. This was modified from music originally produced for a radio drama.

¹⁷⁸ Tremblay has composed a piece that refer to an outside environment, but a universal one rather than a specific Canadian place: *Solstices* (1971) "whose charts are intended for different realizations according to the hemispheric location, the season, and the time of day" (Beckwith 1979: unpaginated).

Champagne, Tremblay and Archer. This gives more recognition to the composers concerned with absolute and universal music than to nationalist or regional composers, except for Schafer and perhaps Somers. At the end of his book, Proctor signals a possible change. The last chapter, entitled "Recent Trends," begins with an excerpt from Schafer's "Music in the Cold." It ends with a quote by Yehudi Menuhin, who commented:

that he found Canadian music ... to be particularly sensitive to the sounds of nature. It would be nice to think that this is so [says Proctor] and that down the road of history men and women will link Canadian music to nature in this way (1980: 214)

More recent references in the Canadian Music Centre catalogue and guide, *Encyclopedia of Music in Canada*, and my current library research indicates a change to favour Canadian music that refers to nature and northernness. The encyclopedia references are fairly even-handed: most of the older composers receive between two and three pages, the younger composers less. Schafer's is the only entry to exceed three pages. It is in the library references that Schafer receives by far the most attention of all the composers. Within Canada there are almost twice as many (744) as Harry Somers, the next most-referenced composer (430). This is similar to the difference between Schafer (33) and Somers (19) in the CMC recording research. In the library references, composers that I defined as more concerned with absolute music seem to be mixed fairly evenly with those who produce more music concerned with the environment: Weinzweig comes right after Somers but ahead of Beckwith, Pentland ahead of Champagne. The francophone composers, near the bottom of the library list, are referenced much more at the University of Toronto and in francophone universities than elsewhere in Canada. Library references to Schafer's work are much more extensive than for other composers. What is the basis of this renown? I will suggest some possibilities later in this chapter.

Beckwith's positioning surprised me. Anhalt says of John Beckwith "By the end of the 1970s, Beckwith ... had ... asserted himself as perhaps the most characteristically English-Canadian voice in composition" (Anhalt 1992: 99), and McGee writes in 1995: "It is not an exaggeration to say that John Beckwith has been the single most important influence on Canadian music over the past forty years" (1995: 5), yet Beckwith (289) has fewer references than Schafer, Somers, and Weinzweig (357), and just a few more than Violet Archer (261) in Canadian library references in my sample. Also, he is low in the textbook references chart and the CMC recordings chart. Is this diminished canonical position in part because of his refusal to promulgate a northern Canadian mythology, focusing more on particular times and places in the history and geography of southern Ontario?

Internationally, the gap between Schafer and other composers widens considerably. He is the only Canadian composer in my sample to be represented at all of the libraries that I contacted. There are four times as many references to Schafer (81) as to Beckwith (19), the next composer on the list. And many of the others almost disappear, except in the library of Southwest Germany.

There are several possible explanations for the increased references to Schafer. He is prolific. Like John Cage, he has written extensively as well as composed. He has also been very active as a researcher and educator, publishing many books on listening exercises and music education.¹⁷⁹ Yet Somers and Beckwith have also published actively. Perhaps because of his university position, more of Beckwith's writing has focused on other composers: note that many of the entries in the *Encyclopedia of Canadian Music* are co-authored by Beckwith. Schafer has also established his own publishing company, taking more control over the process of disseminating his work.

Schafer's work is innovative, opening up new ways of thinking about spatiality and performance, and the integration of music with other disciplines. This could also be said of Beckwith's work, as well as Westerkamp's, although no other Canadian composer has produced music theatre on the scale that Schafer has.

Schafer's work also accepts and promulgates a mythology of northernness, as set out in "Music in the Cold" (ACM 1: 1979). He uses imagery that emphasizes rugged individuality and exploration similar in many ways to the image constructed around the Group of Seven. "Music in the Cold," like the image of Tom Thomson, is a heroic image of northern endurance and fortitude that would fit with the more positive aspects of international stereotypical conceptions of Canada as a northern country. "Music in the Cold" emphasizes purity and form, qualities also associated with absolute music. It can thus allay fears of excessive subjectivity. It associates the composer's work with the stereotypically masculine virtues of form, ruggedness, strength, purity, and exploration.

Several articles have appeared recently that discuss Schafer's work as depictions of authentic Canadian culture linked to ideas of wilderness, ruggedness, and austerity.¹⁸⁰ Only passing references are made to several issues that I have raised here in relation to the construction of Canadian identity: that Schafer uses Native themes to represent wilderness within a Western art framework; that his wilderness locations, as with the Group of Seven, are cottage areas and parks; that his mythology is constructed to excise the urban and the technological, as I discuss further in the chapter on Westerkamp's *Cricket Voice*. These recent additions to the Canadian musicological literature celebrate Schafer's work as emblematic of an authentic Canadian mythology, glossing over how this mythology is constructed, and what it might exclude or appropriate.

Literary and art critics such as Northrop Frye and Arthur Lismer have contrasted an exploratory-romantic mythology with a pastoral one in the artistic composition of Canadian identity, clearly privileging the former in their construction. Might the work of such composers as John Beckwith and Hildegard Westerkamp, concerned more often with local, urban, multiple, and multi-layered mythologies of particular places more than an over-arching mythological vision of northernness as the essential Canadian attribute,

¹⁷⁹ *The Thinking Ear: Complete Writings on Music Education*. Toronto: Arcana, 1986. *A Sound Education*. Indian River: Arcana, 1992. *The Book of Noise*. Indian River: arcana, 1998.

¹⁸⁰ See for instance Maria Anna Harley, 1998; Ellen Waterman, 1998 a and b.

be construed as musical versions of pastoral mythologies, and thus valued less than the work which represents the romantic-exploratory myth?

While the idea of the artist as northern explorer dominated the Canadian art scene for decades, it has never exerted quite the same hold in Canadian music. At the same time, the idea of North still appears to affect canonicity to some extent in Canadian concert music, especially in more recent years. In particular, composer R. Murray Schafer's "Music in the Cold" has created an image of the Canadian composer as northern explorer which has suffused his later writings, aspects of his music, and writings about him by others. Schafer's actual practice of composition could be characterized as concerned as much with surface as with form, as much colourful social spectacle as strong and free isolation. Nevertheless, he does not represent it this way. His music and the myth of rugged purity that surrounds it, more than that of any other composer in my sample, currently represents contemporary Canadian concert music both nationally and internationally.

References to Selected Canadian Composers in Canadian Music Historical Texts

These are from index listings. Where listings included pieces as well as general references to the composers, the numbers of references to pieces are indicated in parentheses.

Name	Walter '69	Proctor '80	Ford '82	McGee '85	Total
Harry Somers	33 (14)94 (45)13		8	147 (59)	
John Weinzweig	30 (10)67 (32)10		8	115 (42)	
R. Murray Schafer	14 (8)82 (35)10		7	113 (43)	
Barbara Pentland	14 (10)52 (27) 4		5	75 (37)	
John Beckwith	13 (4)39 (22)10	4		66 (26)	
Claude Champagne	25 (10)25 (10) 5		7	62 (20)	
Gilles Tremblay	5 (3)29 (9) 2		4	40 (12)	
Violet Archer	5 (4)26 (20) 2		3	36 (24)	

Such, 1972:

Discussions of John Weinzweig, Harry Somers, John Beckwith, Murray Schafer.

Inclusion of Selected Canadian Composers in CMC Teacher Guide and CD Catalogue

Totals are included for references to the numbers of pieces by each composer listed in the CMC catalogue, which includes CMC Centre disk recordings as well as independent publishers; the Teacher's Guide audiocassette contents; OAC suggested listening guide with CMC references.

Name	Catalogue	TG Listening	OAC listing	Total
R. Murray Schafer	27	3	3	33
Harry Somers	11	3	5	19
John Weinzweig	14	2	3	19
Gilles Tremblay	7	0	1	8
John Beckwith	4	1	2	7
Barbara Pentland	2	1	3	6
Claude Champagne	2	1	1	4
Violet Archer	2	1	1	4

Holdings authored by Selected Canadian Composers at Selected Canadian and International Libraries.

Canada

Name	Dal.	York	UT	UWO	SFU	UQ	Con.	UM	Total
R. Murray Schafer	61	97	149	142	98	48	36	113	744
Harry Somers	31	60	68	109	30	28	20	84	430
John Weinzweig	37	51	99	84	26	18	18	24	357
John Beckwith	44	68	89	25	15	9	22	289	
Violet Archer	9	21	64	91	16	15	17	28	261
Barbara Pentland	22	27	18	42	25	17	8	17	176
Claude Champagne	6	17	16	45	6	41	1	23	155
Gilles Tremblay	12	17	18	31	11	27	3	36	155

International

UKY	Sto.	Mel.	SWG	UCR	Tok.	NYC	BPI	Total	
R. Murray Schafer	1	1	44	4	15	1	12	3	81
John Beckwith	1	1	2	4	0	5	6	19	
John Weinzweig	0	0	3	1	7	1	0	0	12
Violet Archer	1	0	0	4	0	0	2	0	7
Harry Somers	1	0	0	1	0	0	0	0	2
Barbara Pentland	0	0	0	1	0	0	0	1	2
Claude Champagne	0	0	0	1	0	0	0	1	2
Gilles Tremblay	0	0	0	1	0	0	0	0	1

SFU=Simon Fraser U.

York=York U., Toronto

UT=University of Toronto

Con=Concordia University

UKY=U. of York, England

Mel.=Univ. of Melbourne

UCR=Univ. of California, Riverside

NYC=Columbia U., NYC, USA

UQAM=Université de Québec à Montréal

Dal.=Dalhousie University, Halifax, NS

UWO=Univ. of Western Ontario

UM=Université de Montréal

Sto.=Stockholm University, Sweden

SWG=SouthWest German Library

Tok=University of Tokyo, Japan

BPI=Bibliothèque Publique d'Information, Paris FR

Appendix C

Textbook Titles and Chapter Headings

Appleton, Jon H. and Ronald C. Perera, editors. *The Development and Practice of Electronic Music*. Englewood Cliffs, NJ: Prentice-Hall, 1975.

Headings:

History, Acoustics, Tape Studio, Voltage-Controlled Synthesizer, Digital Computers, Live-Electronic Music.

Chadabe, Joel. *Electric Sound: The Past and Promise of Electronic Music*. Upper Saddle River, NJ: Prentice Hall, 1997.

Headings:

The Early Instruments, The Great Opening Up of Music to All Sounds, Expansion of the Tape Music Idea, Out of the Studios, Computer Music, Synthesizers, The MIDI World, Inputs and Controls, Making Sound, Automata, Interaction, Where Are We Going?

Deutsch, Herbert A. *Electroacoustic Music: The First Century*. Miami, FL: Belwin Mills, 1993.

1st part:

Cahill, Theremin, Martenot, Bode, Les Paul, Luening and Ussachevsky, Columbia, Raymond Scott, Minimoog, Matthews, Dave Smith and MIDI.

2nd part:

Sound, Acoustics, Tape Recording, Synthesis, MIDI, computers.

— — — — . *Synthesis: An Introduction to the History, Theory, and Practice of Electronic Music*. 2nd. edition. Sherman Oaks, CA: Alfred, 1985.

Musical vocabulary, History, Tape Recording Techniques, Electronic Synthesis, two chapters on synthesizers.

Griffiths, Paul. *A Guide to Electronic Music*. London: Thames and Hudson, 1979.

Headings:

Introduction, out of the known [concrète], the electronic voice, out of the unknown [electronic], the instrument and its double [instrumental], rock, electronic instruments, live electronic ensembles, the music of the world [contemporary].

Horn, Delton T. *The Beginner's Book of Electronic Music*. New York: Tab, 1982.

Headings:

Sound and acoustics, sound sources for electronic music, creating new waveshapes, filters, amplifiers, modulation, special purpose devices, controllers, designing and electronic music studio, recording, patching, electronic composition, *musique concrète*, sonic environments, live performance, synthesizers, computers and music, the future of electronic music.

Jacobs, Gabriel, and Panicos Georghiades. *Music and New Technology: The MIDI Connection*. Wilmslow, England: Sigma, 1991.

The MIDI studio, computers for music, MIDI theory, interfaces and accessories, sequencers, instruments, output, creative sound, practical sound, adding acoustic sounds, aids to composition, music notation software, musical education, selling music, postface.

Mackay, Andy. *Electronic Music*. Oxford: Phaidon Press, 1981.

Part I: The Instruments. History, commercial studio, classic studio acoustics and synthesis, amplifiers and loudspeakers, electronic guitar, synthesizer, live electronics, multimedia, rock, computers.

Part II: The music, Electronics and the orchestra, tape music, the electronic studio, Europe and America, Electronics in performance—Cage, The revolution in notation, Images of nature, Music and movement, the business.

Part III: The musicians.

Manning, Peter. *Electronic and Computer Music*. 2nd edition, Oxford: Oxford University Press, 1993; 1st edition, Clarendon Press, 1985.

The background, to 1945

Developments from 1945 to 1960

Paris and *Musique Concrète*; Cologne and *Elektronische Musik*; Milan and elsewhere in Europe; America

New horizons in electronic design

The voltage-controlled synthesizer

The electronic repertory from 1960

Works for tape

Live electronic music

Rock and pop electronic music

The digital revolution

Computer music

Conclusion

Mathews, Max, and John Pierce, editors. *Current Directions in Computer Music Research*. Cambridge, MA: MIT Press, 1989.

Selection of article titles:

Compositional Applications of Linear Predictive Coding

Synthesis of singing by rule

Simulating performance on a bowed instrument

Automatic counterpoint

The conductor program and mechanical baton

Composing with Computers—A Survey of Some Compositional Formalisms and Programming Languages

Newquist, H.P. *Music and Technology*. New York: Billboard, 1989.

Headings:

Sound, the history of electronic music technology, computers, the ins and outs of MIDI, synthesizers, drums guitars and winds, sampling, music software, signal processing, live performance, home and studio recording, the future of music technology.

Pellman, Samuel. *An Introduction to the Creation of Electroacoustic Music*. Belmont, CA: Wadsworth Publications, 1994.

From sound to electricity and back [acoustics], music from tape recorders, digital recording, multi-track recording and mixing, MIDI, advanced MIDI networks, Tone colors, Analog sound synthesis, Digital sound sampling and synthesis, Composing electroacoustic music, the audience for electroacoustic music, Technology and music: from the past to the future

Schrader, Barry. *Introduction to Electroacoustic Music*. Englewood Cliffs, NJ: Prentice-Hall, 1982.

Headings:

Introduction, *Musique Concrète* and tape manipulation techniques, Electronic music, Synthesizers, Computer Music, Live-Electronic music, real-time electronic music, Interviews with composers

Appendix D

Soundscape Works Appearing in Recorded Anthologies of Electroacoustic Music

During the spring of 1997, I listened to every anthology entitled *Electroacoustic Music* or *Electronic Music* available through the York University and University of Toronto libraries, and made note of the appearance in them of soundscape pieces. In some cases, these were national collections (Canada, Australia and Sweden). In others, the anthologies were associated with a particular studio, producer or international competition. I noted in each case how many pieces referred to either environmental sounds or processes in liner notes, and how many worked with recognizable environmental sounds in context, in which case I classify them as soundscape compositions. I also listened to several recordings entitled *Musique Concrète*, and specifically associated with the French GRM studio. An annotated discography appears at the end of this appendix.

National Collections

National collections for Australia, Sweden and Canada were all listed under the general title *Electroacoustic Music*, and produced by national organizations.¹⁸¹ I listened to two Australian anthologies, produced in 1994 and 1996. Each included six pieces by six different composers, all male. A wide range of electroacoustic approaches was represented in each case, including use of digital and analog sound processors, several pieces using the programming language MAX with MIDI instruments, and pieces for tape and instrument. There were no environmental references in the liner notes, and no composer used recognizable environmental sounds.

The Swedish anthology was produced in 1993. Here, there are fourteen composers represented, one of whom is female (Akemi Ishijima). Her piece *Urskogen*, which uses recorded sounds of musical instruments, includes an environmental reference in the liner notes. Another piece on this anthology, *La Disparition de l'Azur*, by Erik Mikael Karlsson, uses somewhat recognizable environmental sound sources. The contexts for these sources remain fairly generalized: he uses the terms "a modern city" and "the countryside," so they are not references to specific geographical places. The liner notes state that this piece won the first prize in the Electroacoustic Programme Music category at the 21st International electroacoustic music competition at Bourges. The other pieces on this anthology include algorithmic, acousmatic, and mixed voice and instruments with processing. There are no other environmental references or use of environmental sounds.

The Canadian collection was published in 1990. This four-CD set includes compositions by thirty composers. The extensive liner notes include a one-paragraph reference to the work of the World Soundscape Project. Several pieces include environmental references in the liner notes: Francis Dhomont's *Thème de la Fuite*, Bengt Hambraeus's *Intrada*:

¹⁸¹The Canadian collection is available at York University: all three at University of Toronto.

'Calls'; Yves Daoust's *Adagio*; Marcelle Deschênes's *Big Bang II*, Diana McIntosh's *...and 8:30 in Newfoundland*; Ann Southam's *Fluke Sound*; Jean-François Denis and Eric Brown's *Fréquents Passages*. One piece, Hugh Le Caine's *Dripsody*, uses a recognizable environmental sound—a drop of water, taken out of context and re-recorded at different speeds to produce a pentatonic scale. There are several soundscape pieces. Gilles Gobeil's *Rivage* uses "concrete sounds and noises untouched from our urban environment (traffic, industry, trade) surrounded by electronic sounds" (liner notes, 1990: 38). This piece has won several international prizes. Kevin Austin's *Tears of Early Morning Rain and Cat Fade Away* is a documentary type recording.

The works in the Canadian anthology which refer most specifically to particular places and situations are Claude Schryer's *Chasse* and Hildegard Westerkamp's *Cricket Voice*. Schryer states: "In October 1988, I went hunting with my father Maurice and my oldest brother Richard in Saskatoon, Saskatchewan. I have hunted with them for the last 20 years. This year my gun was a microphone. My target was hunting itself" (liner notes, 41). He dedicates his piece to Luc Ferrari, and it premiered at a concert honouring Ferrari in Paris 1989. The work juxtaposes (French) spoken definitions of hunting with various field recordings of this hunting environment. Westerkamp states: "Cricket Voice is a musical exploration of a cricket, whose song I recorded in the stillness of a Mexican desert region called the 'zone of silence'" (liner notes, 1990: 32). This is one of the more abstract of Westerkamp's works, utilizing the recording of the cricket both in its original form, and at a number of different speeds to create rhythmic textures. It also includes percussive sounds made by playing desert plants. In both cases, the composers note the place of recording and its context. The sounds in each composition are often recognizable, and when they are transformed, they retain a level of recognizability.¹⁸²

Studio Collections

Several collections are associated with particular studios. *Cologne-WDR Early Electronic Music* (CD) was published in 1990, and includes music by ten male composers who worked at the WDR in Cologne during the 1950s. Oddly, there are none by Stockhausen. The pieces use electronic sources and the serial method of composition. The liner notes explain the position of the studio at that time, in opposition to that of *musique concrète*.

The marriage between electroacoustic music and the then rigid principles of serial composition manoeuvred the Cologne studio into opposition to the electroacoustic studio of the French radio RTF, which Pierre Schaeffer founded immediately after the liberation of nazi-occupation. In Schaeffer's "musique concrète," which was based on the traditions of 'structuralist' literature, recorded acoustic material from the outer world played a central role and evoked lots of 'associations' with reality within the listener's mind. In contrast to this, Cologne intended to continue the tradition of 'absolute' music which had dominated most of the European concert music

¹⁸²For instance, a sound slowed down, as in Westerkamp's *Cricket Voice*, retains the same rhythmic patterns as the original at a slower tempo, and is related in timbre, while the pitch of the sound changes. This kind of sonic manipulation is not as radical as changing the actual envelope or shape of the sound, as is often practised in *musique concrète*.

since the late 18th century: a music free of non-musical associations. (liner notes 1990: unpaginated)

Several early LPs published by Editions de la boîte à musique represent early work in *musique concrète* at the Paris studio. I reviewed *Musique Concrète*, published in 1960, and *Musique Experimentale II*, published in 1964. The first includes works by six male composers; the second, works by seven. All include environmental sound sources, for the most part treated acoustically, to "liberate" the sound from its initial source, so that the sources are unrecognizable. The exceptions are two pieces on the *Musique Experimentale II* LP. François-Bernard Mâche's *Terre de Feu* uses recognizable environmental sounds. Philippe Carson's *Turmac* is a soundscape piece, using recordings of factory machines in Holland which are layered in a montage that retains a strong sense of the factory environment.

The Folkways LP entitled simply *Electronic Music* (1967) contains works by nine composers who have worked at the University of Toronto studios. *Dripsody*, by Hugh Le Caine, is included even though it was composed in Ottawa, perhaps because the instruments that he invented were crucial to the establishment of this studio. Most of the works use electronic sound sources and no environmental references. *Noesis*, by Robert Aitken, includes some recognizable environmental sounds. *Pinball*, by Jean Ivey, the lone woman composer on this LP, is entirely derived from the sounds of pinball machines, which are quite recognizable throughout the piece.

Producer Collections

In this category I will discuss collections that are not associated with any particular studio, but were collected by record producers or production houses to represent a range of practice in electroacoustic (electronic) music. The first two that I will discuss are Canadian productions. The others were produced in the US.

Electroclips is a CD produced in 1990 by empreintes DIGITALEs in Montréal. It includes works by twenty five composers from Québec (twelve),¹⁸³ the rest of Canada (eight), the United States (four) and Mexico (one). Two of the composers are women, both from Canada. Each piece is a three-minute miniature, which is intended to represent the composer's style. Three pieces create virtual narratives using (mostly) mediated sounds: Roxanne Turcotte's *Miniserie* is a playful chase through the macabre world of Hitchcock and Spielberg movies; Christian Calon's *Temps Incertains* works with radio broadcasts of a demonstration; Dan Lander's *I'm Looking At My Hand* creates a narrative from recognizable recorded sounds based on experiences with his hands.

Several soundscape pieces are included on this CD. *Oiseaux de Bullion*, by Claude Schryer, compares two environments: the claustrophobic space of finches singing in a cage in downtown Montréal, and a much more expansive recording of Schryer's encounter with the sounds of a train while hiking in the Bow Valley, near Banff.

¹⁸³The producers made this distinction in the liner notes.

Landlocked, by Laurie Radford, uses Xenakis's graphic stochastic UPIC system to integrate recognizable environmental sounds with less recognizable sources. It is placed "in the center of a vast continent" (1990: liner notes). Christian Calon and Claude Schryer's *Prochaine Station* is a sound journey through Montréal's subway system. Hildegard Westerkamp's *Breathing Room* situates the piece within and around her own body, as she breathes in all kinds of environmental sounds: "Each breath ... creates a specific place in time. Meanwhile, the heart beats on, propelling time from one breath to the next" (1990: liner notes).

Another collection which is mostly Canadian, but which cannot really be considered a purely national collection because of its inclusion of some international composers, is the *Discontact! II* CD, produced in 1995 by the Canadian Electroacoustic Community (CEC) to showcase members' works. Of the fifty one pieces in this collection (all under three minutes in length), five are by composers outside Canada who are members of the CEC (US, Japan, Germany and Spain). In this collection, I noted several pieces which used environmental sounds in particular sections, and seemed to move between recognizable soundscape and unrecognizable acousmatic styles, perhaps influenced both by the francophone connection with the GRM acousmatic school, and by the World Soundscape Project. Several soundscape pieces are also included. Some use recognizable environmental sounds and phrases without referring to a specific place, such as Claude Schryer's *3 Radioludes*; Chris Meloche's *Extensions V* (for Ionospheric Sounds, Trombone and Electronics); Fred Semeniuk's *Spraying*; and Thomas Gerwin's *Epilogon*. Others refer to the place of recording, either in a general way: "a soundwalk through the classical concert hall and the sports temple" (liner notes, 1995: 15), as in Egils Bebris's *Hockey Night in Opera*; "sounds recorded by the composer in zoos, parks, etc." (liner notes, 1995: 14), in Pascale Trudel's *Le Poisson Qui Cache l'Oiseau*; or specifically: "the sounds of Toronto video arcades in the fall of '94," (liner notes, 1995: 19), as in my *Arcade '94*; and "The recordings used to make this piece were collected on foot in Manhattan, near the clock tower at Herald Square" (liner notes, 1995: 21) in E. C. Woodley's *Abide With Me (New York No. 1)*.

Neuma has recently released several CDs with the collective title *Electroacoustic Music*. I listened to the first (subtitle *Classics*, 1990) and *Electroacoustic Music II*, 1991. The Classics CD includes Edgard Varèse's *Poème Électronique* (1957-8). This piece, composed using the proportions of the Golden Section to create an interplay of shifting sound masses and planes, is related to soundscape composition in one significant way: it was created for a specific place, the Philips Pavilion, and was composed in collaboration with the architect, Le Corbusier (who also worked with Iannis Xenakis). The sound materials, however, were not recorded at the location. The CD also includes two pieces by Milton Babbitt: *Phonemena* and *Philomel*, both for voice and tape, as well as Roger Reynold's *Transfigured Wind IV* for flute and tape, and Iannis Xenakis's *Mycenae-Alpha*. Once again, as I noted earlier with reference to Xenakis's writings, he is inspired by the movements of environmental forces: "Xenakis's music depends on giving aural life to shapes and patterns of movement, whether invisible [sic], as in a cloud, or invisible, as in the movement of molecules in a gas" (liner notes, 1990). In this piece, he uses the UPIC graphic drawing board to convert images (which look like close-ups of cellular

structures) into sound. He is inspired by the rhythms and forms of the environment, and uses mathematical and graphical means to represent that inspiration. While this approach is different from working with environmental *sounds* in context, his attention to the environment is similar.

The second disk, *Electroacoustic Music II*, contains no reference to how the collection came about. It includes work by five composers. One piece, *Phoenix* (sung by Electric Phoenix), by Gerald Shapiro, refers to inspiration through the composer's reading of *Sound and Sentiment*, by Steven Feld. There is no use of environmental sounds or direct references to the sound environment.

Turnabout produced a CD in 1966 entitled simply *Electronic Music*. It includes pieces by only three composers: Ilhan Mimaroglu, John Cage and Luciano Berio. No explanation is given for the choices. In the introduction to Cage's *Fontana Mix*, he says: "When we use our perception of logic we minimize the actual nature of the thing that we are experiencing" (liner notes 1966), a reminder of Cage's effort to use indeterminacy to allow sounds to be heard for themselves. *Fontana Mix* uses a variety of recorded sounds within an indeterminate structure.

New Electronic Music from Leaders of the Avant-Garde was produced by Columbia Records in 1967. Once again, it includes work by only three composers: Cage, *Variations II*; Babbitt, *Ensembles for Synthesizer*; and Henri Pousseur's *Trois Visages de Liège*. The latter piece uses words derived from poetry including the street names of Liège, Belgium, but no recorded environmental sounds are included. Babbitt's is an electronic piece using the serial method. Cage's *Variations II* is a composition with a performance organized using chance procedures, for any number of players, any sound-producing means. This particular realization is by David Tudor, amplifying a piano with a contact microphone and phonograph cartridge, as well as using various materials such as plastics and toothpicks to stroke, scrape and pluck the strings.

New Music for Electronic and Recorded Media was produced by Charles Amirkhonian for Arch Records in 1977. It includes works by seven composers, all women. Laurie Anderson's *New York Social Life* and *Time to Go (for Diego)* are clearly inspired by social situations, in the first piece, artists' conversations, and in the second, the words of a guard asking people to leave the Museum of Modern Art. The words from these situations are then taken out of context and given musical settings. Annea Lockwood's *World Rhythms* mixes ten channels of rhythmic environmental sounds with live performance of a gong-player "reflecting some changing, inner physiological rhythm in a network of feedback between player and environmental sound, and between player and gong" (liner notes 1977). Unlike many of her other works, this piece is not linked to a specific place, but still emphasizes the relationship between performer and environmental sounds. The other pieces on this disk use recorded instrumental and vocal sounds as well as electronic sources in structures that range from improvisation (Pauline Oliveros) to computer generation (Laurie Spiegel). There are no other references to environmental sounds or contexts in the descriptions of the pieces.

In all of the disks that I have discussed so far, there have been decisions made about what to include that are either affected by nationality, membership in an organization such as the Canadian Electroacoustic Community, or the taste of a particular producer. The intention of international competitions is to find the best in a field based on the value of the work, using peer juries. As a result, CDs from international competitions may be considered of greater canonical importance than the former types.

International Competitions

The Prix International Noroit-Léonce Petitot is a competition of acousmatic music. The prize was founded by François Bayle, Michel Chion, and Jacques Lejeune, all of whom worked at the Paris GRM studio. I reviewed the disk containing works by the 1991 winners of the prize. All of the works could be considered acousmatic, as they use recorded sound sources which have been removed from their original context and transformed so that they are unrecognizable. First prize went to Robert Normandeau, for *Éclats de Voix*, a piece which includes some short recognizable sections but is mostly abstracted. The next three pieces are typically acousmatic. The last piece, by Philippe Le Goff, receives a Mention. *Meta Incognita* includes many recognizable sections and a reference to a specific sound environment in the liner notes. Le Goff says: "it is the result of a long journey, which took me to the Arctic lands to listen to nature, language and music" (liner notes 1991). The piece includes the throat singing of two Inuit women, and concentrates on their moment of laughter at the end of the piece, integrated with the sounds of voice, wind and drum.

It makes sense that in an acousmatic competition, most of the selected works would follow the aesthetics of acousmatic music rather than a wider range of approaches to electroacoustic music. The Bourges competition, on the other hand, offers prizes in a number of categories which are intended to encompass the whole range of electroacoustic music. There are four sections: Electroacoustic Music, Music for performers and tape (mixed), Program Music, and Live Electroacoustic Music. Bourges also offers the Magisterium, a prize for more established composers, in which there are no categories. I reviewed eight disks, which are associated with the prizes from 1988 to 1991. Some disks also included selections from much earlier competitions (1973-77). Several pieces used environmental sounds, but rarely in context. The 1991 Magisterium went to Bernard Parmegiani for *Exercisme 3* (1986); and Barry Truax for *Riverrun* (1986). *Exercisme 3* begins with a short soundscape section including the cry of an unnamed bird. The piece then transforms to a composition of digital sounds modified through a pitch-to-MIDI converter and computer system. *Riverrun* uses the metaphor of a British Columbia river to structure the granular synthesis of electronic sounds. Although this piece uses electronic sounds as a source, its structure is based on the perception of a sound environment.

On the 1990 competition disk, there is one piece by Gabriel Valverde, called *Cumulos*, which uses the inspiration of the movement of galactic cumulus to shape the movements of electronic sounds. Although this piece refers to an environment, it is not to the sounds of that environment but rather the movements within it.

The 1989 Program Music prizes included two examples that work with environmental sounds. Christian Calon's *Minuit* uses some environmental sounds, which are never identified with a particular place. Alistair MacDonald and Nicholas Virgo's *Busk*

was composed almost entirely from conventional music and environmental sounds recorded on the streets of Birmingham. These 'sources' frequently appear as 'windows', but are not necessarily the main focal points of the work. Rather, the drama lies in the way that the music arrives at the panoramas offered by the windows and is then drawn away to alternative vistas. Hence, *Busk* is essentially an exploration of the continuum between two types of material: raw sources and their electronically manipulated derivatives. (liner notes, 1989: unpaginated)

Hence, this composition is not intended to be about the streets of Birmingham, but about the process of manipulation of the sources. While some of the prize-winners in the Bourges competition disks that I reviewed included environmental sounds, the context of the sounds was not generally the focus of the work. Truax's *Riverrun* is closest to the idea of soundscape in its attention to the sounds of a river environment. It is also an excellent example of the use of granular synthesis as a compositional process, and uses electronic sounds as a source. Soundscape pieces using recorded environmental sounds did not appear in this sample.

Reviewing the set of recordings as a whole, it is clear that soundscape works are a small minority in these international collections, in which environmental sounds are more often treated acousmatically, when they appear at all. It is remarkable to note the higher number of soundscape pieces in the Canadian collections than in international collections. Factors which may influence this greater activity in soundscape composition include an interest in portraying relationships with a natural environment in the Canadian arts, as noted in chapter two, as well as the importance of the World Soundscape Project, and the continuing role of the Vancouver activities of the World Forum of Acoustic Ecology in the development of electroacoustic music in Canada.

Annotated Discography:

Anthology of Australian Music: Electroacoustic Music. Canberra, Australia:

Australian Centre for the Arts and Technology, 1996.

Computer [MAX, algorithmic], mixed voice and instrument, synthesized. 6 pieces. no environmental references.

Anthology of Australian Music: Electroacoustic Music. Canberra, Australia:

Australian Centre for the Arts and Technology, 1994.

Pressing, Gerrard, Cary, Vennonan, Burt, Worrall. No environmental references. Voice with MIDI keyboard, MAX, mixed instrumental and electronic, synclavier, digital and analog sound processors, processed instrumental sounds.

Cologne-WDR Early Electronic Music. CD 9106. BV Haast, 1990.

Herbert Eimert and Robert Beyer, *Klang im unbegrenzten*; Eimert, *Raum*; Eimert *Klangstudie I*; Eimert and Beyer, *Klangstudie II*; Eimert, *Glockenspiel*; Goeyvaerts, *Komposition #5 and #7*; Gredinger, *Formanten I and II*; Koenig, *Klangfiguren*; Pousseur, *Seismogramme I and II*; Hambraeus, *Doppelrohr II*; Evangelisti, *Incontri di fasce sonore*; Ligeti, *Glissandi and Articulation*; Kiebe, *Interferenzen*; Brun, *Anepigraphe*. Serial technique, electronic sources.

Cultures Electroniques. Laureats, Concours International de Musique

Electroacoustique, Bourges, 1988-1991. 4 sections. Electroacoustic Music, Performers and Tape, Program Music, Live Electroacoustic Music. Magisterium--no category stated for each piece.

1991 Magisterium.

Bernard Parmegiani, France. *Exercisme 3* (1986). Barry Truax, *Riverrun* (1986).

2 selections from 1975-77 competitions.

Change the World, It Needs Changing. (1973) Wilhelm Zobl (Austria). Exploration of vocal texts using electronic, vocal, various concrete sources. Created in experimental studios of Radio Poland. "The answers must be concrete, for truth is concrete and art must be based upon truth." (Hanns Eisler). James Dashow (USA-Italy) *Whispers Out of Time* (1975-76). Electronic music, electronic sources. Explores use of AM, FM and RM spectra, and various degrees of depth and spatiality.

1989 Magisterium and Electroacoustic Prizes [2 disks].

Leo Kupper [Belgium]. Francisco Kropfl [Argentina]. *Orillas*--vocal sounds, struggling to come through. Richard Karpen [USA]. electroacoustic music mixed. *Il Nome* [voice and tape]. uses sound of breaking glass, not in an environmental context. Gilles Gobeil [Canada] *Voix Blanche*--ondes martenot and tape. Julio D'Esriwan. [Venezuela] *Salto Mortal* electronic.

disk 2. Christian Calon. *Minuit*. Takayuki Rai [Japan]. Piano and live electronics. Alistair MacDonald and Nicholas Virgo {UK}. [pro] *Arrivals* [Andrew Lewis, UK]. Unrecognizable sources.

1990 Electroacoustic Prizes.

Mura-Iki [explosive breath]. Kjell Johnson, Norway. Flute and computer manipulations of flute sounds. Paul Dolden *Below the Walls of Jericho*. Instrumental sounds

multi-tracked [400 tracks]. Robert Rowe [US] *Flood Gate*--violin, piano, interactive computer system. Frances White, *Valdrada*, USA. Computer treatment of vocal sounds. Carmelo Saitta, Italy-Argentina, *La Maga O El Angel de la Noche*. Instrumental sounds digitized and processed. Frances White, *Still Life With Piano*, piano and tape. Gabriel Valverde, Argentina. *Cumulos*--electronic sounds which move and form like galactic cumulus.

Coda to 1990 disks. 1973-75 winners.

Eugeniusz Rudnik, Poland. *Mobile* [1972, 73 winner]. Speech fragments from news broadcasts "the initial material acquired such an abstract form that it could be used as a substance for a musical composition" combined with cello and singing. Zoltan Pongracz--Hungary. *Mariphonia* (1972, 74 winner) Sung vowels, declamations, weeping, laughter, radically transformed. Based on the dimensions of the body of his wife, Maria. Jose Vicente Asuar--Chile. *Guararia Repons* [1968, winner 75]. Instrumental sounds processed and electronic sounds. "Electronic sounds can lead, paradoxically, towards primitive forms, towards sound forces that are found in nature, in a virgin and primitive world...All these sounds can be simulated and mastered by the electronic technology with musical end in view." Eduardo Kusnir [Argentina-Venezuela]. *La Panaderia* [1970, 75 winner] electronic sounds processed using graphic-analogic converter similar to that used by Xenakis.

Electroacoustic Prizes 1988.

This year marked the first time that the competition was divided into three sections, and the Magisterium was introduced. Paul Dolden, *In the Natural Doorway We Crouch*. instrumental sounds, multi-tracked. Robert Normandeau *Rumeurs* (Place Ransbeck). Acousmatic. Horacio Vaggione, Argentina. *Tar*. Bass clarinet and tape. James Aikman, and Armando Tranquilino, USA. *Tragoidia/Komoidia*. Instrumental sounds, electronically treated. Vivian Adelberg Rudow, USA. *With Love* (1986) for cello and tape. Tape uses vocal sounds and electronically produced sounds.

Disk 2. Ake Parmerud, Sweden, *Repulse*. Electronic and instrumental sounds, processed. Poulard Gabriel, France, *The Memory of the Stones*. Analog and digital electronic sources. Ake Parmerud, Sweden, *Yan*. Tape and percussion. Tape part is electronic sources. Ricardo Mandolini, Argentina, *Microrreflexiones*. Source is soprano voice, sometimes radically processed. Lothar Voigtlander, DDR, *Maybug Fly*. Uses extracts of known songs, at times radically processed.

Discontact! II. 1995. Montreal: Canadian Electroacoustic Community CD.

Ned Bouhalassa, *Move* ; Ian Chuprun *Duet*; Francis Dhomont *L'électro (inédit)*; Daniel Feist *Diptych*; Michel Frigon *Itinéraire au Crépuscule*; Gilles Gobeil *Le vertige Inconnu*; Monique Jean *Embrace*; Kathy Kennedy *Music Box II*; Frank Koustrup *Woodsotck to Detroit*; Daniel Leduc *Réponse impressioniste*; Robert Normandeau *Spleen*; Er Polen *.TRANse.SEPTem*. Laurie Radford *enclave*; Jean Routhier Christof Migone and Michel Coté *Sous les décombres...*; Frédéric Roverselli *L'Eveil de la cité*; Claude Schryer *3 Radiolude*; Pascale Trudel *Le Poisson Qui Cache l'Oiseau*; John Winiarz *Jack in a*

Music Box; Egils Bebris *Hockey Night in Opera*; Gustave Ciamaga *Possible Spaces No. 1*; Janet Cross *Pleasant Tasks*; Rob XCruikshank *Starting from the House, Working Outwards*; Bruno Degazio *Jolly*; Robert Del Buono *Harmonica*; Markos Lekkas *Chronographica Delta*; Andra McCartney *Arcade '94*; Sarah Peebles *Nocturnal Premonitions*; Randall Smith *Fletting Wheels of Changes*; E.C. Woodley *Abide With Me*; Wes Wraggett *Chants of the Apocalypse*; Mara Zibens *Siquppalavuk/It Sounds Like Breaking*; Bentley Jarvis *What Are You Talking About?* Chris Meloche *Extensions V*; Sergio Villarreal *On the Other Shore*; Gregory Jay Lowe *Song of the Turtle*; Diana McIntosh *Processions*; Gordon Fitzell *Zipper Music*; Garth Hobden *Inukshut*; Shawn Pinchbeck *The Children Are the Future*; Steven Heimbecker *I Beat John Sobol at Pool Last Night*; Daniel Scheidt *Big Piano: Storm*; Darren Dopeland *Darkness Colours*; Martin Gotfrit *Guitar with Hut20*; Fred Semeniuk *Spraying*; Barry Truax *Bamboo, Silk and Stone*; Barbara Golden *Flaming Toast*; Yasuhiro Ohtani *Brain Wash*; Christian Calon *en vol*; Thomas Gerwin *Epilogan*; Francisco López *El mundo después de la invasion de los zorápteros*; Daniel Zimbaldo *Ritual of the Rose*. 4 environmental references in program notes [but not environmental sounds used], 10 soundscape.

Electroacoustic Music. Montréal: Radio Canada International, 1990.

A four CD set, this collection was made by Radio Canada to document major works of electroacoustic music in Canada. Hugh Le Caine, [environmental sounds]*Dripsody*; Maurice Blackburn, *Blinkity Blank*; Gustav Ciamaga, *pour M*; Francis Dhomont, [er]*Thème de la fuite*; Bengt Hambraeus, [er]*Intrada: "Calls"*; Alcides Lanza, ...*There is a way to sing it...*; Kevin Austin, [soundscape]*Tears of Early Morning Rain and Cat Fade Away*; Sergio Barroso, *La Fiesta*; John Celona, *Cordes de nuit*; Yves Daoust, [er]*Adagio*; Marcelle Deschênes, [er]*Big Bang II*; David Keane, *Lumina*; Diana McIntosh, [er]...*and 8:30 in Newfoundland*; David Jaeger, *Fancye*; Larry Lake, *Israfil*; James Montgomery, *Saigon*; Bruce Pennycook, *The Desert Speaks: Praescio-III*; Jean Piché, *Taxis to Burning Sky*; Ann Southam, [er]*Fluke Sound*; Barry Truax, *Arras*; Hildegard Westerkamp, [soundscape]*Cricket Voice*; Serge Arcuri, *Murmure*; Christian Calon, *La disparition*; Bruno Degazio, *HeatNoise*; Jean-François Denis/Eric Brown, [er]*Fréquents passages*; Paul Dolden, *Below the Walls of Jericho*; Gilles Gobeil, [soundscape??]*Rivage*; Robert Normandeau, *Matrechka*; Daniel Scheidt, *Obeying the Laws of Physics*; Claude Schryer, [soundscape]*Chasse*. 1 environmental sounds, 7 environmental references, 4 soundscape.

Electroacoustic Music. Stockholm, Sweden: Swedish Information Center, 1993.

Akos Rózmán - *Klagovisor* [inst]; Akemi Ishijima (Fem) - *Urskogen* [inst ER]; Jens Hedman and Erik Mikael Karlsson - *Anchorings/Arrows* - inst; Örjan Sandred - *Det tredje perspektivet* - computer; William Brunson - *Inside Pandora's Box* - voice and processing; Tamas Ungvary - *Gipsy Children's Giant Dance with Ili Fourier* - computer; Åke Parmerud - *Krén* - electronic; Rune Lindblad - *Worship*. Acousmatic; Jonas Broberg - *Buccharelli's Lamento* - synthesized; Johan Mowinckel --*Stanna!* acousmatic; Erik Mikael Karlsson *La Disparition de l'Azur*. Thomas Bjelekborn - *Within Without*. Voice and instrumental processed; Sten Hanson *Suite Brasiliera* Inst processed.

Electro Acoustic Music: Classics. Neuma 450-74 CD, 1990.

Includes **Edgard Varèse**: *Poème Electronique* (1957-8). This, his last completed work, uses similar sound sources to earlier pieces: bells and sirens, human voices, mechanical and percussive timbres. Milton Babbitt's *Phonemena* (1975) is scored for soprano and synthesized tape. Roger Reynolds's *Transfigured Wind IV*. Electronic. Milton Babbitt's *Philomel*, for soprano, recorded soprano and electronically synthesized sound. Iannis Xenakis's *Mycenae-Alpha* was composed in 1978 on the UPIC system at the Centre d'Etudes de Mathematique et Automatique Musicales in Paris. "Xenakis's music depends on giving aural life to shapes and patterns of movement, whether invisible, [sic] as in a cloud, or invisible, as in the movement of molecules in a gas. Converting these images to sound requires a facility with complex mathematics. In 1976, Xenakis began a way to side-step those complex calculations and developed a drawing board which is attached to a computer which converts images into sound."

Electroacoustic Music II. Acton, Mass: Neuma 450-75 CD, 1991.

Gerald Shapiro. *Phoenix*, sung by Electric Phoenix. Jonathan Berger, *Island of Tears*. Synthesized sounds, ref. to immigration to US. James Dashow-*Disclosures of cello and computer*. Instrumental. John Duesenberry, *Agitato*. MIDI. Peter Child, *Ensemblance*. instrumental. No reference to how collection came about.

Electroclips. 1990. Montreal: empreintes DIGITALes, Montreal. CD.

Electroacoustic works by 25 composers from Canada, the United States, and Mexico. Michel Smith, *style de bougalou*, instrumental and voice; Craig Harris, *Somewhere Between*, inst; Jean-Francois Denis, *Point-Virgule*, acousmatic; John Oswald, *Bell Speeds*, acousmatic; Yves Daoust, *mi bémol*, acousmatic with ER; Claude Schryer, *Les Oiseaux de Bullion*, **soundscape**; Martin Gotfrit, *The Machine's Four Humours*, electronic ER [or soundscape of the machine]; John Oliver, *Marimba Dismembered*, instrumental; Zack Settel, *Skweeit-Chupp*, fm synthesis, voice and percussion; Stéphane Roy, *Résonances d'Arabesques*, acousmatic; Daniel Scheidt, *What If*, computer; Bruno Degazio, *Humoresque 901534*, algorithmic; Richard Truhlar, *Simulant*, electronic; Gilles Gobeil, *Associations Libres*, inst; Robert Normandeau, *Bédé*, acousmatic vocal; Laurie Radford, *Landlocked*, **soundscape**; Christian Calon and Claude Schryer, *Prochaine Station*, **soundscape**; Hildegard Westerkamp, *Breathing Room*, **soundscape**; Amnon Wolman, *Man-bridge*, ER vocal; Francis Dhomont, *Qui est la?* acousmatic; Roxanne Turcotte, *Miniserie*, not quite acousmatic--narrative, uses some environmental sounds, ER reflection on movie sounds; Christian Calon, *Temps Incertains*, Dan Lander, *I'm looking at my hand*, not exactly soundscape either, more narrative ER; Javier Alvarez, *Mambo a la Braque*, instrumental; Charles Amirkhanian, *Bajanoom*, instrumental.

5 soundscape works, all Canadian. 4 environmental references [3 canadian]

Electronic Music. Turnabout TV 34036S LP, 1966.

Ilhan Mimaroglu, *Agony*. electronic [Columbia-Princeton]; John Cage, *Fontana Mix*;
Luciano Berio, *Visage*. vocal gestures and inflections - Cathy Berberian.

Electronic Music. Folkways. University of Toronto, 1967.

Dripsody. Hugh Le Caine. acousmatic; *Dance R4/3* Myron Schaeffer electronic; *Summer Idyll* Arnold Walter, Harvey Olnick, Myron Schaeffer. electronic; *Noesis* Robert Aitken. electronic and some concrete sections; *Fireworks* Val Stephen electronic; *The Orgasmic Opus* Val Stephen. electronic; *Collage* J.D. Robb electronic; *Pinball*. Jean Ivey *Inferno* Victor Grauer electronic.

Lisboa! a soundscape portrait. WDR CD ZP 9401, 1994.

Prologue, Arrival, Trams/Soundmarks and Signals, Cemitério dos Prazeres, Fado/Voices, Mercado da Ribeira Nova, Hiding from noise, Bairro Alto and Bica Soundwalks, Insider River Tejo, Benfica plays the Alfama is listening, Marchas Populares, Epilogue. All by Michael Rusenberg and Hans Ulrich Werner.

Madrid A soundscape collective. WDR CD ZP 9501.

Pedro Elías Mamou *Iguales para hoy*; Michael Rusenberg *El ritmo del ciego*; Hans Ulrich Werner *Metason*; Francisco Lopez *Un recorrido bajo el engranaje de la máquina de viento y arean*; Mamou/Rusenberg/Werner/Lopez *Cadavre exquis*; José Luis Carles/Isabel Lopez Barrio *Latidos, Escenas sonoras de Madrid.*

Musique Concrète. Editions de la boîte à musique, 1960. LP.

Diamorphoses, Iannis Xenakis. clock sounds transformed acoustically. *Etude Aux Sons Tendus*. Luc Ferrari acousmatic; *Ambiance I* Michel Philippot Acousmatic; *Aspect Sentimental* Henri Sauguet, acousmatic; *Etude Aux Sons* Pierre Schaeffer, acousmatic; *Etude Aux Accidents* Luc Ferrari instrumental--rhythmic agitations of a note of prepared piano; *Etude Aux Allures*. Piere Schaeffer acousmatic.

Musique Experimentale II. Editions de la boîte à musique, 1960.?? actually after 1963 LP. GRM

Luc Ferrari *Tautologos I* Liner notes focus on syntax. Acousmatic but sounds electronic; Ivo Malec *Reflets*. acousmatic; Earle Brown *Times Five*. Instrumental; Francois Bayle. *Vapeur*. Instrumental; Francois-Bernard Mache. *Terre de Feu*. Philippe Carson-Turmac.

New Electronic Music from Leaders of the Avant-Garde. Columbia Records 7051, 1967.

Includes John Cage: *Variations II* (1961), performed by David Tudor. This is a composition indeterminate of its performance, for any number of players, any sound-producing means. David Tudor's realization is for amplified piano, using a contact microphone and phono cartridge, as well as various materials such as plastics and toothpicks to stroke, scrape and pluck the strings. Milton Babbitt's *Ensembles for Synthesizer* "exemplifies the distinguishing characteristics of Babbitt's composition, notably his adherence to the twelve pitch classes of the tempered scale, and the minimal use of sound material outside this domain. The

work demonstrates the kind of high-speed virtuosity of which the synthesizer is capable" (liner note, David Behrman). Henri Pousseur's *Trois Visages de Liège* (1961) uses electronic sounds with voice and one pizzicato chord. The words are derived from poetry including the street names of Liège, Belgium.

New Music for Electronic and Recorded Media. Arch Records 1750, 1977. Includes Johanna M. Beyer's *Music of the Spheres* (1938), scored for lion's roar, triangle, strings and electrical instruments, realized by the Electric Weasel Ensemble. Annea Lockwood's *World Rhythms* (1975) [soundscape] Pauline Oliveros's *Bye Bye Butterfly* (1965) is a live electronic piece. The compositional mix includes excerpts from Puccini's *Madame Butterfly*. Laurie Spiegel's *Appalachian Grove* (1974) is one of her first pieces of computer-generated tape music, composed after her study of Max Mathews's GROOVE programming system. Ruth Anderson's *Points* (1973-4) is built purely from the sine tone, which Anderson describes as "a single frequency focal point of high energy." Laurie Anderson's *New York Social Life* and *Time to Go (for Diego)*, both from 1977, are early examples of Anderson's anecdotal critiques of American culture. **1 soundscape 1 environmental reference**

Prix International Noroît-Léonce Petitot 1991 de composition musicale acousmatique. Arras: Noroît, 1992.

1st prize Robert Normandeau, *Eclats de voix*--acousmatic, some short recognizable sections. 2nd prize Ake Parmerud, *Les Objets Obscurs*. acousmatic--single sound sources. Todor Todoroff, *Obsession*--mention. Acousmatic--fragmented texts, processed water sounds. Serge Morand, *Naïves*--acousmatic. Philippe Le Goff, *Meta Incognita*. "Anirniq is spirit."

Soundscape Brasilia Zen Studio Brasilia, 1994.

Juliane Berber and Christian M. Bassay Blum *Ressonância*; Celso Araujo, Marcelo Araujo and Joao Claudio Silveira *D Ambulante*; Claudio Vinicius and Bene Fonteles *Dreamwalk*; Fernando Corbal *Exomapascape*; Damian Keller *Brasil[espaco]ia*; Ernesto Donas Goldstein, Juan carlos Arango and Luis Francisco Latorraca *BrassIlha*; Luis Roberto Pinheiro *Planos*; Hans Peter Kuhn *HP's Estacionamento*.

The Vancouver Soundscape 1973 1996. Burnaby BC: Cambridge Street Records CSR-2CD 9701, 1997.

Ocean Sounds, Squamish Narrative, Entrance to the Harbour, Harbour Ambience, The Music of Horns and Whistles, Vancouver Soundmarks, Homo Ludens — Vancouverites at Play; The Music of Various City Quarters; New Year's Eve in Vancouver Harbour; On Acoustic Design. All by World Soundscape Project.

disk 2: Darren Copeland *Recharting the Sense*; Sabine Breitmaster *The Hidden Tune*; Hans Ulrich Werner *Vanscape Motion*; Barry Turax *Pacific Fanfare*; Claude Schryer *Vancouver Soundscape Revisited*.

World Soundscape Project collection: *The Vancouver Soundscape*, *Soundscape of Canada* (10 one-hour CBC programs), *Radio Program About Radio Programs*, Howard Broomfield; *Maritime Sound Diary*, Barry Truax; *Bells of Perce*, Bruce Davis; *Soundscape Study*, Barry Truax; *Play and Work*, Bruce Davis. 1974.

Appendix E

Listener responses: summary information

1. Ages of respondents

Less than ten years	1
10 - 19	61
20-29	102
30-39	23
40-49	13
50-59	6
60 years and older	1

2. Ethnicities of respondents

Respondents answered in their own words. I grouped responses according to continent (so, Chinese would become Asian, Polish would become European). In a few cases, respondents identified themselves according to religion, or in another way, in answer to this question. A high number did not answer at all.

American	4
American-Canadian	2
American-European	3
Asian	21
Black	2
Black-Hispanic	1
Canadian	36
Canadian, Asian background	9
Canadian, European background.	41
European	28
Guyanese-Iranian	1
Jamaican	2
Jewish	1
Jewish-Canadian	2
White or Caucasian	29
No answer	62
Born here	2
Anglican	3
Roman Catholic	2
Smoker	1

3. Genders of respondents

Both	1
Men (male)	92
Women (female)	132

No answer

26

4. Previous experience with electroacoustic and soundscape music

a) Have you ever taken a course or workshop in electroacoustic studio techniques? Y / N

Yes	72
No	139

No answer	41
-----------	----

b) Have you taken a course or workshop in soundscape composition? Y / N

Yes	24
No	171

No answer	56
-----------	----

c) Do you currently compose electroacoustic/soundscape music? Y / N

Yes	64
No	137
Sometimes [kind of]	3
No answer	48

d) Are you a member of any professional composer's association? Y / N

Yes	20
No	190
No answer	41

5. Locations of listening sessions

Chicago concert [miXing festival, December 1998]	8
Individual responses [1995-1998]	36
Kingston concert [Modern Fuel Gallery, March 1999]	1
Listserv responses, CEC and WFAE [1996-1998]	12
North Toronto C. I. Grade 10 vocal class [April 1998]:	
boys' class	14
girls' class	43
Queen's University, Kingston [March 1998; Oct. '99]	
Undergrad. gender and music	8
Undergrad. Electroacoustic composition Mar. '98	14
Undergrad. Electroacoustic composition Oct. '99	9
Trent Radio Art Day	7
University of Toronto Graduate Colloquium, March 1998	3
Vancouver Cultural Centre concert, April 1998	1
Waterloo University [March 1998]	
Undergrad. music theory	10
Undergrad. composition	10
Western Front, Vancouver, April 1998	4

York University

Graduate women's studies seminar, Feb. 1994	5
Graduate ethnomusicology seminar, Feb. 1994	1
Undergrad. electroacoustic composition, Feb. '94	11
Graduate dance seminar, Jan. 1995	6
Undergraduate listening course, July 1995	3
Undergraduate ethnomusicology, February 1998	35
York presentation, February 1998	1

Appendix F

Operation of the CD ROM

There are three folders included on the CD ROM: Text archive, Web, and Sounding places. The text archive contains ASCII files of the text portion of the dissertation. The Web folder includes HTML-coded documents to view using a web browser. The Sounding places folder has an electronic installation, created using Macromedia Director for the Macintosh. Please note that this production is formatted only for the Macintosh computer.

Hardware requirements:

Macintosh Power PC computer, at least 68040 with a minimum of 8 megabytes of RAM.

For Sounding Places installation: The installation runs most smoothly if the whole Sounding Places folder is copied onto your hard drive, but it can be run from the CD ROM if necessary. It will sound best if stereo speakers are used to project the sound.

For text and web files: A copy of Netscape Navigator, a freeware web browser, is included on the disk to use as a reader for both text and HTML. While many of the web files can be read off-line, to access external links (for instance, the link to the World Forum of Acoustic Ecology), you will need an active internet connection.

Operation:

1. Text Archive

The text archive includes each section or chapter of the dissertation as a separate text file. These files can be used by opening them as a local file [File->Open] within the copy of Netscape Navigator provided on this disk, or within another text editor or word processor. If you wish, you can print out files to read on your back porch instead of in front of the screen. It is also possible in Netscape to search for particular phrases in the text, if you are interested in a specific topic. The naming conventions are as follows:

Abstract	abstract.txt
Acknowledgments	acknow.txt
Contents	contents.txt
Chapter One	ch1.txt
[etc.]	
Appendix A	appa.txt
[etc.]	
Bibliography	biblio.txt

2. Web

The web folder contains standard HTML-coded documents. They mirror the state of my website, developed on the York University Fine Arts server [www.finearts.yorku.ca/andra/] as of July 1999. There are two areas of this website that will be most useful to readers of this dissertation: the Queen Elizabeth Park Soundwalk, and the page about Hildegard Westerkamp. Readers may also wish to access online examples of my previous research in the intersection of gender, music, and technology.

Queen Elizabeth Park Soundwalk

Open the soundwalk folder within the WWW folder. Open the file called "qep.html" as a local file in the web browser. This file includes a map image with links as well as various text links that lead to different sections of the park, as well as an Acoustic Ecology page that links to the World Forum of Acoustic Ecology website.

Hildegard Westerkamp page

Open the research folder, then open the file called "westerkamp.html" as a local file in the web browser. This page includes links to several online articles about Westerkamp, as well as other useful links, such as the Canadian Music Centre pages about her, and locations where you can purchase some of her recordings.

Previous research

Open the research folder, then open the file called "abstracts.html" as a local file in the web browser. This page includes abstracts and publication information about some printed articles by Andra McCartney, and links to several online articles.

3. Sounding Places electronic installation

This installation was created using Macromedia Director for Macintosh, a multimedia development application. The version on this disk is only playable on a Macintosh computer. It does not require a copy of the Director application in order to run: the main page of the installation is a projector, a play-only version of the installation that runs from the Finder. The projector file cannot be opened or edited.

To play the installation, doubleclick the icon named "Soundings" in the Sounding places folder. You will see the introduction, then a screen with four large images and a smaller one in the middle. This is the main screen of the installation. If you move the mouse around, you will see that each image is high-lighted in turn. Click on an image to move to that section of the installation.

Introductions

The small icon in the middle of the main page leads to a larger photograph of Westerkamp and myself, in her studio. If you click on my name on that photograph, you will be able to read about how I first heard her work. If you would like more introductory

information on the dissertation, read Chapter One in the text archive. If you would like to read Westerkamp's biography, read Chapter Four.

A Soundwalk in Queen Elizabeth Park

This section leads you to short pieces composed by me from a soundwalk recording by Westerkamp. While the website about Queen Elizabeth Park is documentary in approach, this installation includes further transformations of the sounds from the recordings. I used compositional techniques similar to Westerkamp's in order to produce these pieces. (see the web section on soundwalks, and Chapter Six in the text archive, for more information on soundwalks).

In the Studio

This part of the installation introduces sound files used to compose *Gently Penetrating Beneath the Sounding Surfaces of Another Place*. You can listen to the files individually, while reading about how they were made. Or you can look at a score excerpt while listening to part of the piece. Different parts of the score are highlighted as the related sound files are used in the piece. (See Chapter Ten for more information about this piece).

Moments of Laughter

Here you can listen to excerpts of this piece for tape and adult female voice. From the main page of this section, you can choose to hear one of four excerpts, either with the score of the piece, or with images produced by adolescent girls while listening to the piece. (See Chapter Eight for more information about this piece).

Analysis of Breathing Room

This section is an experimental form of the written analysis of Breathing Room (which can be found in Chapter Nine). In order to emphasize the different identities of the listeners, I vary the background colours for each voice. The issues raised in the responses are summarized in several sections that are accessible from the main page. You can listen to the piece while reading responses, or while looking at Westerkamp's score and my transcription of the piece, juxtaposed with each other.

Appendix G

Soundwalking Queen Elizabeth Park

The section available from the main page of the electronic installation entitled "A Soundwalk in Queen Elizabeth Park" is one based on a soundwalk recorded by Westerkamp in my presence. I composed musical pieces from this recording, using similar compositional techniques to those employed by Westerkamp. This process was an important part of my work on the dissertation, so I describe it here in detail.

My desire to walk with Westerkamp while she recorded a soundwalk was partly to be a participant-observer: to hear what she was hearing as she recorded. I wanted to enter her sound bubble, to share that experience with her. I also wanted to create my own response to that experience, one which would use visuals and text to attempt to create "a type of open ear," to facilitate people's listening through a multimedia presentation.

Since I had first heard of Westerkamp's work, the idea of using recorded soundwalks as source material for compositions had appealed to me greatly. Initially, I believed that recorded soundwalks were a necessary part of Westerkamp's compositional process. At one point, I showed Westerkamp some text for the CD ROM, in which I stated: "Westerkamp thinks of a soundwalk as the first steps in any composition." She pointed out that this is not exactly what she thinks. She records her own sounds for compositions, because they connect her to the place of recording, and sometimes also includes recordings done by others, as long as she understands the context of these recordings. But she does not necessarily record sounds as part of a soundwalk: they are field recordings of various aspects of a place. She finds that soundwalk recordings do not usually work well for her as materials for a composition, because they are full of motion and in a way are already composed.

I wondered why I had misinterpreted her compositional method in this way. At first, I thought that it must be because of how I first learned about Westerkamp's work, by reading the *Soundwalking* article. I connected her compositional work to what I had read about her programme *Soundwalking* at Vancouver Co-operative Radio, and to what she said about soundwalking in the article. The practice of soundwalking as the basis for a compositional method became important for me.

But why had I chosen to read Westerkamp's work in this way? Perhaps it is because my initial reaction to hearing her work was to do a soundwalk, record it and compose with it. Before I had read anything about her, but after I first heard her work on the radio, I recorded a soundwalk to make my first piece, *Birthsounds* (1990). I walked through the hospital where I gave birth to both of my children, and worked in the studio to create a piece about giving birth in that sound environment, setting my earlier poem of the same name. Since then, almost every piece I have done has been based on a soundwalk: I think of the soundwalk as my first steps in a composition.

My choice of a hospital as the sound environment for my first piece points to another important aspect of soundwalking--the walking part. For me, walking is something of a miracle. After it was discovered that I had dislocated hips, I was in a plaster cast from the age of fifteen months until I was about four, and during that time I spent about a week of each month in hospital. When I was four, I was given a walking cast, and eventually joined the other children playing on the street. In the last few years, I have begun to have problems again with my hips. Recently, during physiotherapy to correct these problems, I began to have vivid memories of that early time in hospital, many of which are rich with sound. Even though I had lost those early memories when I composed that first piece, perhaps I was searching for them through the soundwalk. It just took me eight years to find them, once I started.

Compositional Process

As a result of doing the Queen Elizabeth Park soundwalk with Westerkamp, I had a number of materials to work with. There was her original article from 1974, my journal entries from the visit where we did the soundwalk, the photographs that I took on that day, and the DAT tape itself, which became the basis of my listening over the next months.

When I returned to Toronto, I listened to the DAT tape repeatedly. I wanted to create something that spoke about Westerkamp's approach to soundwalking, about our experience together, and about the place itself. Initially, I was reluctant to edit the tape at all, because I was impressed with its integrity as a whole. Each moment and gesture flowed into the next, and the ninety minute experience felt like a piece in itself. But I was intending to make a website,¹⁸⁴ in which sound excerpts are by necessity very short, as well as a CD ROM,¹⁸⁵ which is less restricted but still has time (computer memory) limitations.

First, I noted particularly striking moments in the soundwalk that said something to me acoustically about the places in the park that we had visited. These formed part of a soundwalk website. I made a copy of the soundwalk tape, and gave it to artist P. S. Moore. He began producing a series of drawings, paintings and sculptures, based on his listening to the soundwalk and to compositions that I later created.

¹⁸⁴ The website became a part of the "I ask you..." acoustic ecology online exhibition, <http://www.d.umn.edu/~lbrush/I_ask_you_info.html> at the Tweed Museum of Art. It was also part of my electronic installation, with the CD ROM, at the Stockholm Hör Upp (Hey Listen!) acoustic ecology conference.

¹⁸⁵ The CD ROM was part of a gallery installation at the Eleanor Winters Gallery, York University, in January 1998. This installation involved drawings, paintings, and sculptures by P. S. Moore, as well as wall projection of images from the interactive CD ROM, and stereo sound. Later that same month, the gallery installation travelled to New York City, to the Kitchen <<http://www.panix.com/~kitchen/>>, where we took part in the Music from Nature: Terra Nova Concert Festival. In this event, no computer was available. So the gallery installation in this case integrated short videos made from the CD ROM, on TV monitors, with P. S. Moore's artworks. There was also a gallery installation at the KAAI Modern Fuel Gallery in Kingston, in March 1999.

At the same time, I began to work with the recording, by excerpting interesting gestural moments where Westerkamp used the microphone to highlight relationships between sound sources, and to create new sonic relationships. Two of these excerpts were used directly in the installation: one which linked the areas of the sunken garden and the creek; the other in the lookout section based on the sonic relationship between a passing airplane and the Conservatory venting system. Another, which highlighted the relationship between the waterfall in the sunken garden and the drumming of some park visitors, became an important part of one of the composed pieces.

I needed to condense the whole experience so that I could work with it within the restrictions of computer memory and presentation format. I focused my attention on four areas of the park: the Conservatory, the Sunken Garden, the Lookout and the Creek. (The website refers to all seven areas originally discussed in Westerkamp's article). As soon as I focused in this way, these four places started to take on symbolic meaning (two on high, two below; the mountain above, the water below). I decided to use chance operations to choose segments of sound, in order to avoid becoming overly polemical, and to maintain a focus on what we had actually heard. I rolled dice to choose one segment of sound from each minute of the walk in each area. These excerpts were around ten to fifteen seconds long. I cross-faded the segments to create condensed versions of each part of the soundwalk.

A condensed piece associated with each location is accessible on the computer installation map by clicking one of the named areas. The piece for the lookout is the shortest at about 70 seconds. Even though we walked through this area the most often (three times), we only stayed for one or two minutes each time. Each of the other three pieces is about three minutes long. The text associated with each of these pieces is either excerpted from Westerkamp's article *Soundwalking* (Sound Heritage, 1974), or based on our conversations and my journal entries about the soundwalk on that day.

Next, I rolled dice again to choose particular segments to focus my attention further, meditating on the sonic relationships in the ambience of each selection and producing short compositions that highlighted certain aspects of the soundscape. I used techniques such as pitch-shifting, filtering, and equalizing. As with Hildegard Westerkamp's approach to composing, I wanted to maintain relationships between the processed sounds and the original sources, with an aim of intensifying the listening experience. Each composition returns periodically to the original recorded sound. These pieces are accessible from the map by clicking on icons linked to each of the four areas of the park.

The images were related to each of the sound files by referring to James Tenney's ideas about music and gestalt perception. I used significant changes in the tempos, timbres, pitches and harmonies of the sounds to determine how the images would change over time. For instance, in the Sunken Garden area, as we approach the waterfall, timbral density and amplitude both increase. The associated imagery becomes increasingly layered, with concentric rings that allude to the regular rhythm of the drums, and excerpts from photographs of the water that emphasize its quality of timbral complexity. In both

the imagery and the sounds, I attempted to reflect on listening, through abstraction, based on the experience itself.

Finally, each composition was completed and connected to the map on the computer screen. The first gallery installation of this work took place in January 1998, at York University. Fortunately, Prof. Don Sinclair made this installation the focus of a student online journal assignment, so I was provided immediately with scores of responses to the work.

Audience Responses to Soundwalking Queen Elizabeth Park

Comments derive from log assignments completed after students in an undergraduate Interactive Multimedia course viewed the installation by myself and P. S. Moore at the Eleanor Winters Gallery at York University. I also include references to comments made in the guest book during the installation, as well as at a graduate music composition seminar.

Multimedia Sound Awareness

Canny noticed that our installation, as well as the one by Don Sinclair the following week, both focused on sound. This is unusual in a multimedia installation, especially one made using the Director program. The capabilities of this program to work with images far surpass its capabilities with sound, and many Director textbooks speak of "adding" sound as one of the final steps in a multimedia work. On the contrary, this project began with sound--not brief sound effects or MIDI music, but a digitally recorded soundwalk.

Several students noted that the installation heightened their listening experience. Cheryl says: "Your installation got me thinking about how to be more aware [of sound and noise]." Tara notes: "the sounds were quite clear, and made you stop and realize how often you don't pay attention to those sounds." Natasha likes the way that the sounds create a sense of movement, and the way that compositions integrate 'naturalistic' sounds with some that are more processed. Yun says: "what I found amusing was how we don't notice such sound around us and pass by easily without noticing. People's laughter, whisper, children's giggling, beautiful and refreshing sounds ... such a powerful sound of water flowing ... Details of nature--trees, splashes of waterfall, tiny shapes of birds ... These are the ones we easily miss in our everyday life and the ones she captured to remind us of their beauty and great presence among us."

Interactivity: Concrete to Digitized and Map Interface

We did not include an artists' statement at the gallery installation, so audience members did not have any background information about how we had put the exhibit together. Yeun says that the "sketches and drawings and collection of images around the computer were really helpful to understand the lines in the computer image on the screen." Maureen says: "I find the interaction of the user with the art the most interesting element of this work and media. Being surrounded by physical artwork of similar natural subjects, by sound and the changing imagery, the user is almost immersed." In the installation guestbook, JD says:

I appreciate your recognition of the space around you, not only within your multi-media exploration, but of your occupation of the gallery space itself. The connection of the objects, images and studies which you have introduced into the 'environment', and their evidence on the walls in markings, etc., serve to heighten the levels of interaction and communicative exchange on levels which refer back to and heighten and expand those issues of space, landscape, experience and communication addressed in the video and multi-media work. I am far less isolated in the space than I expected to be.

Some people do not perceive an interaction between the concrete and digitized work. One of the guestbook comments notes that it is an interesting juxtaposition, but "seems somewhat like two separate shows, combined to create one." Miguel also mentions this. Another guest says: "the connection between the triangle-lamp and the shell, and the plane fan was made after a little looking, as well as the pics by the entrance and the jungle, but what does it all mean?" Christopher also says that he does not completely understand the relationship between the concrete imagery and the piece on the computer. Had we influenced people's perceptions with our own ideas, we may not have had the diversity of interesting interpretations that occurred.

For instance, two people had fascinating responses to the map of the park that formed the main interface. Angie sees this page as a brain, perhaps experiencing the installation as an exploration of the mind or memories of someone who has visited a park (which of course it was). Theresa says "The main page (soundmap) looked to me like the interior of the ear, showing how sound was leading from point A to point B, the ear drum." Theresa's interpretation focuses on the importance of listening in this piece. While we did not intend either of these interpretations of the interface, each adds a new dimension to the installation that we did not anticipate.

Different Places

Many of the students in Interactive Multimedia commented on the place that is constructed through this installation, as Yeun notes: "I was surprised how Multi-media could make people feel like going into another world with all the tensions and mysterious feelings." Tanja: "As the viewer clicks onto the map the viewer is taken into a world that stimulates the senses. Sounds are heard echoing off the white walls of the gallery and the pictures flash and blend before the the viewers eyes. The map enables the viewer to choose his or her own journey into the mind of the artist."

Tara says that the installation "made you feel as if you had really visited Vancouver and the park." Several people at both the York University and the New York versions of the installation said that it reminded them of visits that they had previously made to Vancouver. Marcia's comment is interesting: she says that she would like to visit the park some day "to see how my perceptions of the second visit differ from the first." Here, she is referring to her visit to the installation as a visit to the park itself. Wendy makes an important point when she describes this as "a unique experience of a day at a park ... that enables the viewer to be there with her." This construction of Queen Elizabeth Park is

one based on a particular recording made at a certain time on a soundwalk by two individuals. The recordist's unique perspective influences how a soundwalk recording will be created, and how it will sound.

Some people focus on the parts of the installation that brought them closer to Nature, away from the stresses of urban life. Two comments in the guest book describe the "ideas portrayed with the sound in relation to nature" as "comforting and relaxing" while another says "very meditative." Yeun says, about the "Jungle" piece: "Even with the abstract image I thought it was like big leaves overlapping, so layer by layer I was entering the jungle getting deeper and deeper into the sounds." Natalie finds the water sounds particularly relaxing. Sam describes the installation as "a journey through wilderness, surrounded by lush gardens, tropical plants, exotic sounds and blissful dreams ... no worries, no concerns, no problems, no stress! A destination that exists far beyond the realms of technology, chaos and power."

Of course, this installation exists at least in part because of technology. Some other audience members write about the installation as futuristic. John describes it as portraying "a normal and serene setting in a particularly futuristic manner ... you can experience what it feels like to be in a place without really being there." He continues by adding "This idea bothered me a little." Although John does not elaborate about why this idea bothered him, perhaps it could be because virtual worlds can seem a replacement for physically going somewhere. At the same time, a virtual project like this can increase people's awareness of the world, heightening their experiences. The viewer can be "taken into a world that stimulates the senses" (Tanja). Issues such as this continue to concern composers such as Westerkamp, as she says in the liner notes of her recent CD, *Transformations*:

"These compositions are now on this disc, an altogether abstract place, far away from the places in which the sounds originated ... A forest piece in an apartment by a freeway... can it draw the listener back into the forest? An urban piece in quiet country living... is it necessary?" (HW)

Michelle suggests a practical application of a visit to a virtual place: "someone who isn't able to travel could view the sights and listen to the sounds on the computer." Andrea speaks of the "technological presence" of the show. She makes an interesting interpretation which was not intended by the artists, when she says "some of the works were parts of the human body ... hinting at an evolution of the human form to that of a more 'wired' one." Although we did not intend to present images of wired bodies, this striking commentary gets at an important issue in technological work which uses ideas of Nature and organic forms as sources. If we celebrate nature or the beauty of organic forms using technological tools, it is hard to see these concepts or systems as opposites or antithetical to each other. Technology seems embodied in the organic; nature—and the body—seem somehow wired, as Westerkamp and I were wired to each other throughout this soundwalk. Where does nature end and technology begin? Can we use technology to escape to Nature, like when we leave the city by car? Can we use technology to protect Nature, in the way that the Kayapo Indians use video to make people aware of the devastation of the rainforest? When composers use technology to comprehend and interpret the soundscape through recording and editing soundwalks, they are not only

inside and outside the soundscape, as Westerkamp says, but also mediating among nature, technology, and the recordist's moving body. The resulting piece is in one sense a documentation of a specific time and place, in another a performance with chance sonic events and in a third, reflective mediations and interpretations of those events to create another place which refers acoustically to the original recording and incorporates the recordist's experiences of the sounds recorded. Audience responses to this work voice some of the same questions that interest me about this work, such as how gallery installations are related to the environments that inspired them, how hearing recorded sounds and pieces based on them leads to reflection on the significance of daily sounds that are often ignored, and how technology facilitates and constrains the documentation and representation of an experience.

Good afternoon and welcome. I would like to thank all of you for coming to my defense; it is good to see so many familiar and friendly faces in this room. In this presentation, as in so many other parts of the dissertation process, I would like to follow the excellent example set by Karen Pegley, and introduce those of you who have not read it to the underlying principles of my work.

I was guided in this research by an intense curiosity about the work of Hildegard Westerkamp, and why hearing her work contributed to changing my life quite definitely and deeply. I heard her work on community radio about ten years ago. Within a few weeks I had rented recording equipment and began to record soundwalks, and some time later I applied to York to begin graduate work, focusing initially on women composers of electroacoustic music.

Eventually, in 1994, I met Westerkamp, and we began a dialogue that has informed both of our lives and works since then.

The phrase "situated conversations" in the subtitle of my dissertation refers both to Westerkamp's approach to composition and to my method of analysis of her work. I borrowed this phrase from Donna Haraway, who describes situated knowledges as accounts of the world that are not dependent on a logic of discovery or unique authorship, but rather on a power-charged social relation of conversation.

When I listen to Westerkamp's soundscape work, I hear conversations with active sound environments in specific places in which she is always aware of her own position as recordist. I have developed a method of analysis of her work that makes evident the diverse conversations between composer and listeners, composer and researcher, musical work as composed and as heard, continuing the dialogue.

Recently, Westerkamp sent me a copy of a paper that she intends to present at a soundscape conference in Amsterdam this November. In that paper, she says:

to date, there have been few attempts to define soundscape composition as a genre; to articulate its significance and position in relation to contemporary music, electro-acoustic composition and experimental radio production; to highlight its potential in enhancing listening awareness; and to understand its role in inspiring ideas about balanced soundscapes and acoustic ecology. The few written pieces that do exist, such as Katherine Norman's¹⁸⁶ and Barry Truax's¹⁸⁷ articles as well as Andra McCartney's dissertation¹⁸⁸, address many of the above ideas and create an understanding for the deeper issues underlying the creation of soundscape compositions. They raise awareness about the type of listening these compositions encourage in an overloaded sound world that challenges us to take a stance both as listener and composer. I have taken inspiration from their writings ... as their different ways of speaking about soundscape compositions create a broader base for discussing this relatively new genre of contemporary composition.

During the last few years, Westerkamp and I have influenced each other a great deal, as that quote by her indicates. This dissertation is in many ways an exploration of the epistemic potential of friendship. In her discussion of the importance of second persons to the construction of knowledge, Lorraine Code proposes friendship as an epistemic paradigm. In part, this dissertation explores how the growing friendship between Westerkamp and me opens up creative possibilities for a sound alliance between us, and contributes to our knowledge.

¹⁸⁶ Katherine Norman, "Real-World Music as Composed Listening", *Contemporary Music Review*, 1996, Vol. 15, Part 1, pp. 1-27.

¹⁸⁷ Barry Truax, "Soundscape, Acoustic Communication and Environmental Sound Composition", *Contemporary Music Review*, 1996, Vol. 15, Part 1, pp.47-63.

¹⁸⁸ Andra McCartney, "Sounding Places: Situated Conversations through the Soundscape Work of Hildegard Westerkamp", PhD Dissertation, Graduate Programme in Music, York University, 1999.

First, I wanted to situate both Westerkamp's approach to place in music and the place of soundscape composition in relation to electroacoustic music. Chapter Two begins with a discussion of the importance of the concepts "absolute" and "program" as they affect contemporary composers' approaches to place in music. I consider these concepts in light of current critical anthropological and geographical constructions of place. The second part of Chapter Two continues the discussion of place in music by focusing on Canadian music. I refer to contemporary Canadian literary, art, and musicological theory in my discussion of the idea of Canada as a place within concert music of the last century, how some Canadian concert composers deal with places within Canada, and how their ideas of place have interacted with current international conceptions of what Canada is.

In Chapter Three, I focus on the development of contemporary soundscape composition, its lack of canonical acceptance within the field of electroacoustic music, and the epistemological significance of its positioning within this field, using feminist epistemology as a critical lens. I discuss definitions of electroacoustic music, and the categorization of the field in several electroacoustic textbooks, focusing particularly on how tape music, and more specifically soundscape music, is represented. I then examine dialogues among several composers (Pierre Schaeffer, Karlheinz Stockhausen, John Cage, and Pierre Boulez) who influenced thought about electroacoustic composition in the late 1940s and 1950s, at the time when the first studios began to be established. Finally, I discuss two women composers, one whose influence was circumscribed by her isolation (Daphne Oram), and one who has influenced Westerkamp's work (Pauline Oliveros), and end with an investigation of Westerkamp's thinking, particularly her receptive dialogic approach to recording and composing.

Westerkamp has developed a way of working in which she constantly questions her own position as composer, recordist, presenter, and listener. Her Master of Arts in

Communications at Simon Fraser University was a critical examination of her own life history as it shaped her musical experience, as was the performance piece *Breathing Room 3*, written in 1991. Chapter Four is a biography that takes these works as a starting point, then continues to the present day, documenting Westerkamp's life and work, and showing how her various roles as composer, radio artist, educator, acoustic ecology activist and mother have intersected in her work. I go back and forth between excerpts from her thesis and performance piece, and my own words, constructing a dialogue between her writings and my commentary on them.

In Chapter Five I discuss the analytical methods that I use to approach Westerkamp's work. Electroacoustic music has defied traditional methods of analysis that rely on scores, because they rarely exist in this genre. My approach brings together critical and feminist theory with James Tenney's gestalt approach to musical analysis, and a wide range of listener responses, to discuss the music in context. There are very few analytical projects in electroacoustic music that refer to listener responses, and those that do exist tend to cite responses *en masse*, without specific quotes or discussion of the relative authority of different listeners. I arranged listening sessions of Westerkamp's work in several university classes in a number of disciplines, at concerts, on community radio, and through internet and mail contact with listeners. I focus on bringing the responses of listeners from varied listening backgrounds directly into the discussion of the music, as well as considering relationships between these responses and the gestalt perceptual principles elaborated in Tenney's work. This provides the means to discuss sonic, musical, social, and political issues that arise in the works. This method of analysis explores relationships among the perceptions and attitudes of listeners, those of the researcher, and those of the composer.

I chose five works for analysis. *Kits Beach Soundwalk* is related to Westerkamp's important work as a radio artist at Vancouver Cooperative Radio, and her approach to soundwalking as a listening and compositional practise. *Cricket Voice* reflects Westerkamp's ideas about wilderness and acoustic ecology. *Moments of Laughter* is an example of a piece for live performance and tape, demonstrating her approach to the performer, and to the relationship between performer and tape. It is also an exploration of the musical importance to her of children's voices. I chose *Breathing Room* because this short tape piece was intended to encapsulate her style. Finally, I focused on *Gently Penetrating Beneath the Sounding Surfaces of Another Place* as representative of her recent international work and her deep interest in the Indian soundscape. In chapters Six to Ten I discuss my analyses of these works.

Many of these chapters have important components in multimedia format, which I have brought together on a CD ROM. For instance, the chapter on soundwalking: In August of 1997, I did a soundwalk with Westerkamp, which took place in Queen Elizabeth Park, Vancouver. Westerkamp recorded the soundwalk, with both of us listening using headphones, while I photographed it. This resulted in a website about the soundwalk. I have since expanded this website to include several more recent soundwalks that I have done. I also produced an interactive multimedia installation based on this soundwalk, which became a gallery installation that I produced collaboratively with visual artist P.S. Moore. For *Moments of Laughter*: The CD ROM includes excerpts of *Moments of Laughter* linked to images produced by adolescent girls as they listened to it, and score excerpts that indicate the relationship between tape part and performer. For *Breathing Room*: On the CD ROM, an interactive movie based on my analysis of this piece allows the audience to read responses to various aspects of the work, grouped according to the issues raised, while listening to it. Another link leads to Westerkamp's score and my transcription of the piece, juxtaposed. For *Gently Penetrating*: A section on the CD ROM

called "In the Studio" includes an introduction to how Westerkamp created *Gently Penetrating*. This multimedia presentation includes imagery from the place represented in the composition as well as computer score fragments linked to sound files, accompanied by Westerkamp's comments about her use of each file in the resulting composition, and its relationship to the context of the sound environment. This allows listeners to understand exactly how Westerkamp constructs a piece from source sound files.

In the conclusions, Chapter Eleven, I consider how this conversation between text and hyper-text, composer, researcher and listeners, sounds as recorded and as processed, places as real and imagined, has worked, and in what ways it has opened up new curiosities to explore and consider.

to quote from Westerkamp's recent paper once more:

The soundscape composition is a *new place of listening*, meaningful precisely because of its schizophrenic [or displaced] nature and its use of environmental sound sources. Its location is the electroacoustic realm. Speaking from that place with the sounds of our living environments inevitably highlights the world around us and our relationship to it. By riding the edge between real and recorded sounds, original and processed sounds, daily and composed soundscapes it creates a place of balance between inner and outer worlds, reality and imagination. Soundscape listening and composing then are located in the same place as creativity itself: where reality and imagination are in continuous conversation with each other in order to reach beneath the surface of life experience.

Just as Westerkamp strives for balance between original and processed sounds, inner and outer worlds, I have aimed for balance in this dissertation between hypermedia and text, listener responses and my interpretations of them, participation in Westerkamp's works as performer, as fellow composer and as musicologist. A focus on dialogue has been

fundamental to the composition of this dissertation, in form and content. I feel I must end by commenting on this place, this social place of the oral examination, the defense, and its relation to dialogue. At times, it seems that the rules governing the formation of examining committees seems to contribute less to dialogue as an intellectual aim than to the maintenance of a hierarchy between the examiners and examinee [that is, me]. For instance, for a while it seemed that one of my committee members would not be allowed to take part in today's event, because I had communicated with her too much about my ideas, she was not external enough. And my external examiner was directed to give a report on her reading of my dissertation to my supervisor prior to the defense, but not to me. Even though we are eager to talk to each other about the ideas presented in my dissertation, this dialogue has been limited up to this point. My committee has managed to find a way through many of the rules surrounding defenses. The presence of my entire committee here today is one evidence of that. However, I do question the validity of rules that constrain dialogue among academics in order to maintain the hierarchy of examinations.