

University of Alberta

**The Absent Ear: A Phenomenological Investigation
into the Confluence of Recording Technology and Musical Listening**

by

Silvia Yee



A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment
of the requirements for the degree of Master of Arts

Department of Music

Edmonton, Alberta

Fall 1997



National Library
of Canada

Acquisitions and
Bibliographic Services

395 Wellington Street
Ottawa ON K1A 0N4
Canada

Bibliothèque nationale
du Canada

Acquisitions et
services bibliographiques

395, rue Wellington
Ottawa ON K1A 0N4
Canada

Your file *Votre référence*

Our file *Notre référence*

The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.

The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.

L'auteur conserve la propriété du droit d'auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

0-612-22561-5

The eye cannot say to the hand, "I don't need you!" And the head cannot say to the feet, "I don't need you!"

1 Cor. 12:21, New International Version

Thus vacillate I between dangerous pleasure and tried soundness; being inclined rather (though I pronounce no irrevocable opinion upon the subject) to approve of the use of singing in the church, that so by the delights of the ear the weaker minds may be stimulated to a devotional frame. Yet when I confess myself to be more moved by the singing than by what is sung, I confess myself to have sinned criminally, and then I would rather not have heard the singing. See now the condition I am in!

Saint Augustine
Confessions. X, Ch. 33

If there were a law of nature to which to appeal in such a matter, surely it would decree first that academically propagated creatures are unnatural species . . .

Maxine Sheets-Johnstone
1996, 12

Music is only inhaled - not song, nothing that your tongue has shaped, but something in the ear that settles in the flesh and finally in our bones.

E.D. Blodgett
1996, 56

ABSTRACT

The discipline of musicology has analyzed the musical object in such varied manifestations as a live performance, a written score, a sound recording, and a cultural/social construct, but has rarely viewed music as a lived experience. This paper incorporates phenomenological methodology and perspectives within musicological inquiry, to arrive at a theoretical conception of the essence of the experience of listening to Western art music. While traditional musical writings tend to uphold a Cartesian opposition of mind and body that privileges the mental cognition of music, listening is treated here as an experience that is necessarily rooted in the physical body. The impact of recording technology on the listening experience, particularly those technologies that allow musical objects to be heard in diverse physical contexts, are then examined. When academic disciplines fail to address listening as an *embodied* process, they risk arriving at a one-dimensional and socially over-determined interpretation of recording technology's influence over musical phenomena.

ACKNOWLEDGEMENTS

I would like to thank the members of my committee: Gerald Robertson - who always responded with gracious enthusiasm, Brian Harris - who lent me the very appreciated gifts of his gimlet eye and grounded observations, and David Gramit - who generously gave me far more patience, space to experiment, insight, and encouragement than any graduate student has the right to expect. They helped to make this process as pain-free as it could be. I would also like to thank the Department of Music at the University of Alberta, for their helpful flexibility, the Health Law Institute at the Law Centre of the University of Alberta, for their support and technical assistance on occasions too numerous to mention, and 'cousin Kim,' who with cheerful efficiency finishes what I have begun. Finally, conversations with Henry Klumpenhower, Howard Bashaw, Michelle Crouch and Ian Knopke provided me with rich food for thought over the past two years.

TABLE OF CONTENTS

Chapter	Page
I INTRODUCTION	1
II PHENOMENOLOGY	
A. Prelude	6
B. The Experience of the Lived Body	8
III MUSICOLOGY AND THE LISTENING (BUT ABSENT) BODY	20
IV THE PHENOMENOLOGICAL IMPACT OF RECORDING TECHNOLOGY	
A. Recording Technology in History	51
B. The Listener and Technological Control	63
C. The Adequate Future	71
V CONCLUSION	79
REFERENCES CITED	83

CHAPTER I INTRODUCTION

The linking of music with the soul, the heart, the mind - the incorporeal self - has long been a foundational assumption in how Western philosophers and scholars analyze music. Greek philosophers such as Plato and Aristotle¹ laid the foundations for the development of Cartesian dualism and the split between human mind and body, philosophical ideas which came to have a tremendous influence over the formation of Western philosophical thought in both the sciences and the humanities. The habitual intellectual division of body and mind, the overlooking of the “lived body” (Leder 1990), has helped to foster a particular view of how music should be heard, and of how human minds and bodies should relate to “great music.” The field of musicological study has traditionally focused on questions that concern the *object* of music: what is the meaning of a particular piece of music, which pieces are “great” and what makes them “great,” how a particular piece is structured and organized. Recently, musicology has examined how various social and cultural factors may influence a piece’s composition and reception. Without denigrating the value of such approaches, I will *not* be focusing on a particular

¹In both Plato’s *Republic*, and Aristotle’s *Politics*, the ideal public education for young people is described as a balance of different topics, some of which disciplined the mind and some of which trained the body. For example, “gymnastics” would take care of physical needs, while the right kind of music helped to shape the “soul.” (*Republic* 3.412A)

musical object (and consequently, I will not need to address how I would justify my selection), or on the changing ways in which Western society defines and uses the musical object, but rather on finding a useful and relevant means to describe the experience of listening to Western art music. The musical object *may* well have changed with the advent of recording technology (and establishing such a thesis raises its own issues and problems), but just as importantly, I believe technology has effected changes in the embodied listening experience, and has had a commensurate and consequent impact upon our view of, and expectations for, the object.

No one listens to music in a cultural and social vacuum, and our awareness of this fact has led to music studies that investigate beyond the theoretical or aural dimensions of the musical object itself. I would like to introduce the further position that no one listens to music without a living body. If we want to have and articulate a dynamic conception of musical experience - its composition, its performance, and its listening - than we should recognize ourselves as embodied persons within a cultural context who are engaged both mentally, spiritually *and* physically when we hear music. In posing this premise, I hope to isolate and understand the effects of technology on musical listening in a way that neither nostalgically pines for the so-called naturalness and spontaneity of unrecorded live performance, nor advocates a distant utopian ideal of music technologically "freed" of the body's limitations. While various writers, both musicians and those mainly active in other disciplines, have based their predictive visions in part on the unarticulated assumption that technology will trigger changes in how we *experience* music, their discussions of musical experience are often marked by the same curious unwillingness evident in traditional

musicology to understand musical experience as a function of the body.²

The lived body is pivotal to my conception of musical experience. If one accepts that sound and music are phenomena that exist in reality, one must acknowledge that listening to music is an experience that involves sensory input and bodily sensation. The auditory sense may be the most obvious and primary source of sensory input, but other senses such as vision and touch, and the feel of rhythmic impulse, may also be part of the experience. In other words, human beings receive music through their bodies. Music may be electronically produced, culturally "reified," economically and politically objectified, socially resistant, and technically reproduced, but it is still perceived and received through our bodies. In and of itself, such an assertion does not necessarily imply an unchanging or metaphysical aspect to either music or the process of listening to music, but merely involves an attempt to posit a common starting point to the human experience of music. I propose to adopt the methods of phenomenology to arrive at a conception of the *experience* of listening to music; the symbiotic interaction of this experience with the kinds of changed circumstances and experiences made possible only through recording technology - especially technologies that allow for musical objects to be heard in diverse

²In fact, writers in other disciplines who deliberately set out to take an interdisciplinary approach to the experiences of the lived body have generally avoided the area of music, concentrating instead on such areas as medicine (Sheets-Johnstone, 1992b) and visual mediums such as fine art (Crowther, 1993) and television (Brunette, 1994). In the area of music, musician Glenn Gould, and economist Jacques Attali, have written pieces that generally pay little attention to the lived reality of musical listening and performance. Suzanne Cusick and Elisabeth Leguin, among other feminist musicologists, have written articles that border on utopian in their expressed hope for the liberating potential of different kinds of listening experiences, but at least this branch of current musicology tends to pay significantly more attention to issues of body.

physical contexts - will then be examined more closely.

This thesis primarily seeks to incorporate phenomenological methodology and perspectives within musicological inquiry, and in the process reveal how traditional musical historiography has emphasized the musical object at the expense of studying the lived experience of music. First, I will review phenomenological theories to arrive at an understanding of the lived body as an experiential and knowledgeable creature. The historical and intellectual development of phenomenology as a philosophical movement will be reviewed as necessary, but not exhaustively covered. It is not my intent to prove or disprove the existence of music as a real phenomenon, nor will I defend phenomenology as the philosophical key to understanding one's place in the (experienced) sun. Secondly, I will review traditional and more recent accounts of the experience of music, especially listening to Western art music, to trace how musicology and listening have been influenced by the historical philosophical dualism of mind and body that permeates Western academic thought and writing. Thirdly, I will propose phenomenological analysis as a vital tool for taking account of how recording technology has effected changes in the experience of musical listeners; musical experience is changed by recording technology, and the mere fact that the same canonic repertoire may dominate in both live and recorded performances does not equate the two experiences phenomenologically. Phenomenology allows recording technology to be viewed without the oversimplification of a "good" or "bad" moniker, but as an inevitable force of change that simultaneously enhances and potentially destroys the musical listener's previous experiences of music. Finally, recent writings that purport to focus on the influence of

music recording technologies on music will be briefly reviewed, and analysed in terms of a phenomenological strategy that reunites mind and body in a theory of *embodied* thought, and for my purposes, embodied listening. Throughout the thesis, I will often refer directly to “ears” and “the body” as a metaphor for the sense of hearing and human physical reactions; this is not an attempt to negate the factor of intellectual cognition in experience or undermine alternative investigations into the physiological operation of our senses,³ but a simple effort to reinforce the *physicality* of listening as a rich and integral part of musical experience.

³Anthony Storr’s interesting personal exploration of music integrates observations about music made by well-known figures from fields as diverse as psychology, philosophy, physiology and musicology (1992). Storr’s main interest is in the importance of musical experience as mediated through the mind, but the broad nature of his scientific claims, and his own explicit recognition of inherent bodily-arousing characteristics in music, certainly does not foreclose the possibility of examining music as a physical phenomenon.

CHAPTER II PHENOMENOLOGY

A. Prelude

At the beginning, I always felt that I could dance to the music. The steadiness of the waltz rhythm that flowed constantly from the pianist's left hand was answered by the pulse established in my feet and stomach. However, the contrasting and overarching melody of the right hand soon stole my attention: simple lines that wove in and out among the waltz pulse, pulled in accordance with its own syncopations and melodic turns. The entrance of the flute was always a gentle surprise. I found it gentle because it began as the merest whisper of colour - a shade that simultaneously grew in intensity and depth as the musical line was imperceptibly passed over to the oboe and then the clarinet; I was surprised because it signalled the slow emergence of orchestral context. While I had been lost in my perception of a wayward melody resisting its steadfast waltzing partner, I now became aware of all the other instrumental colours and melodies and rhythms that had a part in the music. The orchestra's dynamic and harmonic activity surges forward, demanding my attention and my cooperation, the waltz grows louder even as the reverberant hammering notes of the pianist's once gentle right hand insistently assails my ear; my body tenses with the music's climax and does not relax until the return of the piano's original themes. The dance partners change roles: an English horn reprises the haunting melody that had first been played by the pianist's right hand, while that hand now engages in an extended play of undulating sixteenth-note scales - all the while, the waltz continues. A flute subtly intertwines briefly with the English horn melody, recalling the initial orchestral entrance in the movement. The orchestra provides a few final comments. Finally, the pianist settles into an extended trill on the tonic E-flat. The orchestral colours subside slowly. The waltz releases me.

The above paragraph describes one of my most memorable and personal experiences of music. It occurred before I ever attended a symphony concert or received real practical or theoretical musical training, and took place in the dark and cool basement of my parents' home as I listened to Arturo Benedetti Michelangeli's recording of the

Ravel *Piano Concerto in G-minor*. I remember being transfixed by the concerto's middle movement, the *Adagio assai*. I did not forget my surroundings: my eyes followed dust motes as they floated in the shaft of sunlight coming down the stairs, the clammy cool air endemic in basements on warm summer days pressed against my skin, and I knew that I knew that the cement floor was hard and dank beneath the thin carpet on which I sat, but hearing Michelangeli play that middle movement reconfigured my bodily surroundings. The dust, the dark and low-ceilinged room, the fact that I was alone - all of these things became in some way part of my hearing, of my performance as a listener. I did not imagine myself at a live performance, or have any mental idea of what such a performance would sound or look like. Michelangeli was not in the room with me, and the ghost of Ravel did not manifest itself. I knew that I was listening to a recording, and the experience of music was transfixing.

Since that early listening experience I have received many years of musical instruction and formal education, and attended myriad concerts (including performances of the Ravel *Piano Concerto in G-minor*) in which I have experienced the "aura" of the work of art expounded by Benjamin (1968),⁴ even the basement has become carpeted, panelled

⁴Walter Benjamin specifically addresses only the visual fine arts in his classic and influential essay (1968), but his formulation of "aura" as a unique phenomenon of distance between the audience and the original work of art has been frequently and fruitfully applied to other artistic pursuits, such as musical performance. Theodor W. Adorno, who sought to redress and counter Benjamin's optimism about the loss of aura that occurs when the fine arts are mechanically reproduced, was one of the first writers to use "aura" in the context of music. In a well-known essay (Adorno 1978), Adorno compares the established conductor to "the totalitarian Führer. Like the latter, he reduces aura and organization to a common denominator" (1978, 284-85). Adorno objects to the "perfect, immaculate performance," devoid of spontaneity and aura, which he partially links to the proliferation of phonograph records.

and well-lit. Nonetheless, that experience of enthralled hearing, bodily stillness and focussed imagination remains for me an ideal of what “performative listening” (Kramer 1996, 65) is all about. It is an experience that is anchored in my hearing of the Ravel piano concerto, but is as inextricably linked with my body’s experience of the place and time of hearing as with the “objective reality” of the music itself. This physical lived aspect of musical experience - present in both live performance and recorded form - is what prompts me to investigate phenomenology as a tool that may be used to discuss music without an exclusive focus on technical aspects of pitch, structural analysis or established historical fact.

B. The Experience of the Lived Body

Phenomenology has been a major stream of philosophical thought in the twentieth century (Bartholomew 1989, 1), with Edmund Husserl (1859- 1938) and Maurice Merleau-Ponty (1908-1961) as two of its best-known proponents. The roots of phenomenological thought arose in part as a reaction against the highly influential philosophy of René Descartes (1596-1650) and the precepts of Cartesian dualism - “the thinking that separates mind from body and in the process devalues the body as mere physical substance” (Sheets-Johnstone 1992, ix). A number of recent scholars either seek to “rescue” Descartes from the more extreme conclusions that follow from a characterization of human body as mere physical object (*res extensa* as opposed to *res cogitans*), or at least develop alternate rationalist arguments upon the idealist foundations

laid by Cartesian dualism.⁵ However, even those who would argue that Descartes, as an individual philosopher, did not simply relegate the body to the realm of unconscious object, admit that the popular extreme view of Cartesian dualism has held tremendous sway in Western intellectual thought since the seventeenth century (Baker and Morris, 1996, 2-3). Leder writes that:

a certain telos toward disembodiment is an abiding strain of Western intellectual history. The Platonic emphasis on the purified soul, the Cartesian focus on the “cogito” experience, pull us toward a vision of self within which an immaterial rationality is central. The body has frequently been relegated to a secondary or oppositional role, while an incorporeal reason is valorized (1990, 3).

Put very simply, phenomenology asserts that the essence of a thing may be discovered as that thing is perceived and experienced through the body. A thing’s essence is not “a mysterious, hidden, and evanescent quality. It is simply a ‘characteristic way of being’, how a thing is ‘in principle’” (Bartholomew 1989, 6). Essence is comprised of those qualities of a thing without which the thing would cease to be what it is, for example, a sounded note would not be what it is if it did not possess qualities of pitch, duration and timbre. Whether those qualities are objectively measurable (of course, they must be *perceivable*), or whether they bear a particular subjective significance for me as I listen, does not alter the unearthing of essence. It is also important to note that phenomenology is not about simple empirical description. A detailed catalogue of all the surface facts that are noticed through one’s physical senses will not reach a thing’s essence.

⁵See Baker and Morris 1996 for an example of the former, and Nelkin 1996 and Lowe 1996 for examples of the latter.

My experience of music clearly encompasses memory, rational and emotional interpretation, social and aesthetic values, and cultural meaning; nonetheless, it is my contention that the significance of musical experience cannot be solely found in either an analysis of these “processes” of the mind, or in these processes as they are ostensibly buried within the musical object. Before all of these things, I experience music in my lived body.

A single authoritative definition of phenomenology has never been developed. However, certain formal components have usually been accepted as integral parts of phenomenological method since Husserl’s initial conception of phenomenology. I will explore some of the formal philosophical concepts, but for the most part, I will simply introduce terms as I describe the methodology and potential application of phenomenological description. In any event, my purpose is to incorporate phenomenological approaches within music scholarship , and not to provide a definitive or current updating of phenomenology as a means of arriving at philosophical truth.

Phenomenology is the study of phenomena, and a phenomenon encompasses not only the “objective” existence of an object or event, but human experience of that object or event (Clifton 1983, 9). Experience consists of both a “what” (*noema*) and a “way” (*noesis*) of experience; that is, “the noema is roughly that which consciousness is of and the noesis is the act, the mode of experiencing” (Bartholomew 1989, 15). In practice, the two are truly inseparable, for the same reason that I could not describe hearing something without speaking of a sound, or intelligibly discuss sounds with anyone who has never had

the experience of hearing.⁶ Phenomenology does not seek to place an artificial analytical barrier between these two intertwined and equal aspects of human experience, but simply tries to ensure that the potential extremes of both materialism and idealism are avoided by asserting that our interaction with the world is not wholly determined by either our pure mental perceptions of the world, or our own unyielding physical/biological characteristics. O'Donovan-Anderson neatly encapsulates these two extremes when he states that "In both cases we trade knowledge for certainty, disregarding reality and thought in turn" (1996, 3).

As developed by Husserl, phenomenology follows a distinctive methodology of description and analysis that recognizes both the "what" and the "way" of experience, and ties the identity of the thing experienced to both of these essential aspects of experience. Bartholomew breaks Husserl's methodology into four key considerations: (1) intuition, (2) determination of essence, (3) description, and (4) reduction.

Intuition is phenomenology's basic acknowledgment that human beings live their lives not just *within*, but *as* a body. As Leder writes:

Human experience is incarnated. I receive the surrounding world through my eyes, my ears, my hands. The structure of my perceptual organs shapes that which I apprehend. And it is via bodily means that I am capable of responding. . . . From the most visceral of cravings to the loftiest of artistic achievements, the body plays its formative role (1990, 1).

⁶O'Donovan-Anderson makes the point that Cartesian dualism is caught in the uncomfortable position of tying self-awareness and the nature of existence to an "embodied mind," which only has contact with the world through the senses of the body. The mind may be the only assured route to eternal truth, but the body is the intrusive and necessary conduit between reality and reason. As a result, "it begins to look as if objectivity requires us to sift from the data of sense the contribution of the body, to divide, that is, the data from the sense" (1996,2).

In my interpretation, a full phenomenological approach does not merely attempt to “reunite” the body with the mind, or carve out a place for sensorimotor perceptions within a mental understanding of the world. Rather, phenomenology should *begin* with the concept of a “Darwinian body” in which living bodies are viewed and analysed as organic wholes with integrated bodily and mental capacities.⁷ As a human being “I see, hear, and touch objects because I am in the world, and have eyes, ears, and a body. But then these objects become objects-for-me” (Clifton 1983, 8). The first consideration, intuition, is simply an acknowledgment that my awareness of the world is rooted in physical existence.

Phenomenological analysis begins, but does not end, with the individual’s immediate direct knowledge of the world as it is given to his or her perceptive faculties. Phenomenological methodology then focuses upon the second consideration, the “essence” of the thing experienced, so that the third element of “description” does not result in the mere reiteration of detailed observances mined from a particular experience. The requirement to obtain the essence of an actual object of experience is the means by which phenomenology attempts to mediate the subjectivity of individual intuition and avoid simple empirical description. Phenomenological description involves “those aspects

⁷The phrase “Darwinian bodies” was coined by Maxine Sheets-Johnstone as the title of an article wherein she asserts that Darwin’s work on evolution always recognized and acknowledged the whole animal, even though he started by observing the physical attributes of essentially unified organisms. She states: “*though analytically divisible ex post facto*, Darwin conceives the mental and the physical to be experientially and behaviorally intertwined, and as much in the act of reasoning as in the feeling of terror” (1996, 26).

of experience which are given in the experience, but which are not reducible to any single experience” (Clifton 1983, 9). As such, all of the infinite variations of incidental circumstance and personal opinion which undeniably form a part of one’s “experience” of an object are not part of the essence of the object. In my account of listening to the middle movement of Ravel’s *Piano Concerto in G-minor*, actual details about my surroundings and the value of the piece itself were not intended to comprise part of the essence of that piece of music. On the other hand, the *way* in which my experience of the concerto became integrally connected to a full sensory awareness of my privacy and my surroundings *was* intended to comprise part of the essence of the experience of listening to music.

If phenomenological description simply focussed on one individual’s detailed observations of the world *as* universal truth, then phenomenology would be open to the charges of extreme subjectivism which have been levelled at it:

The intuition of essence takes the immediate givenness [sic] of inner experience as its starting point, which it regards as unconditioned and primary, never looking into its character and preconditions, and proceeds thence to its final abstract “vision,” divorced from reality (Lukács 1973, 247).

In his criticism, Lukács recognizes that inner experience is a “starting point,” but he refuses to credit any value to the human capacity to search critically for commonality within inner experience, or acknowledge that the phenomenological concept of essence is an attempt to capture something in the human experience of an object that is not simply private and particular. The phenomenologist does not present his or her description as a

personal relative way to objective truth, but as “a truth that is relational.” While Lukács objects to phenomenology’s failure to inquire into the “character and preconditions” of intuition, the phenomenologist could equally question whether such an inquiry would leave one any less “divorced from reality,” or whether the search could ever be concluded. Indeed, the very assumption that inner experience is shaped by social and cultural preconditions that may be unearthed and examined is itself a kind of intuition - as incapable of absolute proof as any claim of primary inner experience. The unique value of phenomenology is that it accepts and builds upon:

This dynamism between truth as a goal and experience as an opening to that goal, between individual presentations and general essences, and between reflection and the unreflective, *Erlebnis* level of experience. . . The world as the object of lived experience, and the subject placed in that world, are definable only insofar as the one is present to the other (Clifton 1983,17).

It is not a question of sifting the social from the personal in an attempt to delineate reality upon the pure canvas of inner intuition. Rather, phenomenology allows me to take the stance that the social and the personal are intertwined in lived experience - ultimately the social *is* experienced personally, and intuitive description of inner experience at least allows us a starting point from which we can discern and investigate the effects of the social. Critics of phenomenology may argue that our physical perceptions are merely puppets of determining social factors in our lives. Unfortunately, I cannot place a set of headphones on my upbringing, my cultural milieu, or my social class; no matter how much these factors influence my listening, they don’t hear anything.

Husserl’s original formulation of phenomenology might have regarded the inner

experience as “unconditioned and primary,” but my application of phenomenology clearly does not necessarily disregard the existence of those social and cultural factors that shape one’s immediate and physical perception of the world. In fact, such a disregard would be especially inappropriate given the extent to which the very significance and manner of our listening to music is culturally charged; often, the social aspect of music determines even the physical context of hearing. I recognize the influence of social preconditions over inner experience by confining this paper to issues raised by how traditional Western art music is heard by listeners who have some familiarity with this repertoire (e.g., persons educated in North America or Western Europe, but not necessarily those who have received extensive formal music training). The essence of the musical experience derived from the “immediate givenness of inner experience” of these listeners may differ radically from the musical experience of human beings in many other cultures, but this does not invalidate the use of the sensorimotor impact of music as a starting point in our establishment of an essence found in the act of listening to music. Clifton alludes to these issues in his short discussion of how a native of the Borneo Highlands, a North American Caucasian child of seven, and an adult musically educated in the Western European tradition who is attending a football game, would likely all experience a Dvořák symphony in radically different ways (1983, 3-4). Clifton actually develops a workable definition of music that he uses to distinguish between a musical and a nonmusical experience; the latter evidently would not be of concern in discovering the essence of a particular piece. For my own purposes, my focus on finding the essence of listening would ideally take account of all the different ways in which Western art music is heard.

In a recent essay, Edward S. Casey also argues there is still worth to exploring the nature of “embodiment - the lived fact of experiencing the world from and in and with just *this body, my body*” (1996, 23), since the essence of human experiences is not a pure derivation of either culture or body by itself. He asserts that:

nature and culture require each other in their very extremity: culture calling for body (as a narrow place and thick entity in which to express, and sometimes to repress, its aims and demands), body calling for culture (as the indispensable scene of acknowledgment, whether in emotional abreaction, articulation in words, or other socially specific ways). Each is a limit for the other; yet each invades and pervades the other (1996, 36).

On the other hand, *by grounding itself in lived experience*, phenomenological description tries to filter out as much as possible those preconceived cultural notions which in fact may have very little to do with anyone’s actual experience. In the case of listening, the historical and social context of listening to live performances has clearly shaped how people are expected to experience Western art music, and this has in turn influenced public and academic judgements as to what is “great” Western art music. As Bartholomew notes:

if one assumes the veracity of Schenker’s theory of levels, in particular the *Ursatz*, then one seeks this out in musical structure. By this assumption one is led to hear music in a particular way (1989, 9).

While we cannot discount or minimize the historical, social and cultural influences which play a part in how we experience music, the failure to return to lived perceptual experience marks in itself a contemporary philosophical bias towards unchanging social determinism. My use of Husserl’s call for rigorous, *non-scientific* and intuitive

description seeks to avoid analyses which (1) idealize or ignore the cultural listening models of the past, (2) assume that human hearing reduces (or aspires - depending on one's personal bias) to a scientific awareness of sound as "discrete sonorous stimulations" (Bartholomew 1989, 10), and (3) take insufficient account of how changes, such as those that have been engendered by recording technology, may have affected the entirety of the experience of listening. Changes in the social processes and economic conditions of music making and hearing have clearly had tremendous effects on the "object" of musicological studies, but a further examination of only the "character and preconditions" (Lukács 1973) of a human intuition that is rooted in the body does not entirely tell us whether the *essence* of listening to music has been altered.

Reduction is Bartholomew's final consideration in phenomenological methodology, and it purports to suspend "objective reality" from analysis in a way that fosters a unique exploration of the "way" in which we experience the lived world. While phenomenological description focuses on the essence of an object or experience, it simultaneously acknowledges that "what is outside consciousness gets its sense from how it appears in experience when the object is normally experienced" (Bartholomew 1989, 12). This is, in effect the rationale behind the apparent suspension of the philosophical search for "reality"; note that phenomenology is *not* asserting that mere appearance *is* reality, but rather that the search for reality lies in attempting to understand and describe the relationship between what we experience in the world and the way in which we experience the world.

The final concept which I will introduce relates closely to the phenomenological

element of reduction. The “intentional object” of phenomenology refers to the *noema* (the “what”) of experience, and conveys the conviction of a relation between conscious experience and the object towards which consciousness is directed. That is, at any given moment human consciousness is directed towards a particular something; categories of objects are not uniformly and objectively perceived. The intended object “is not just the quantitative object, it is precisely the object as given in the phenomenological reduction” (Bartholomew 1989,15); that is, it is not the measurable sound frequencies of any particular performance of J.S. Bach’s *E-minor Flute Sonata*, but rather my “global” experience of the sonata as I consciously experience my performance of it (Bartholomew 1989,19). On the other hand, intentional objects do not equate with imagined or wished-for objects: phenomenology does not *intend* a “perfect” performance of Bach’s *E-minor Flute Sonata* into being. Any performance I give of the sonata encompasses a particular interactive use of my ears, fingers, lips, eyes, breath, memory and imagination to play music written by Bach.

Of course, the above definition raises interesting questions about “consciousness,” and how music may or may not be “intended” or even “attended” to. Even phenomenological essays may attempt to state what musical experience *should* be:

To experience a musical composition is to come into touch with (perceive) the subtle and abstract musical qualities of the work which we value, using the experiential learning which has occurred. (Hearing - merely and solely a passive gathering-in of sound densities for immediate mood gratification.) You must become what philosophers refer to as “at-one-with” the object to experience it (Motycka 1989, 184).

The ideal of losing oneself and becoming one with music has persistently recurred in

Western art music and musicology, and ties in neatly with Leder's work, which tries "to answer the question of why the body, as a ground of experience, yet tends to recede from direct experience" (1990, 1). I intend to analyse the phenomenological grounds for this ideal, and examine the impact that recording technology has had upon the intended musical experience. First, however, I will review how musicological literature has tended to disregard phenomenological experience in writing about our experience of music.

CHAPTER III MUSICOLOGY AND THE LISTENING (BUT ABSENT) BODY

Musicology has long been occupied with the vexed question of whether music can be assigned specific and concrete meaning,⁸ but irrespective of the matter of content, the sheer reality of musical performance reinforces a regard for music as the most abstract of the arts. A live musical performance consists of incorporeal sounds released into the air that demand hearing in real time. For many individuals, music is the unknown language of score notation, for others it is years of esoteric and specialized physical training, and for others it is a functional social practice or the barely noticed “non-quiet” of public places like elevators. Even among musicians and those who believe music to be an important part of their daily lives, many (if not most) are unable to listen to music in a way that

⁸Aristotle wrote that “it is not easy to identify precisely the power that music has, nor the reasons why one ought to engage in it”; nonetheless, he clearly believed that “There exist in rhythms and melodies likenesses, most close approximating to the realities, of anger and mildness, of courage and moderation and their opposites, and of all other dispositions, as the facts make clear; for our souls are altered when we hear such things” (*Politics*, 1339aII-1342b34). Gioseffo Zarlino, a noted sixteenth-century music theorist, directs that “choice of harmony and rhythm must be made in accordance with the nature of the subject matter contained in the text, in order that these things, combined with proportion, may result in music that is suited to purpose”, and writes detailed technical treatises for achieving specific kinds of harmonic expression (1968, 94). The debate over the nature of musical meaning has continued through writers from Rousseau to E.T.A. Hoffman to Susanne Langer. In recent years, the use of linguistic models and semiotic analysis in music has opened another avenue of investigation which regards music as a system of signs; for a review of musical aesthetics in semiotic terms, see chapter 1 of Monelle 1992.

allows for easy and detailed mental recall. David Sudnow recounts his experience in attempting to transcribe and learn brief stretches of jazz improvisation:

I knew the melodies only in certain broad outlines. Particularly with respect to the rapid passages, I found that, when singing along with a Charlie Parker recording, for example, I had been glossing the particularities of the notes in many of my hummings, grasping their essential shape perhaps, but not singing them with refined pitch sensitivity. It was particular notes that needed to be at hand to reproduce that stretch of music in its particularity, and the question arose: what had I in fact been listening to as a jazz fan all these years? (1978, 17)

Due to the absorbing mental difficulties of perceptual listening, recall and accurate performance, it is strikingly easy to characterize as concentrated and cerebral any activity that involves the production and reception of music. Yet even in the case of listening alone, where music may be said to have a direct impact only upon the body's sense of hearing, this still remains an intuitive lived experience *of the sensory body*. This fact has been and remains generally obscured not only in musicological writings, but in interdisciplinary studies that are concerned with the act of listening to Western art music. In fact, Western thinking, from musicological writing that builds on Walter Benjamin's discussion of the "aura" of the work of art and art's "reception in a state of distraction" (1968), to Edward T. Cone's direction to listen to "the composer's voice" (1974), has tended to idealize a listening model that actually reinforces disembodiment - a kind of rapt mental ecstasy that concentrates all of our bodies into our ears, and all of our attention on the object that is perceived through this single sense. The final step involves the complete subordination of the very fact that we have a perceiving organ in the first place; we write odes about how music makes us feel, we analyse the object, and we (re)construct the

social context of music performance and reception, but our bodies disappear.

The conceptualization of music as a pure mental experience leads to a number of interesting foundational assumptions about music. Music has been tritely and misleadingly referred to as “the international language”; usually this statement is asserted in the context of some particular piece of music which is regarded as so intrinsically great that its qualities are capable of mysteriously traversing all cultural, historical and geographic differences. The logical flaws and hegemonic assumptions inherent in the concept of music as an “international language” are fairly self-evident, but many more people could be persuaded to believe in *great* music’s power to invoke a “common human experience.” That is, no matter the differences of both individual taste and musical type, many in Western culture still believe that human beings share a common capacity for having their human imaginations, emotions and spirits stirred by *great* music - whether the particular piece listened to is a keyboard partita of Bach or a “classic” rock song by U2. I am confining the emphasis of my thesis to contemporary Western culture because I am aware of the influence of history, culture and numerous social factors on any human experience, including music,⁹ and as much as possible I wish to avoid detracting from a phenomenological focus on how we experience music.

⁹This last point is vital, and generally acknowledged to be so. The work of ethnomusicologists and anthropologists has clearly established that the Western concept of music, and the very idea of “art,” are to a large extent cultural constructions and by no means a universal lived reality in different global societies. As put by one scholar in African music: “our attitudes about what art is can influence our notions about how art works. . . . African music is not just different music but is something that is different from ‘music.’ . . . The reason why it is a mistake ‘to listen’ to African music is that African music is not set apart from its social and cultural context” (Chernoff 1979, 31, 33).

I raise this spectre of a common “human experience” of music because I believe that it is inextricably linked with the way in which Western culture and musicology has divorced the body from the idealized experience of music. Evidence for such a separation can be found in the rather odd fact that a “human experience” of music can be spoken of and discussed without any reference to whether music is being composed, played, or listened to. The physical context of all the different ways in which the human body is directly and intentionally involved with music must surely have some effect on how music is “experienced,” and yet, if music is thought of as a pure intellectual/emotional/spiritual construct, then how would we validly talk about or even acknowledge the body as it is involved in the very different functions of writing, performing or listening to music?

Of course, there are common links between the composing, playing and listening to music, and one of the most important is the recognition that the function of hearing is a vital part of all three activities. Denis Smalley, in a study of how electroacoustic music may be listened to, introduces the concept of the “indicative field” and the indicative network, to explore how “The apprehension of musical content and structure is linked to the world of experience outside the composition, not only to the wider context of auditory experience but also to non-sounding experience” (1992, 521). Indicative fields may be thought of as mechanisms that attempt to isolate the ways in which a listener’s apprehension of musical sound actually combines with non-musical facets of perceptual experience. Through empirical inquiry and observation, Smalley derives nine indicative fields: gesture, utterance, behaviour, energy, motion, object/substance, environment, vision and space. These fields overlap, are interdependent, rearrange themselves to give

prominence to one field or another, and - in conjunction with an understanding of “formal relations within a work” - determine our musical experience (1992, 550). By questioning what listeners actually perceive when they attend a musical performance, Smalley effectively advances a phenomenological model of listening behaviour, and he does so in part to address issues central to composition:

Composers (not only electroacoustic composers) often fruitfully conceive their music following processes, ideas and systems that are not perceptually determined; but the composer who ultimately refuses to confront the perceptual consequences abdicates cultural responsibility. Regrettably there is too much electroacoustic music that demonstrates a disdain for listeners’ indicative needs and the spectro-morphological means of achieving them (1992, 551).

While I do not necessarily agree with Smalley’s narrow and somewhat odd characterization of the composer’s responsibility as “cultural,” I agree with his intimation that sensorimotor perception has a foundational and integral role in each of the human experiences of music composition, performance and listening. I will therefore address how the physical experience of music has been discussed in each of these three areas of activities, though I will emphasize the activity of listening in my analysis.

The mental idealization of music is perhaps most understandable and common in connection with composition, and can only be bolstered by the popular image of such key historical and romantic composers as Beethoven. Here was a composer who composed music that is foundational in Western musical tradition *even* as he was deaf - transcribing noble sounds that he could only hear in his head once his body’s sense of hearing had been extinguished. What is often forgotten, however, is that Beethoven spent much of his early

life as an extremely accomplished pianist and practising musician. As a child, he received lessons in piano, organ, violin and viola, and developed a unique use of the pedal in the fortepiano (Robbins Landon 1992, 40, 60). Undoubtedly he would have experienced music differently once he was deaf, but even this changed experience would have been rooted in years of tactile and aural awareness. Historical anecdotes reveal how much Beethoven, even after he was completely deaf, still longed to experience music aurally, even though his sense of hearing could no longer be relied on:

‘It [a Broadwood fortepiano] is a wonderful present,’ said Beethoven looking at me, ‘and it has a beautiful tone’, he continued, turning towards the piano without taking his eyes off me. He struck a chord softly. Never will another chord pierce me to the quick with such sadness and heartbreak. He had played C major in the right hand and B natural in the bass; he looked at me steadily and repeated the false chord several times to let the mild tone of the instrument sound, and the greatest musician on earth could not hear the dissonance! (Ludwig Rellstab in Robbins Landon 1992, 224)

Furthermore, Beethoven continued to entertain performing musicians after he was deaf, and used such visual clues as a singer’s breathing and expression to judge the quality of a performance (Robbins Landon 1992, 222-24). The fact that extraordinary ability, learned technical skills, and determination can allow human beings to write music that they cannot physically hear does not inevitably lead to a conclusion that music exists in a place where the body is unnecessary, or provide evidence for a musical essence that is created and received with the mind alone.

Michael Chanan has noted that the development and use of music notation in the Western world “allowed what the composer-conductor Lukas Foss once called the very

unmusical idea of dividing what is essentially indivisible - music - into two separate processes: composition, the making of music, and performance, which is also the making of music” (Chanan 1994, 5). Given the Western intellectual tendency to analyse human experience in terms of a dichotomy of mind and body, it is hardly surprising that the process of composition assumed pure intellectual status as composers silently (or at least, privately) wrote music which could then be publicly executed by others at a distant time and place. I was an adult and experienced concert goer by the time I first saw a living composer at a performance of his work by the local symphony. I remember my initial confusion: who was this man, and why was he being applauded - what had he *done*? The fact is, composers usually aren't witnessed in their work. The time spent at a piano or with other instruments, the gathering of and experimentation with sound impressions from other musics, the squeaking pencil or clicking keys as musical ideas are notated, are all private activities. For the general public, and perhaps for composers themselves, their identity as *listeners* is so integral a part of what composers do that it is overlooked - along with all the other myriad ways in which composition *is* an experience of the lived body.

The Canadian composer David Keane has written that:

Regardless of how prepared he is to answer, the composer has always had to ask himself: “What makes a piece of music pleasurable and interesting?” Even though sociologists, philosophers, music theorists, psychophysicists, and neurologists are not ready to give a complete answer to that question, each time the composer sets his pen to paper he must proceed as though he knew the answer (1982, 324).

After a discussion of the rhythms experienced in the womb and sounds made by infants, Keane offers the surprising thought that “all or most children might also develop

considerable ability in musical composition, and consequently music listening. if the protomusical abilities of infancy were exercised and extended rather than abandoned” (1982, 328). While I agree with Keane’s implicit assertion that composers (if they desire any audience other than themselves) must experience their own music as listeners, I question his further assertion - that listening is ideally a function of developed ability. Keane believes music draws attention in one of two ways: cognition (mental interest) and sensory (pleasure). Even though he admits that the sensory cannot be separated from the cognitive in “actual experience,” he still describes the two categories as if they could be appealed to separately. For instance, “sensory music” will give less pleasure over time, while “cognitively interesting music” becomes more attractive over time. Through such a partition of the lived listening body, a circular prioritization of value is established: cognitive music becomes more valuable with time, things that grow in value over time have intrinsic lasting value, things of intrinsic lasting value are cognitively recognized. The point is that this schema has been developed by a composer who is actively attempting to understand the listening process, and who seems to have concluded that a listening experience of lasting value is primarily determined by cognitive factors. What had begun as a purported call to understand the listener has returned to the now familiar approach that simply ignores the body not only in the process of composition but in listening as well - the body has been reduced to a site of transitory sensory pleasure while true music is experienced via cognitive recognition.

Musical performance is the most obviously *physical* human experience of music. How would it be possible, one may wonder, for academic discourse to turn performed

musical activity into a pure mental experience? While few scholars have explicitly adopted a phenomenological approach in the study of music, numerous writers have written of music in a way that implicitly incorporates phenomenological principles. As might be expected, performer oriented studies often give considerable emphasis to the role of the body in the playing of music. For most genres of music, professional or semi-professional musical performance on traditional instruments necessarily encompasses hours of focussed physical practice.¹⁰ However, for many musicians, the body in itself is not thought of as the precious sensorimotor mechanism which allows music to be heard; rather it is simply a set of muscles, tendons and physiological responses which must be mastered *in order to be forgotten*, thereby allowing one's whole being to concentrate more fully on making music. Or to use phenomenological terms, despite the fact that making music is very much a physical activity, the way of making music is supposed to be entirely subordinated to the "music itself."

In fact, it is very difficult for performers to take issue with this view of the body; for practical reasons, it may even seem foolish to argue. Most musicians have experienced times when over-awareness of their fingers or throats abruptly rendered those highly trained organs incapable of smoothly executing a difficult passage. The hours of practice are in anticipation of the time when "that which is acted out, rehearsed, and

¹⁰While this statement may seem unnecessarily conditional, I just wanted to acknowledge that there are certain categories and genres of music, for example punk music, that celebrate a lack of formal training and the innovative ways of producing sound that may arise as a result, given human ingenuity. Similarly, numerous developments in computer generated music and digital instruments allow for music production that depends far less on physical human prowess.

repeated seeps into one's organismic ground. . . . Nor, because of the nature of incorporation, is it easy to excise or even recognize such habits. Over time they simply disappear from view" (Leder 1990, 32).

Musicians tend simply to accept the necessity for physical practice, and rarely question the relationship of practice to music making. A few musicians, on the other hand, are markedly forthcoming about what they think physical practice is about:

That the instrumentalist and the singer must "practice" on their instruments has bearing only on the training of the muscles involved in playing or singing, not on the process of learning the music. There are still musicians who sit at a desk or in a park, learning their score by reading it (Leinsdorf 1981, 20).

As a performing flutist, I have to question such a black and white prescription for learning and expressing music. Is the body just a "necessary evil" in music performance? I have received lessons from flutists who spoke endlessly about what I should be feeling as I play a passage; they paint lovely word pictures and images, lean close and question my passion, and then flawlessly execute the passage with all the prescribed emotion. I have also received lessons from flutists who spent long minutes explaining how I should stand, hold and transfer the balance of the flute, and place my tongue between my teeth when I articulate a note. In fact, both of these extremes of instruction have been invaluable to me at different times in my playing history. There are always those rare players who seem never to suffer any technical difficulties, and whose physical movements while playing are beautifully free of tension and fatigue. The rest of us often need more specific physical guidance than the shouted imperative to "feel the music!" On the other hand, far too

many music lessons consist solely of corrected fingerings and mechanical physical directions. I do not intend, and am not equipped, to expound on how to be the ideal flute teacher. Rather I am trying to show how the practice of playing music is of necessity a human endeavour that is rooted in and dependent upon our lived bodies, even if musical communication simultaneously encompasses the desire to transcend purely physical communication. I am not just arguing that music must take place *within* the human body and struggle to overcome the limitations of the insensate corpus, but that the music-making body is of necessity a “felt body” - one must *be* a body to make music.¹¹

David Sudnow, author of *Ways of the Hand*, an unorthodox account of learning how to improvise jazz on the piano, is one of the few writers to write explicitly about musical performance from the stance of a felt body. The author offers “a phenomenologically motivated inquiry into the nature of handwork from the standpoint of the performer. Can the body’s improvisational ways be closely described from the viewpoint of the actor, not through an introspective consciousness, but by a fine examination of concrete problems posed by the task of sustaining an orderly activity, which ‘improvisation’ certainly is?” (Sudnow 1978, xiii) His fundamental assumption takes “the ‘actor’s perspective’ as definitionally critical . . . for establishing the ‘what’ of social action, to which all accounts must be addressed” (1978, 154). Given Sudnow’s deliberately phenomenological viewpoint, it is revealing that he describes how part of the lived experience of jazz music-making is a kind of alienation from one’s own body parts.

¹¹This point is uniquely illustrated in a short story by speculative fiction writer Orson Scott Card (1981), in which a musical prodigy cannot obey the dictum to give up music, with rather horrific and oddly inevitable consequences for his body.

While he was struggling to negotiate the rapid chord changes of jazz, he discovered that his “right hand had absolutely nothing to say in this language. . . . The hand had to be motivated to particular next keys to depress, and when there was nowhere for it to go it became totally immobilized, stumbled around, and between ‘me’ and ‘it’ there was a rather alienated relationship.” Once again, the intimation that the inner self makes music while the outer body must be disciplined to achieve it - the opposition of mind and body - makes its way into musical discussion.

Between professional performers and the listening audience there is of course a considerable gap of task and intention. When the role of music in the lives of listeners is written about, even the vestige of a phenomenological approach noted in performance and playing oriented studies is generally absent. It is assumed somehow that a good listener doesn’t really need his or her body. As described in one recent work that purports to examine issues of common interest to performers and listeners: “it must be that for most people the performer is the embodiment of music. . . . and it is often argued that music recorded in fact brings greater numbers of people to hear, to watch, to savour in every way the ‘real thing’” (Dunsby 1995, 4). Dunsby raises a very important connection - the idea that for the listener at a live performance, it is easier to forget their own bodies because music is “embodied” in the performer: could it be that listeners can forget their own bodies because they are given the alternative of identifying with the corpus of the performer(s), even while the performer is encouraged to submerge his own body and identity in “the music”? Such a thought seems to have occurred to musicians who have left active performance. Eisenberg received the following answer when he questioned a

friend on her current listening after she had stopped studying piano:

“My musical life then was playing the piano; my sex life was listening to music. It always sublimated something.” She coughed delicately. “But that really did change when I stopped playing. I actually think I participate when I listen. I think it’s vicarious performance (1987, 174).

For the active performer, there are practical, perhaps psychological, reasons to ignore certain aspects of the bodily experience of a performance (i.e., need to concentrate on the physical and creative aspects of playing music), but for listeners, why is discussion of one’s physiological responses to music in such seeming poor taste?

The well-known musicologist, Edward T. Cone, has written extensively on the subject of listening, and performer and listener identification, in Western art music. For Cone, all music is dramatic, and every composition is “an utterance” that is itself a complete communication of the composer; within this model, the performer “is a living personification of that spokesman - . . . of the mind whose experience the music is” (1974, 5). The integrity of the communication is preserved when “The good musician immerses himself so completely in the flow of the music that, for the duration of the performance, his own experience becomes identical with the course of the music” (1974, 127). Cone is not asserting that every piece of music has a specific programmatic content, but that pieces have an inherent imaginative life arising from the interaction of its musical agents (i.e., musical line, instrumental colour, formal progression, motive, etc.). Identification with this life, this “musical persona,” “underlies all valid performance and all intelligent listening. I mean . . . an active participation in the life of the music by following its progress, attentively and imaginatively, through the course of one’s own thoughts, and by

adapting the tempo and direction of one's own psychic energies to the tempo and direction of the music" (1974, 118). Within Cone's theory, there is simply *no room* to have one's own lived experience. In phenomenological terms, he requires that all of one's attention should be focussed upon the what of experience, and the way of experience is treated like certain bodily functions - if it cannot be ignored then it should at least never be the topic of polite (or learned) conversation. In his writing, Cone clearly acknowledges that listening evokes a human response that involves the body:

The listener knows equally well that he (the listener) is not producing the music; yet it is not always easy for him to forgo that privilege entirely. Hence he may hum, or beat time, or make other physical gestures that simulate actual participation in the performance. Most sophisticated music lovers, however, frankly recognize the limitations of their roles and sublimate their desires for physical activity. At the same time, an imaginary physical involvement underlies the listener's successful identification with the musical persona. For this reason the visual stimulation of watching a performance is important, for observation of the physical gestures of the players can facilitate the empathetic reactions of the auditors to the symbolic gestures of the music (1974, 137).

By stressing the importance of the visual dimension of a live performance, Cone lends credence to the supposition that the performer's body helps the listener to relinquish his own embodiment of the music he is experiencing. According to Cone, the listener's physical responses are prompted by a surface desire to participate in performance, and are only of value in so far as they somehow prompt a visceral connection with the musical persona itself. It therefore follows that there is a *correct* way to listen and a *real* musical content, and physical responses can help or hinder one in the process of aural discovery. Successful listening requires mental discipline, imagination and a body willing to "go along

for the ride”; good works of music will reward the listener with a vital emotional intellectual and spiritual experience. I wonder, however, if the body in this listening model is not simply a hostage of educated hindsight, wherein the individual’s lived experience is dictated by an academic listening tradition dismissive of phenomenological analysis. What happens then, when listening circumstances dramatically alter and live performances are no longer the normal mode of how one listens to music? How, and why, should Cone’s listening model be adhered to?

Suzanne Cusick has also explored the idea of losing one’s body in an essay that begins with her imagining herself into the audience of a recital by Jessye Norman of Schumann’s *Frauenliebe und -leben*. She writes:

I expect to replicate her subordination of *persona*, her disappearing Self, and I expect to do it as part of my performance in the recital I imagine. Indeed, I will perform the disappearing Self much more obviously: I will be silent; I will sit still, in semi-darkness; I will become “all ears,” by which I mean I will focus all my bodily awareness on my experience of sound, and will let my consciousness be entirely filled with “the music itself.” If, somehow, both Norman and I disappear, I will remember the performance we shared as . . . as ecstasy.

Because I *think* I have become “all ears,” I will feel free to ignore the fact that my ecstasy may also have come from erotic intimacy with Norman’s body and voice, from breathing when she breathes, from feeling the vibrations of her very bones in my own. I will feel free, too, to ignore the scopophilic power I acquire from being in the dark. One result of the ideology that shapes what I will be willing to describe in my experience will be, then, an erasure of the deeply erotic nature of musical performance - this shared merging and submerging of Selves into an all-encompassing, all-powerful higher reality that I will call “the music itself” (1994a, 84-85).

Cusick examines how performers and listeners in Western art music have been traditionally taught to “disappear,” in order to bring the music or “the composer’s voice”

to its full expression. She goes on to raise the possibility that such traditional strategies of disappearance always incorporate elements of hegemonic gender roles, and advocates a model of “resistant performance.” Jessye Norman’s recorded performance of *Frauenliebe und -leben* is then analysed as an example of just such a resistant performance.

Regardless of how convincing I find the analysis of Norman’s actual recording, Cusick’s descriptions of her experience as a listener rings with a certain authenticity for me, as I believe it does for anyone who has ever been so focussed upon listening to a musical work that his or her body does truly seem to disappear. This lack of conscious awareness of one’s own body does not, however, necessarily indicate that phenomenological analysis is incorrect or irrelevant, and that we really *are* only the sum of our mental perceptions. Leder’s analysis of human experience actually asserts that the apparent absence of one’s body is in fact inherent in the experience - the essence - of extended deep concentration; we are commonly least aware of our bodies at the very time when we are most acutely using our bodily senses. Leder chooses the term “*ecstasis*” to capture the operation of the lived body whose very nature “is to project outward from its place of standing” (1990, 21-22). Focal disappearance captures the concept that no matter how much we concentrate on the use of the particular sensorimotor organ from which perception is directed towards an object, we cannot perceive the organ in its work: the ear cannot hear itself hearing. Similarly, regardless of how we focus on the use of one sense at any given time, other human capacities are clearly operating in support. For instance, at a live musical performance, we may be so enthralled with the music that we not only forget our ears as they listen, but also our neck muscles supporting our head, our

eyes as they gaze on the performers and the spine that supports us upright in our seats: this is the background disappearance of the body.

Leder's work develops a highly complex and dynamic model of "corporeal disappearance," one in which conscious awareness of one's surface body is determined by various factors: (i) the inverse relationship of focal and background disappearance (i.e., if I am listening intently I use my ears focally and lose conscious awareness of them; my ears cannot *simultaneously* assume a background role with regard to another activity, no matter how much one is enamoured of the capacity for "multi-tasking"); (ii) cultural and individual tendencies to habitually associate different body parts with different modes of disappearance (i.e., ears will more frequently assume a focal role than the back of one's neck); (iii) the body's dynamic capacity to acquire new skills and habits, thereby assigning new roles and capacities to its "sensorimotor repertoire." This last factor is dubbed "incorporation" by Leder, who examines skill acquisition as a corporeal transformation. Building on his theory that "absence lies at the heart of the lived body," he notes that the more successful we become at using a new skill, the less we notice the actual use of our body in its exercise of the skill; the skill becomes incorporated within the body's focal disappearance. "Whereas in the stage of learning I act *to* the skill qua thematized goal, in mastery it becomes that *from* which I operate upon the world." (1990, 32) Leder also observes that a particular skill can equally be incorporated within the body's background disappearance; "put out of play" while the body is engaged in other activities. However, even when a given skill is not actively engaged, so that it is simply in the mode of background disappearance, *it still exerts a transformative influence on how the body*

perceives and interacts with the world. Leder discusses learning how to swim, and claims that even on a cold day when he chooses not to swim, “The lake outside my window still looks different than in my preswimming days, when it could not be crossed and offered no access” (1990, 32).

I have discussed Leder’s theory of the absent lived body in detail because it serves as a remarkably apt means of understanding the model of listening to Western art music advocated by Cone and resisted by Cusick above. The whole notion of a disappearing self accords with the concept of focal disappearance: as a listener concentrates on what she is hearing, she not only forgets about her sense of hearing, the primary sense in use, but also the rest of her sensorimotor capacities and potentials. At least, this is the model, the *skill*, of listening which is taught in the Western art music tradition. As Leder emphasizes, however, human beings cannot extend their concentrated perception *to* something without having a bodily basis *from* which to project perception. While losing oneself in “the music itself” is based upon a common aspect of lived “absent” experience, the traditional listening model fails to take account of the dynamic shifting nature of corporeal disappearance. And in fact, Cusick makes a vitally important point when she describes how listening at a live public performance may in fact be an erotic sensorimotor experience and not merely a “pure” focal activity of hearing. Music takes place over time, and the absent body need not, and probably will not, remain absent in the same ways throughout. While I do not object to the Western art music tradition of emphasizing listening that is concentrated upon the musical object, I do object to the exclusivity of this model, the subsequent dismissal of the *present* body, and a resultant analytical stance that

ranks formal academic recognition far above lived musical experience. Furthermore, as we exercise the skill of listening, we learn how to perceive the object - music in the case of listening - in certain prescribed ways. We engage in a kind of circular self-reinforcement that measures "great" music according to one particular model of listening.

Phenomenology, in asserting that the musical experience consists of both a *what* and a *way* of listening, forces musicology to consider not only the musical object - which may take such forms as a notated score, a live performance, or a recorded compact disc - but also the *way* in which the musical object is experienced; in the case of the kinds of forms here described, the way of experience is in fact radically different as long as one does not equate the absent body with an irretrievable or unmentionable body.

In the face of musicology's idealization of incorporeal disappearance when listening, I am hardly surprised that one of the scholars who has taken greatest note of the body in musical experience is a writer who is not a professional musician, theorist or musicologist. Roland Barthes explores the relationship of the body and music - the way of musical experience - in a series of thoughtful essays. As an obvious music lover and amateur pianist and singer, Barthes writes:

There are two musics (or so I've always thought): one you listen to, one you play. . . . The music you play depends not so much on an auditive as on a manual (hence much more sensuous) activity; it is the music you or I can play, alone or among friends, with no audience but its participants (i.e., with no risk of theater, no hysterical temptation); it is a muscular music; in it the auditive sense has only a degree of sanction: as if the body was listening, not the "soul"; this music is not played "by heart"; confronting the keyboard or the music stand, the body proposes, leads, coordinates - the body itself must transcribe what it reads: it fabricates sound and sense: it is the scriptor, not the receiver; the decoder (1985c, 261).

Barthes distinguishes between the musical activities of playing and listening to music, and he does so by recognizing the difference in the essential role of the human body in the lived experience of these two activities. The rarity of his observation could be explained by the fact that he states what is ridiculously obvious; alternatively, its rarity could be traced to an endemic conception of music as “the composer’s voice” or a powerful experience of “losing oneself” to a pure non-corporeal experience. The recognition, the very categorization, of “two musics” deflects attention from the object of music in terms of its pitches, structural analysis and cultural associations, and focuses it on how music exists in human practice.

Along with making this distinction between playing and listening, Barthes has addressed the issue of listening:

Hearing is a physiological phenomenon; *listening* is a psychological act. It is possible to describe the physical conditions of hearing (its mechanisms) by recourse to acoustics and to the physiology of the ear; but listening cannot be defined only by its object or, one might say, by its goal (Barthes and Havas 1985, 245).

Barthes interprets the listener’s body as the potential, but not the only, site of musical meaning. When he writes that “All romantic music, whether vocal or instrumental, utters this song of the natural body: it is a music which has a meaning only if I can always sing it, in myself, with my body . . . *to sing*, in the romantic sense, is this: fantasmatically to enjoy my unified body” (1985e, 288), he refers to a particular time period and genre of music. As such, Barthes clearly ties his own experiences to specific musical objects. Even so, he comes closer to incorporating a phenomenological approach than many musicologists of

his time. The fascinating and difficult uniqueness of Barthes's writing on music lies in his refusal to adopt shallow dichotomies of mind vs. body, body vs. culture, experience vs. cognition. He maintains that "true listening space is, so to speak, the interior of the head, of *my head*, listening to it I sing the lied with myself, for myself" (1985e, 288). However, Barthes acknowledges - even celebrates - an acute awareness of and longing for the sheer physicality of musical experience. In one well-known essay (1985a), Barthes gives a highly personal account of the enjoyment that he derives from listening to singing. He identifies a "friction" between music and the "language" of romantic lied, and language is distinguished from the actual or intended "message" of a particular song, as well as its dramatic potential and its expressive power. Instead, Barthes writes that:

The "grain" is the body in the singing voice, in the writing hand, in the performing limb. If I perceive the "grain" of this music, and if I attribute to this "grain" a theoretical value (this is the assumption of the text in the work), I cannot help making a new scheme of evaluation for myself, individual no doubt, since I am determined to listen to my relation to the body of someone who is singing or playing and since that relation is an erotic one, but not at all "subjective" (it is not the psychological "subject" in me who listens; the enjoyment that subject seeks is not going to reinforce him - to express him - but on the contrary will destroy him) (1985a, 276).

When Roland Barthes writes on music, he does so with a phenomenological spirit, even if he does not strictly employ the letter of the methodology. He does not just analyse sensory observations to come up with a "pure" intellectual understanding of either a musical object or a cultural process; rather his conception of every aspect of musical experience - whether writing, playing or listening to music - includes within the inextricable factor of his *present* body. In another essay (1985d), Barthes explains that

when he listens to Schumann's *Kreiseriana* (op. 16; 1838), he actually does not hear notes or a meaning or a structure. He hears "what beats in the body, what beats the body, or better: I hear this body that beats" (1985d, 299). Within this short essay, Barthes is provocatively ambiguous about his use of the word "body", allowing him to deliberately elide several manifestations of "body." He describes how he hears Schumann's body engaged in different activities with each variation of the *Kreiseriana*; he writes with disdain of the modern virtuoso's "mediocre body, trained, streamlined by years of Conservatory or career, or more simply by the interpreter's insignificance, his indifference"; finally he refers to the struggle to write about the musical figures of the body since "As body (as *my* body), the musical text is riddled with losses" (1985d, 303, 308). Barthes claims that "there is a site of the musical text where every distinction between composer, interpreter, and auditor is abolished" (1985d, 303). Even though Barthes obviously places interpretive and experiential importance on the body in musical experience, I remain unclear ultimately as to whether Barthes has not simply constructed an alternative metaphor that is different in name, but not kind, than Cone's vision: *the composer's body* - wherein the listening process involves far more than the disembodied reception of the composer's musical imagination, but still only incorporates the listener's body into musical experience in a narrow and metaphorically reliant way.

Among the many scholars who have interpreted Barthes, Michael Chanan has specifically chosen to use Barthes' phrase *musica practica* as a key for analysing musical experience. According to Chanan, *musica practica* is "an ever-present form of musical knowledge which takes on historical and social guises, but still remains the essential

feature of the way music is transmitted from generation to generation” (1994, 28). Any concept of musical transmission immediately raises issues of both broadcast/production and reception, but Chanan seems curiously ambivalent about the inclusion of the listener’s body within *musica practica*. When he describes the listener as a “compliant consumer,” reduced to “passive reception instead of active listening” (1994, 29), it is unclear whether he counts either reception or listening as forms of *musica practica*. His account of the “profoundly passive” screaming teen-agers at a Beatles concert who hear bodily “in a different sense: with exposed nerves and a raw skin,” and description of “our nerves responding not as conductors along our body, the resonator, but as if they were merely the relays of conditioned reflex,” intimate that these examples of the “mass audience” listening experience are removed from *musica practica*, despite the broadness of his own interpretation of the term (1994, 30). Furthermore, by characterizing *musica practica* as “the form that musical knowledge takes directly from musical practice” (1994, 28), he continues to divide human experience into knowledge and practice, mind and body. When he traces the transformation of Western *musica practica* to the spread of notation (1994, 165) and its cultural and economic impact, he implicitly asserts that *musica practica* - despite its manifestation through the body - is socially determined and intellectually understood. For Chanan, deaf composers and performers are a paradox made possible not because of “notation itself but the conceptual space it creates on which this paradox depends, for this conceptual space is internalized by the musicians’s inner ear” (1994, 58); but where is the paradox in a musician who cannot hear unless listening itself is an inextricable part of *musica practica*? When an actual physical incapacity affects the

complicated tangle of sense and intellect involved in the process of musical listening, surely the remediation cannot wholly be found in the simplistic idea of “internalized” musical space - mind conquering body, though this is precisely what Chanan seems to suggest.

Chanan makes an early observation about recording technology and the complicity of the contemporary commercial recording industry:

In driving out the amateur, the whole vast modern commercial apparatus of music conspires to reduce the listener to the condition of compliant consumer, and thus to induce passive reception instead of active listening. . . . The end result of the predominance and ubiquity of radio, records and thousand-pound hi-fi to the cheapest ‘walkman’, is that music becomes literally disembodied - in a word, the negation of *musica practica* (1994, 30).

Unfortunately, this intriguing suggestion of disembodiment is left unexplained: how has music, as either an object or a process, become disembodied? What *is* the corpus of music? And if *musica practica* is knowledge taken from practice, how has it been negated by recording technology unless listening is itself a kind of practice and a musical experience in its own right? I applaud Chanan’s juxtaposition of recording technology, musical experience and disembodiment within his analysis of music as a social process, but disagree with the easy conclusions that he reaches.

Richard Leppert is another author who clearly takes account of the body in his approach to the analysis of music as an imbedded social practice. In an essay that examines music’s cultural significance via the visual depiction of musical activity, Leppert asserts that “musical discourse necessarily both precedes and exceeds the semantic

quotient of any particular musical text" (1993, 17). He then states that:

The semantic content of music - its discursive "argument" - is never solely about its sound and the act of hearing. It is instead about the complex relations between sight and hearing as these are registered and as they mediate the entire experience of being. That experience is physical; intellectual, in the broad meaning of the word; and spiritual, though hardly restricted to the religious or the mystical. But it is especially to be understood as the result of mediations between the ear and the eye. The sonic landscape is peopled and hence interactive. It is external to the human subject yet internalized by its sight and sound (1993, 18).

Leppert's acknowledgement of the human body in musical experience is both rare and suggestive. Music is understood as subjective, interactive and grounded in human sensory perception. The importance of sight in musical experience has traditionally been given little attention in musicological discussions of listening. While Cone acknowledges sight as an important component of musical expression, he clearly does not attach any independent or irreplaceable experiential value to the visual aspects of a musical work's performance:

The physical conditions entailed by the performance of a work are an essential constituent of its expressive content. Recordings and broadcasts thus depend to a large extent on the hearer's ability and willingness to infer these conditions from prior knowledge and from audible cues (1974, 125).

For Cone, the eyes do not receive anything in a musical performance that cannot be inferred from the recorded object. The dramatic physical gesture, the unified nods of the ensemble, the expansive breath, and the dazzle of stage lights are of equally little consequence in Cone's musical experience. Rather, visual observances are simply treated as helpful hints for achieving a mental understanding of music's structural and expressive

inner relationships. Cusick, on the other hand, describes in detail the “scopophilic power” of sight within the musical experience of listening to a live performance. For myself, as for most people I suspect, it would not be difficult to recall a musical performance in which the musicians’ physical appearances and motions either added to or detracted from the purely aural impressions received, and having listened to live musical performances in foyers and off-stage, I know how curious I may become about all the visual movements suggested by what I hear; this is especially true if I can’t identify or don’t know the method of production of the sounds that I hear. Furthermore, performers’ own commitment to the music and the performance are made evident visually in a way that can influence how much I will commit myself to listening and understanding the music that I hear.

In a section of the essay entitled “Contemplation and the Body,” Leppert expands on some of the issues raised by Cusick:

The problematics of contemplation, a “mental” activity, emerge the moment mind intersects with body. The etiquette of “contemplation” is, before anything else, a controlling of the body in time, a working against the body, whether self-imposed or imposed by others (like parents who discipline their squirming children). And it is an etiquette that turns music from an inherently participatory activity into a passive one in which the listener maintains physical stasis by exerting the cultural force of will against the body’s desires. The auditor may move toes in time to the beat but not hum, stomp feet, sway the torso, or bob the head: bodily reaction to music in the concert hall must be neither audible nor visible. To give oneself over to any of these reactions invites rebuke (1993, 25).

Leppert makes the important point that the distinctions between external enforcement and the individual’s own conscious acts of will become increasingly blurred as particular

physical practices are socially proscribed and culturally practised. Over time, “a socially required passivity of reception becomes a simulacrum of the performance itself. . . Music in this guise acts as a sonic surveillance on the body, holding it captive to contemplation. . . whether the auditor actually contemplates is perfectly irrelevant to the demand” (1993, 25).

While Leppert’s argument certainly accords with my own understanding of how academic practice has presented musical experience as a mental activity removed from the body, I would raise the additional point that incidental rapt musical attention may *also* operate in a way that places the body into a passive and un-self-conscious state. Musical experience, in the context of a live performance, may involve hearing, vision and perhaps even a visceral sense of touch (i.e., rumbling bass beats) as has been described by Cusick or Chanan, but our conscious awareness of these sensorimotor operations will dissipate the more intently we use them. This, in fact, is the phenomenological working of Leder’s ecstatic body - the body whose organs and senses are constantly engaged in focal and background disappearance as we focus upon various human activities. My point in raising Leder’s analysis of the ecstatic body is not to deny the influence of cultural and social hegemonic practices in Western art music as performed and listened to, but to place listening within an entire gamut of human perceptual behaviour. The way in which human beings listen to musical objects is deeply, but not wholly, shaped by social and cultural factors and changes in the musical object; there is also the frequently overlooked fact that recording technology itself has had a direct and irrevocable impact on the physical context of the listening experience. I submit that the endorsement of ideal listening models, such

as a focus on the composer's voice of Cone, is not only a matter of hegemonic social practice or the preservation of a restrictive canon of musical objects, but also a utopian ideal that has been first enabled, then superseded, by technological developments and altered listening realities.

Rather ironically, Leppert's focus on the importance of vision for the interpretation of musical experience is rather anachronistic in an age of reproduced musics. One of his reasons for concentrating on visual representations rather than written eyewitness accounts of the sight and sound of musical performance was a desire to avoid the mental translation of visual and aural experience into linguistic images and written language. According to Leppert, painting "incorporates the way of hearing: the artist must produce images in such a way that their meanings will be congruent with those produced by sight and sound together in the lived experience of the original and intended viewer" (1993, xxi). In other words, sight is said to be a medium which captures, expresses and receives musical experience more directly than language; in large part because the "three-dimensional and sonoric world" at least retains two-dimensions in the medium of visual art, and the mediation of the written word is avoided. Leppert further argues that the "visual code functions through the human body in its efforts to produce and receive music. When people hear a musical performance, they see it as an embodied activity. . . . Visual representation in effect encapsulates more or less all of the embodied activity" (1993, xxii). Regardless of the fact that the above rationale is inevitably undermined by the fact that he must at least "process" his own insights through the medium of written language, his clear siting of musical experience within the sensing and sensual body remains

promising.

Sound as sight, sight as discourse, discourse as meaning: while Leppert's basic premise incorporates a phenomenological approach that explicitly acknowledges musical experience as an embodied activity, his method for extracting social meaning from artistic depictions of the musical body at times collapses musical experience into a mere exercise for finding visual symbols. With his analysis of Fernand Khnopff's painting, *Listening to Schumann* (1883), Leppert affirms "a social experience of the hierarchy of senses that came into being with the hegemony of typographic culture and that continues to ground the modern subject" (1987, 178). In the painting, a woman is seated in a bourgeois domestic setting. A piano and a pianist's playing right hand is seen at the left of the painting, and the seated central figure is a woman with her back to the piano, her eyes and lower face obscured by her raised hand. For Leppert, the painting is a double denial of music as an embodied experience: first, "the painting informs us that its subject is sonority, and it tells us what we should hear while looking" (1994, 232) - but we can only see, and not hear, the effects of the music; second, the woman's averted gaze shows us someone who is in effect denying the effects of music - "The averted eyes of the painting's listener register the horror of the body, and a plea for something that cannot - ought not - be: Schumann without loving, Schumann *qua* thought" (1993, 233). My problem with this analysis is its virtual equation of musical experience with sight. Not seeing is *not* necessarily the same as not hearing.

Leppert contrasts Khnopff's painting with his reading of Barthe's ideas "about the body, the erotic, the sensual; the music of Schumann is for him *relational*" (1993, 232).

But Barthes was not writing of a simple relationship between vision and hearing, or the performer's body and the listener's body. Rather the primary relationships occurred in the complex interactions between a composer, a performer and a listener's body, mind and imagination. Certainly, Barthes did not partition the human being so as to give a leading role to any particular sense. Perhaps, as Leppert maintains, the painted listener is in fact denying music by reducing herself to her aural faculties. On the other hand, Leder's depiction of lived experience allows me to surmise an alternate explanation: an embodied musical experience so intense that even the listener's vision is engaged in background disappearance, even as her ears become the sole site of focal disappearance. Since Knopff is patently restricted to appealing to our visual sense, he allows his viewers to see something of the musician that his listener has allowed to slip into the background, but the fact that Knopff does not depict any more of the pianist does not necessarily mean that the central listener is refuting music experience as an embodied practice. Similarly, Leppert's point that the pianist "has no ears for us to see him hearing" seems specious; how does the mere fact of portraying a pair of ears allow one to *see* another hearing, and how would a painted set of ears succeed in giving music the body that "proposes, leads, coordinates" described by Barthes? Granted, Knopff could well have been motivated by a desire to depict rigid self-imposed self-control of the body over time, in which case it is not difficult to agree with Leppert that the woman in the painting symbolizes a denial of the body in musical experience. If, however, Knopff wished to depict a Romantic ideal of music as a transcendent experience that engages the listener's ears so profoundly that she willingly abandons her familiar domestic setting, then the woman in the painting

symbolizes a somewhat more ambivalent interpretation of musical experience.

Furthermore, Leppert's analysis of *Listening to Schumann*, even if it is appropriate to the pre-sound reproduction era, is certainly not necessarily true today. Could any listener be accused of denying the body simply because he is seated with his chair turned away from the stereo speakers, or she is gazing out of the window rather than at the flashing compact disc laser?

I take issue not with the centrality of sight in Leppert's analysis of musical experience, but his seeming assertion that sight is *necessary* not just for the depiction of musical experience, but for proper musical embodiment itself. This model of musical listening ultimately is as constricting as Cone's traditional musicological approach, and leaves little room for understanding the changes in listening experience which have been engendered through the invention of sound reproduction. In the next chapter, I shall examine more closely how recording technologies intersect with traditional and developing ideas of embodiment within musical experience.

CHAPTER IV THE PHENOMENOLOGICAL IMPACT OF RECORDING TECHNOLOGY

A. Recording Technology in History

The invention of the phonograph was officially announced and patented by Thomas Edison in 1877, but the basic scientific processes involved in the recording of sound on physical objects had already been discovered by various individuals: in 1807, Thomas Young created physical impressions of sound via a sharp metal stylus that traced vibrating aural waveforms onto a revolving wax-coated cylinder; in 1856, Leon Scott de Martinville's "phonautograph" cut grooves onto a lampblack cylinder through the use of a diaphragm and horn that could pick up acoustic vibrations directly from the air; Alexander Graham Bell built a device in 1874 that traced sound wave patterns through a stylus' sympathetic vibration with a corpse's ear attached to a metal horn (Chanan 1995, 23); finally, in 1877, Edison and Charles Cros independently discovered the means for preserving the stylus' tracings on lampblack cylinders so as to allow playback of the preserved sound impressions (Dellaira 1991, 3). The term "phonograph" was first used by Cros, but Edison, who was working to discover essentially a telephone message machine, was the first to patent and build an actual working prototype of a phonograph (Hamm 1975, 254).

Edison published an article about his new invention in the *North American Review*

in 1878, and listed a number of suggested uses for the phonograph. Almost every one of Edison's ten suggested uses concern preserving the style and substance of spoken human language - the dictation of letters, recording family sayings and voices, teaching elocution, preserving languages, capturing educational lectures for later reference, and recording telephone messages. As for music, Edison simply noted that it could be reproduced, and recorded for "music-boxes and toys" (Chanan 1995, 3). Even though music was among the first aural phenomena to be recorded (specifically, two versions of "Yankee Doodle" played by cornettist Jules Levy (Hamm 1975, 254)), Edison's failure to recognize the recording cylinder's entertainment potential as a means of reproducing music was understandable given "the very limited quality of the sound of which, like the telephone, it was initially capable. The sounds we are used to today are in another class" (Chanan 1995, 3). I take this as indicating that the perceptual experience of listening to a recording made on a cylinder must have differed markedly from the experience of listening to a live musical performance, even if one only has regard to the sense of hearing alone. Edison's original cylinder was made out of tinfoil, and even after its replacement with the wax cylinder, the up-and down grooves were quickly worn after only a few play backs, resulting in much surface noise. The mechanical etching of grooves, with a stylus attached to a diaphragm that moved according to sound vibrations directed into a horn, managed to catch only a narrow band of mid-range sound frequencies. As well, cylinders were initially capable of recording only about two minutes of music per cylinder; the playback of longer pieces of music therefore required multiple cylinders and frequent interruptions for the changing of cylinders (Hamm 1975, 256).

The aural difference between a piece of music recorded on a cylinder, and the same piece heard in live or domestic amateur performance, should therefore have been immediately apparent. Of course, it can always be argued that at the turn of the twentieth-century, the sheer novelty of playback capacity would have prompted unsophisticated and amazed listeners to simply equate all their listening experiences, as long as the piece of music that was heard was recognizable and familiar. In other words, the listener's own memory and imagination would simply have ignored surface noises, and fill in the wider frequencies perceivable in live performance, no matter what their ears actually heard when listening to the cylinder; recording companies and other commercial interests in the early twentieth century certainly did their best to encourage such an audience response.¹² Alternatively, it could be argued that uneducated listeners were so unused to engaging in concentrated listening during live performances that they were actually unable to detect the inferior quality of cylinder sound recordings. While it is impossible to prove conclusively that the above hearing processes didn't occur, I submit that both the very novelty of musical recording and playback, and the actual physical experience of operating

¹²The marketing of the Edison phonograph at the turn of the century has recently been examined by Emily Thompson (1995), who traces the "tone test" - a recital that combined live performance by a well-known performer and recordings of that performer. She concludes that:

the problem of determining whether or not audiences truly mistook the record for the artist is of limited significance. While people may or may not have agreed with the officially proclaimed outcome, it is clear that tone tests provided listeners with a tool, a resource that enabled them to transform their conception of what constituted "real music" to include phonographic reproductions (1995, 160).

and hearing a phonograph, would have made it extremely difficult for anyone listening to music on a cylinder to confuse that experience with the more familiar one of hearing music in live performance, no matter how effective the commercial claims of perfect aural fidelity. The nineteenth-century listener would have been overwhelmingly aware of listening to a mechanical device in the otherwise familiar physical context of a domestic home or public space, purchasing and holding solid cylinders, cranking the phonograph handle. And these factors of sound reproduction remain phenomenologically relevant for today's listeners, even after the tremendous advances of quality that have occurred in sound reproduction over the last century.

In fact, other technological advances in music recording and reproduction quality have continued to have significant effects on the phenomenological experience of listening. In addition to the cylinder's poor sound quality, the other key technological lack that had inhibited the initial growth of a commercial music recording industry "was that every recording was an original: there was no means of mass replication. . . In short, in its original form the invention that promised the repeatable recording but not its replication was able to capture the imagination of a potential market but not to satisfy it" (Chanan 1995, 5). Mass production was not commercially practicable until Emile Berliner's 1887 patent of a duplication method that chemically etched recorded vibrations onto a metal disc rather than a cylinder. The disc was then used to produce a reverse metal master disc that would be used to stamp out copies (Chanan 1995, 27). By 1904, the 12 inch, 78-rpm disc offered four minutes of music per side, but the disc's 168-2000 Hz. acoustic range (compare this with the 20-20,000 Hz. range of modern long-playing records (LPs) before

they themselves were overtaken by compact discs (CDs)) was still a handicap to sound quality, especially given the acoustic complexities of classical music. In 1925, the incorporation of electricity - microphones in recording and electromagnetic pickup and speaker systems for playback - greatly enhanced what had been heretofore purely mechanical processes. Wartime technology introduced magnetic tape and higher frequency bands that were later commercially exploited. In 1948, the development of inexpensive 33 1/3-rpm LPs improved sound quality further while also dramatically increasing the disc's sound storage capability; one LP could now record the same length of music as five 78-rpm discs. Finally, the LP was given "greater apparent physical dimension of sound" (Hamm 1975, 260) with the introduction of two-channel stereo sound in the late 1950s, and quadrophonic sound in the early 70s.¹³

In the last decade, LPs have been essentially replaced by CDs as the chosen original medium for recorded music. CDs are cut and played back through the use of miniature lasers, and boast an increased acoustical range, minimal surface noise, considerable resistance to wear and tear, the convenience of low maintenance, and a smaller, lighter size. These advantages have easily conquered objections that "the difference in the quality of reproduction, if compared with the difference between acoustic and electrical recording, is minimal. . . and discerning musicians tend to complain that the sound is too analytic and clinical" (Chanan 1995, 167). Regardless of such unfavourable

¹³For a far more detailed history of the development of music recording, see Hamm 1975 and Chanan 1995. Hamm's account relates colourful details about recording artists and particular pieces of recorded music, while Chanan attempts to place recording history within a postmodern economic and cultural context.

opinions, the advent of the CD is generally hailed as a favourable technological advance. I personally remember joyfully giving up the labourious practice of applying record preservative to new LPs, along with the rituals of cleaning the disc, brushing the playing stylus and firing the anti-static gun before playing any side of a favourite LP. Evan Eisenberg, after recalling similar practices from his record-playing days, observes:

All this sounds toilsome but soon comes as naturally as laying phylacteries, and then one can hardly bear to put a record on otherwise. There is something soul-satisfying about a ritual that separates music from noise, culture from chaos. (On the other hand, lately I have been buying cassettes. I am no longer Orthodox, either) (1987, 53).

Once I had become accustomed to the hiss-free playback of my new CDs, I found the surface noises on my LPs annoying. The CD, with its hands-off convenience and pristine recording quality seemed to allow me to “get to the music” more quickly.

All of the above technological improvements, along with the simple passage of time that has allowed entire generations to grow up taking recorded sound for granted, have played a role in decreasing some of the phenomenological distinctiveness of the experience of listening to a recorded object. CDs and their players require little, if any, ritual maintenance, and their static-free play invites the listener to ignore the fact of the recording process. As Dellaira has noted:

That one can conclude on hearing the scratchy and slightly tinny surface of a recording that it sounds “old” raises interesting issues about the way we hear not just the piece and a particular performance of it, but about the way we can literally *hear* the state of recording technology at the time the recording was made. In other words, one can conceivably date a particular recording by the sound of its surface (1991, 11).

The CD's minimal "surface sound" fits in neatly with the commercial sound producer's constant search for verisimilitude in the recording of Western art music, a verisimilitude that has traditionally been "measured by the extent to which the recording apparatus can remain neutral and non-intrusive" (Dellaira 1991, 11). The key to verisimilitude, of course, lies in the *appearance* of truth - as triggered aurally in the case of recorded objects. The less I hear the recording *process*, the easier it is to equate recorded sounds with my memories of those sounds heard live. Furthermore, if I've never heard particular sounds or pieces performed live, the recorded sounds *become my sole phenomenological experience of the piece of music*; the question of how much the recording actually captures the aural presence and space of a real performance becomes almost a moot issue. Even if the listener is prompted to imagine a live performance when listening to a recording, and is able to ignore the physical impossibility of a particular recorded object (for example, Ransom Wilson has recorded himself, through the magic of multi-tracking, playing all the flute parts in an arrangement of Steve Reich's *Vermont Counterpoint*), his or her imagination would fashion an image that lacks the richness of actual experience.

With the advent of music produced through electronic synthesis and computers, the listener's recall of phenomenological experience is given an even smaller role. Dellaira notes that even though many electronically generated pieces manipulate sound in a way that would easily allow a listener to continue to imagine distinct instruments and musicians as responsible for the music, the image of a "performance" is impossible:

It's the mechanics of getting these sounds onto tape (the gesture) that can't be known to the listener, even to one well-versed in how "this kind", i.e., *any* kind of electronic music is made. It's too hard for the listener to

know, much less imagine, just what the composer exactly *did*; this whole process of getting music from brain to ear back to brain again is invisible to the listener, mediated by machine and gadgetry (1991, 28).

Ironically, at the same time that recording technology has in effect increased the average listener's capacity to ignore the fact of recording, advances in playback have allowed recorded objects to be heard in physical contexts that are increasingly removed from the experience of a live performance. The high quality of recorded musical sound invites listeners to close their eyes, focus exclusively on the sensing of their ears until hearing itself is lost in focal disappearance, and pretend that they are really present at a musical event. There is therefore a clear and seemingly mutually complementary correlation between recording quality that effectively obscures the fact of the recording itself, and Cone's ideal model for listening to serious Western music. On the other hand, the portability of recording technology allows music to be played back anywhere, even in circumstances where some other sensorimotor activity or object is clearly (and necessarily) a central focus. Examples of two such technologies, the car stereo system and the walkman, will serve to illustrate my point.

Car stereos have come a long way from their stereotypical manifestation as tremendously loud blasts of popular music that abruptly disrupt whole neighbourhoods when youthful drivers speed through the quiet streets with a cranked up tape deck and a lead foot. In an article entitled "Great auto sound can carry a stiff price," the 4 April 1996 *Edmonton Journal* (Bergen 1996b) reported on auto sound competitions in which novice competitors have spent between \$3000 and \$5000 on their car's stereo system. The point

of such systems is not sheer volume capacity, but rather “The whole aim of the exercise is to allow someone to hear something approaching the quality of a live performance while sitting in the car.” On the other hand, simple loudness is not an undesirable quality as long as “it’s undistorted, balanced and properly filtered,” or as one professional audio consultant notes: “When a man or a woman is in their (car) domain, nobody tells them to turn it down.” The owners of expensive car audio systems unabashedly reveal their interest in certain issues, such as drawing attention to their car, having control and holding prestige, but what is interesting to me is that the ultimate goal of car audiophiles still seems to be the recreation of one perceptual experience - live performance, within an artificial environment that ostensibly exists for another purpose entirely - transportation. Driving, especially in certain urban environments, can be a challenging and absorbing physical challenge on its own. In the 4 April 1996 *Edmonton Journal* article entitled “Car became concert hall on wheels,” the owner of an award-winning car stereo system estimated at \$20,000 does not want to talk about the technical or financial investment made in his car; instead owner Ken Kwan states:

Music is really a big deal in my life. Music is emotional. You remember the music from an important time in your life, . . . Here, we’re trying to get the music to sound real within the demanding confines of a vehicle (Bergen 1996a).

Kwan’s desire to recreate a particular emotional experience of music involves getting music to “sound real,” even though his physical context within the car is utterly distinct from any traditional musicological ideal for concentrated listening. Quite obviously, Kwan and other car audiophiles do not consider his goal incongruous or unachievable, and this

attitude is perhaps most understandable in terms of lived experience.

In his description of the ecstatic body's "gestalt structure," Leder phenomenologically describes how his body simultaneously involves itself in multiple actional gestalts:

while driving I may turn on the radio and soon find myself singing along. My ears and mouth here act as the linked foci of a corporeal gestalt elicited by the music. This second structure does not interfere with that involved in driving because of a certain intergestalt fit. While focal in relation to the music, the ears and mouth are relegated to an inessential role in driving. Conversely, the eyes, hands and feet so central to driving play a background role relative to listening to music. . . . coexisting gestalts may yet interpenetrate through prereflective corporeal syntheses. I may find myself accelerating when a fast song comes on the radio; the very temporality and spatiality of the road are altered by different sorts of music (1990, 24-25).

Leder points out how different senses and areas of the body recede from conscious attention as the human body engages in complex and simultaneous operations. Any person who has experienced music intensely will recall moments of listening during which most of his or her body simply disappeared - usually because of background disappearance. That is, body parts such as neck and shoulders and senses such as taste were forgotten, because they played no active role in listening. Conversely, a person's sense of hearing would have been equally forgotten during listening, because they occupied such a central focal role; hearing *from* the ear *to* music results in the ear's structural disappearance from self-consciousness. Driving actually focally occupies certain body capacities that are typically forgotten during the process of listening to music because they are obscured in background disappearance. The result can therefore *feel* the

same because the driver's ears are occupied in focal disappearance, and the rest of his body disappears from consciousness as well (though for reasons of involvement with a separate focal activity, and not just because of background disappearance). Analysed in this way, the car audiophile's reference to "real" sound is perhaps not so anachronistic after all, since the reality of his or her musical experience likely includes the lived bodily experience of sensory absence that can be recreated within a car. Of course, listening to music in an operating vehicle carries the caveat that the car can at any time demand one's focal attention, or disrupt the fine balance that allows one's body to recede into background and focal disappearance.

The walkman goes even further than the car in bringing musical experience into new contexts and circumstances that are utterly foreign to traditional live performance venues of Western classical music. Shuhei Hosokawa has described the walkman listener as being in "the world of *listening to music alone*. . . he is the *minimum, mobile and intelligent unit* (Robert Fripp) for music listening" (1984, 167). At the same time, the whole point of the miniature, portable and private walkman is that it enables its user to engage in what Hosokawa calls the "walk act." People with walkmans are entirely mobile, physically free from any of the bodily restrictions traditionally associated with listening to Western art music, whether in live performance or on a stationary audio unit; even car stereos confine listeners to those spaces accessible to a vehicle and tether the car's occupants within hearing distance of the car speakers. This contrasts with the walkman as the final step in the development of "music whose source voluntarily or involuntarily moves from one point to another, coordinated by the corporal transportation of the source

owner(s)” (Hosokawa 1984, 166). Walkman users are free to move to music or not, and they are free of being judged since no one else can hear what the user is listening to. Walkman owners are of course able to use walkmans in a non-mobile manner, but the special novelty of the walkman is its integration of the experience of listening with an infinite number of other perceptual experiences: “the walking subject is always in the un-predetermined process of the visual, auditive, olfactive, gustative, tactile transformation of his integral experience through the ongoing change of his point of view” (Hosokawa 1984, 172). Hosokawa offers the following insights into the walk act:

listening is incidentally overlapped by and mixed up with different acts: as a listening act, it is not exclusive but inclusive, not concentrated but distracted, not convergent but divergent, not centripetal but centrifugal. In an *additional* listening act, as opposed to a *subtractional* one (for example, a classical concert), music is in-corporated [sic] with alien elements which are usually taken as non-musical. . . . with the walkman an amalgam composed of music and body is brought about and its user invents the art of their coordination on a daily level in order to figure a ‘short circuit’ in the place he is walking around. Whether it is the walkman that charges the body, or, inversely, the body that charges the walkman, it is difficult to say (1984, 176).

In terms of Leder’s phenomenological analysis, the walkman is a technological toy that fits perfectly with the body’s own ability to engage in constant focal and background flux. The phenomenological body engaged in the walk act can be focally engaged in listening, watching, tasting, smelling, the exercise of particular muscles, or a combination of any number of these activities. Background disappearance also remains unstable given the freedom inherent in the walk act, since any part of one’s body may be required at any time, leaving the rest of the body to fade into background disappearance. The body’s

lived experience during the use of a walkman will therefore involve using different sensorimotor capacities in various combinations that will efface not only the individual's awareness of her own faculties as they are put into use, but may also momentarily efface the listener's awareness of the musical object as listening itself gains and loses prominence within the corporeal field. It would be hard to think of a greater contrast to Cone's listening ideal, excepting perhaps a deliberate refusal to listen to or engage with music.

Curiously, the walkman itself is actually a technical regression. The walkman device is generally capable of fewer functions than the average tape deck, which can also record and broadcast sound over speakers. Hosokawa concludes that the "walkman constitutes a new paradigm owing to its 'revolutionary' effects on the pragmatic - not technical - aspects of musical listening" (1984, 169). I agree that the walkman does not change the listening experience because of its technological potential, but because it captures just enough of the essence of listening to music to allow the walkman user to *control* and *alter* his or her own listening experience. The lived experience of listening, and consequently the musical object which is the subject of that listening, can be individually tailored in the walk act to a degree never before possible.

B. The Listener And Technological Control

The simple fact is, listening to music is never "simply" an aural experience. Cusick alludes to this when she contrasts her imagined presence at a vocal recital by Jessye Norman with listening to Norman's recorded performance:

Yet recording technology radically changes the ways both listeners and performers behave - perform - during the "performance." For as listeners we need not be in the dark; we need not sit still; we need not be silent. Because we can arrange to be alone when we listen, we can experience Norman-as-voice in a situation of the most private intimacy; we can have her all to ourselves. Because we can move about, expressing our experience of ecstasy any way we choose, we need not focus on it as an exclusive experience of minds and ears. We can choose to replicate Norman's disappearance into the higher power that is "the music itself" - or we can choose not to. The ritual of sharing the performance of complementary bodily obedience to higher power is dismantled: only Norman's body must be disciplined to produce the performance we will share (1994a, 101).

Cusick's thoughts on recording technology highlight issues of choice and control. In the era of exclusively live musical performance, a listener generally had the initial choice to attend a performance, but once the choice to attend was made, social mores and cultural practice dictated certain kinds of physical behaviour, and promoted a certain ideal mental listening process (Leppert, 1993, 25). The audience at a live performance of Western art music is given something to hear, something to see,¹⁴ a pre-decided program order, and their own task of physical self-discipline to perform. Recording technology has in large part displaced the reality, if not the idealization, of this type of listening.

Cone takes particular note of the factor of control when he describes it as:

the fundamental difference between performing and listening - the reason why, although the performer must listen carefully to the music he is making, and the intent listener mentally performs the work he is hearing, the attitudes of the two are dissimilar. The question is one of control. The

¹⁴One could argue that a listener is always free to shut their eyes during a concert; while I have on occasion closed my eyes during parts of a live performance, I never do so for prolonged periods because of the twin fears that neighbouring observers will think that I am ignorantly sleeping through the performance, and I will miss some vital, spectacular or funny visual cue. I don't think that I am entirely alone in experiencing these anxieties.

performer directs, or takes part in the direction of, the course of events in the composition. . . . The listener has no such opportunity; he must submit to the direction of others (1974, 136).

Recording technology gives listeners freedom from the stricture of being purely passive bystanders whose only physical functions involve using their ears and clapping on cue. Stereo audiophiles have always had the capacity to select what music they will hear, alter its frequency ranges and bass/treble mix, determine its order of hearing, and change volume, tone and balance. With the introduction of home digital sound processing modules, technology actually may allow listeners to affect fundamental change in the actual recorded object or performance; playback technology may soon enable listeners to perfect their favourite recordings by correcting a singer's French pronunciation, erasing a flat solo oboe note, or slowing a conductor's too fast tempo without lowering overall pitch. Dellaira wonders about "the point where compositions (/recordings) will emerge which encourage (and even require) the listener's participation, via any number of these electronic devices, in 'completing' the piece. The question is not if, but when, the listener of the recorded object will officially join the ranks of its performers" (1991, 119).

Technological control over playback is not just an intellectual exercise or a mental game played by modern consumers of recordings, it is a factor that is capable of profoundly changing the phenomenological experience of listening to music. Benjamin was actually referring more to the visual arts when he wrote that "Even the most perfect reproduction of a work of art is lacking in one element: its presence in time and space, its unique existence at the place where it happens to be" (1968, 222). However, the

statement is equally applicable to the realized performance of a musical work of art, which may or may not retain the aura of a “unique phenomenon of a distance however close it may be” (1968, 245). Live performance, where charismatic performers engage in highly skilled complex tasks and listeners are bound to a strict code of public behaviour, places a distance between the audience and the music performed. When music is performed, it is given a reality that does indeed have a unique place in time and space. Increasingly, musical recordings no longer document an actual single performance, much less a live one: single measures or notes may be recorded out of sequence, by musicians who need never be in actual contact, and mixed by audio engineers in proportions unrealizable in reality. As Dellaira notes, there are “many ways in which a sequence of sounds can find its way onto a sequence of tape” (1991, 9).¹⁵

The factor of the listener’s technical control over recording playback further stretches the already extremely tenuous connection between recorded objects and a unique “presence in time and space” that is an actual performance. I will further illustrate this point by examining just one aspect of the concept of music in space - the relation of music and architecture, because the space in which one listens to music is such an intimate and inextricable aspect of the lived experience of listening.

Kurt Blaukopf observes that the technical mutation of musical practice has directly affected musical communication in a number of ways. One consequence is that “music is

¹⁵An interesting related point is whether the upholding by audiophiles of certain recordings as “definitive” is not an attempt to create artificially a kind of aura unique to recorded performance. That is, any mass recording can be simultaneously played in various locations, but the recorded object can still claim the distinction of being an extraordinary *recording* that was captured in a unique time and space.

no longer dependent on conditions given by the shape of the space in which it is performed. Architecture has lost its direct influence on the shape of music” (1992, 177). In a live performance, sound waves reflect from the surfaces of the room in which music is performed; the element of reverberation is a unique and identifiable aural aspect of physical space, and any listener who has grown accustomed to live performances can begin to identify certain acoustics with the sight and feel of certain spaces.¹⁶ With the use of music recording and playback, acoustics is no longer a matter of direct perception alone. A piece of music written for a large ensemble, to be performed in a grand concert hall or in an outdoor forum, must sound different in the confines of a small living room or a car. The recording’s dynamics, the acoustic characteristics of both the recording space and the listening space, details of microphone placement and production mix, and the electronic addition of reverberation to recordings with little resonance are all factors that change the actual sound of music as it is heard. Blaukopf makes the following distinction:

Musical communication through the sensory channel corresponds to a *fixed* room whose characteristics are unchanging; the technological transmission channel corresponds to a *variable* room whose properties can be altered in the course of a single musical performance. This distinction, proposed by Fritz Winckel, makes it clear that technological development “goes beyond our natural sense of space” (Winckel 1975, 180). Electronic alteration can be taken so far that individual components of what is played can be given different reverberations (1992, 185).

Blaukopf makes the point that technologically transmitted music has fundamentally

¹⁶Musicology has researched the links between compositional style, musical style and the room acoustics of the spaces in which particular musics were commonly performed (i.e., large cathedrals, private chambers, arched theatres); see Blaukopf 1992, c. 21 and references contained therein.

erased the old distinctions of musical genre that had once been determined by social factors and acoustical properties. In other words, technology has changed the object of music itself. While I certainly would not deny this point, I think that it is equally valid to assert that technology has fundamentally changed the very process of listening by altering our perception of the physical spaces in which music is played. The listener's intellect may compensate for or rationalize the incongruity of sitting in a basement bedroom and hearing the interweaving voices of a Renaissance motet recorded in an airy vaulted cathedral, but the mind alone cannot give the listener a lived experience that *equals* that of actually being a listener at such a performance in such a space. Here I will be careful once again to state that I am not directly discussing the phenomenological description of a piece of music itself, where it can be argued that a particular piece has an essence which "remains the same whether I am experiencing it now, remembering it, anticipating it, or judging it" (Clifton 1983, 16). Rather, I am stating that recording technology changes the physical way of listening, such that "losing oneself" in the *what* of music has become an increasingly artificial and difficult proposition. Most of the time, a recording is made of music that no longer occupies a unique place and time in reality, and *listeners not only know this, they expect it*. If I am asked to lose myself in a piece of music that I place in my CD player, I must rely wholly on my aural sense and my mental imagination, because my sense of vision and my physical sense of space have no actual or remembered input on which to operate. As Dellaira notes, "once recordings cease being documents - once they are freed from the necessity of imitating real-time events (and referencing some other location) and are heard as soundworks in their own right, they become part of the physical

structure in which they are played back” (1991, 118). At this point, an analysis of the musical object without reference to phenomenological description and the physical context of listening is both impractical and academically abstruse.

If Western musicology’s traditional valuation of musical objects is founded upon finding “eternal values” inherent in the music of the academic canon, then inevitably the tradition requires great music to invoke the same (intellectual - given our society’s valuation of the mental over the physical) responses, no matter how the musical object has been presented. However, simplistically to equate live performance and recorded objects just because the musical object recorded is the same piece is neither a valid nor a realistic practice. Keane points out cognitive studies that reveal how “neurons on the surface of the brain will respond, for example, when a visual stimulus is perceived at a particular point in space (but not at other points) and will respond when an auditory stimulus is perceived at the same point in space (but not at others).” His response is that:

Such an arrangement might well suit the brain, but it often raises [the problem of music being grossly misrepresented by words]: we attempt to understand our musical experience by comparing it to our experience of watching a sunset. We forget that it is only our response that the two actually have in common. The two phenomena themselves may be entirely different (1982, 329).

Perhaps musicology has placed similar expectations on listening. That is, we commonly and casually compare listening to Beethoven’s *Ninth Symphony* in live performance and on a recording as if the two experiences were similar and therefore comparable, but phenomenologically the two experiences are utterly different. Yes, the notes are the same, the “music itself” may be the same - but the essence of the *listening experience* has been

transformed by technological possibilities. This need not be interpreted as a comparison of the live performance and the recorded object, and it need not result in the idealization of one over the other unless we enshrine a manner of listening that is easier to achieve with either live performance or a recording.

This is not to say that a recording is *incapable* of being experienced in the same way as a live performance. For many, recordings have allowed them to actually experience the kind of ecstatic listening to Western art music that could be otherwise impossible or difficult to attain - either because live performances are geographically or financially unobtainable, or because aural and emotional concentration can be more difficult in a concert hall context. Glenn Gould, for one, enthusiastically praised the “analytic clarity, immediacy and indeed almost tactile proximity” of recordings above the “musical mercantilism” and “acoustical limitations” of the concert hall (1984, 332-34). Others pessimistically argue that “our audience today is an audience for recordings rather than an audience for music. . . The audience spurns creative experiment for the blander perfections of the recording studio. . . modern Americans are better consumers of records that ever before, but they are poorer music-listeners” (Ivey 1977, 8-9). Regardless of whether modern listeners are judged “dumber” after listening to recordings, they are undoubtably freer to experience a number of different models of listening, and these choices are there not just because of changes in cultural practices or the sociological role of music, but because technology alters our lived experience of music. Our sensorimotor capacities and bodies are employed in the task of listening in a variety of combinatory mixes according to the different means of technological playback. Ultimately, we face the

question, once we become accustomed to the multiplicity of listening experiences and models which technology makes possible, of whether we would actually choose to accord the “object” of music the same status and intentional concentration that we had once given it, and furthermore, whether we would even be capable of giving, or *want* to give, such concentrated attention.

C. The Adequate Future

The Swedish musicologist, Ola Stockfelt, completed a fascinating study in 1988 in which he traces Mozart’s *G-minor Symphony*, K. 550 through the various arrangements and manifestations which it has undergone over the space of its two centuries of existence. Through analysing changes in the symphony’s performance and reception, Stockfelt develops a theory of “adequate listening” which recognizes that listeners listen *for* different things in relation to the sound of music. Even more importantly for my purposes, Stockfelt identifies listening context as a primary determinant in the listening experience:

how one listens to music is conditioned by the situation in which one meets it. Particularly with regard to music within the communal repertoire, one can even assume that daily listening is often *more conditioned by the situation in which one meets the music than by the music itself or by the listener’s primary cultural identity*, at least within the rather homogeneous cultural sphere that comprises Western industrialized environments. Which mode of listening the listener adapts in a given situation is mainly determined by how the listener chooses to listen, that is, which mode of listening he or she chooses to adopt. This choice is, on the other hand, neither totally free or accidental (1993, 157).

Stockfelt recognizes that the extreme variability of listening context available today

is still a relatively new development in the history of hearing music (1993, 159); it is a development that self-evidently is linked to technological advances in recording and amplification. Implicit in Stockfelt's entire analysis is the *phenomenological* acknowledgment that the contextual variety enabled by recording technology has effected profound changes in the process of listening to Western art music. Recording technology has cut the threefold links that have historically been attributed to specific musics, particular listening environments, and certain kinds of relationships between performers and listeners. For example, a certain physical context and network of social relationships is implicated in the performance of chamber music in the early eighteenth century, written and performed at private functions by musicians who were employed in the households of their noble listeners. By attributing such current importance to changes in listening environment, Stockfelt has had to make a connection between the lived body's perception of the musical object, and how we value and choose to listen to the musical object itself.

Stockfelt's research leads him to conclude that:

To listen adequately hence does not mean any particular, better, or "more musical," "more intellectual," or "culturally superior" way of listening. It means that one masters and adapts the ability to listen for understanding from the specific genre's comprehensible context.

Adequate listening is not a prerequisite for being able to assimilate music, to enjoy music, to learn how to recognize musical styles, or to create meaning for oneself from what the music expresses; it *is* a prerequisite for being able to use the music as a language in a broader sense, as a medium for real communication from composer, musician, and/or programmer to audience/listener (1993, 161).

Stockfelt's practical and non-judgmental approach to his research frees him from searching for, or assuming, the maintenance of those unchanging "eternal" characteristics

in the listening experience which, according to traditional musicology, entrench the *G-minor Symphony* within the Western art music canon. Instead, he is free to recognize and theorize about the pivotal role of physical context in the experience of listening.

Traditional musicological investigations focus on how the musical object “should” be heard, and consequently run the risks of both missing the importance of changes effected in embodied listening by third factors such as technology, and losing relevance for the contemporary audience. Stockfelt admonishes both his readers and himself to “develop our own reflexive consciousness and competence as active ‘idle listeners’” (1993, 166). As well, he advises us that different modes of listening already exist and are in use, and we would therefore be much more productive in our understanding and teaching of musical objects if we took account of and emulated how different modes of listening are applied to the musical object.

Of course, there are other influential writers who take a decidedly non-phenomenological approach to the music experience of the future. The French economist Jacques Attali paints with broad brush strokes a socio-historical picture of the “political economy” of music (1985), and in doing so he takes the daring step of regarding music as a dynamic, complex and *prophetic* metaphor for the real world. That is, Attali reverses an analytical stance typical in Marxist economics, and treats music as far more than a mere superstructure activity that tamely reflects a reality that is solely determined by the economic infrastructure. Attali’s extended metaphor regards noise as life - “Nothing essential happens in the absence of noise” (1985, 3) - and music as the vital and political means by which noise is appropriated and controlled; studying the world *through* music is

a way to gain unique insight into the means by which human beings wield power in and over the world. Attali traces four overlapping stages in his historiography of the relationship between music and the economy: sacrifice, representation, repetition and composition. In the final chapter of his study, Attali points to composition - "*not a new music, but a new way of making music*" (1985, 134) - as the hope and herald of a new society. Attali's work is strikingly visionary in its linkage of music, political order and social change, but his analysis of musical experience is so utterly removed from phenomenological lived experience that his analysis ultimately remains a didactic utopian ideal.

Attali gives lip service to the body:

Composition- a labour on sounds, without a grammar, without a directing thought, a pretext for festival, in search of thoughts - is no longer a central network, an unavoidable monologue, becoming instead a real potential for relationship. It gives voice to the fact that rhythms and sounds are the supreme mode of relation between bodies once the screens of the symbolic, usage and exchange are shattered. In composition, therefore, music emerges as a relation to the body and as transcendence. . .

But in composition, it is no longer, as in representation, a question of marking the body; nor is it a question of producing it, as in repetition. It is a question of taking pleasure in it. . . Any noise, when two people decide to invest their imaginary [sic] and their desire in it, becomes a potential relationship, future order (1983, 143).

Attali's words sharply recall Glenn Gould's vision that "In the best of all possible worlds, art would be unnecessary. . . The audience would be the artist and their life would be art." (1984, 353) As appealingly idealistic as this concept is, however, I have a number of objections to Attali's premise of composition. First, the above analysis is heavily socially deterministic. Attali initially refuses to characterize music as a simple

superstructure activity, but he also seems to assume that music performance and listening lose their relationship with the body once society achieves any kind of collective valuation for music; common practise marks music as solely a product of labour, and the lived experience of making and hearing music is ignored. For Attali, composition leads to radical freedom, but only if it involves the creation of new, individualistic ways of making music in which people will take pleasure in the very process of producing differences. However, this analysis still leaves open the distinct possibility that some individuals will be better “musical producers of difference” than others, and society will once again achieve a collective valuation - only this time it will be of the processes of music-making, and not the product of music. No matter how much Attali may mention “the body”, his discussion of music as a prophetic and liberating force relies on a change in the cultural conception of composition, and not in the lived experience of music. In the interim, the enjoyment and freedom that many individuals now experience in their mastery of established means of music-making and listening is simply discounted.

Second, Attali does not explain how noise can become a relationship between two people who are each intent on composition - how is communication established if no one engages in listening? Attali recognizes that his ideal of composition as a “social form for the recreation of difference” will require “the coexistence of two conditions: *tolerance and autonomy*” (1985, 145). That is, everyone must be willing to tolerate the noise of others, and they must persist in their own individual creation even if they fail to find others who are composing in complementary modes. In the face of such twin demands, I would add a third condition: interest. Even if everyone *is* capable of composition and given the

opportunity to compose, how can it be assumed that every person is actually interested in channelling their creativity in such a fashion? Obviously Attali is operating in the rarified realm of metaphor when he makes the claim that music composition will enable both a “relation to oneself” and a collective creation (1985, 142, 143), since he ignores the level on which living individuals make the choice to engage in different experiential aspects of music-making and listening.

Third, the new way of making music is heavily dependent upon new technology: “In composition, it is cartography, local knowledge, the insertion of culture into production and a general availability of new tools and instruments” (1987, 147). I have argued that phenomenology gives me a tool for understanding how recording technology alters the experience of listening, but phenomenological analysis has nothing to grasp in Attali’s flat assertion that new instruments will enable individuals to compose for pleasure and relationship. Musical instruments take real time and physical discipline to learn and master. The use of existing instruments in ways that deliberately refute these facts is a social statement in itself, and one that is hardly facilitated by the development of new instruments. More importantly, Attali seems to assume that the complex ties that link the experiences of music-making, music listening and physical discipline have the one-dimensional character of social fetters that may only be cut with the invention of new instruments; he fails to understand that such links may in and of themselves comprise pleasure and relationship. The lived experience of composing and playing music, whether computer generated or not, is inextricably linked to efforts of mind and body over time. Practising composers recognize this. When Luciano Berio was asked whether he had ever

considered electronically modifying traditional instruments, he replied:

No. An instrument is never only the sound it produces but also the very sophisticated actions of the performing musician. It is on this point that there is an inevitable deep conflict between traditional instruments and electronics. In fact the involvement is often *bricolage* (possibly 'tinkering') and their marriage produces hybrid creatures most of the time. I feel that electronics should be put to better use. Maybe I have too much reverence for traditional instruments. We all know that a grand piano is a symbol, a monument like the Eiffel Tower or Buckingham Palace, but it is also a fantastic musical machine of a much more complex nature than the electronics usually used to tamper with its interior. The evolution of instruments is always a process of a social nature. Instruments are never invented. In European culture the origins of an instrument are outside of the instrument (Emmersen 1976, 28).

Ultimately, Attali's version of music as the herald of social change is dissatisfying and unconvincing because it is disembodied; he writes of a construct of musical experience that is utterly removed from the lived experience of listening to or producing music. History has been sacrificed to a vague technology-driven glimpse of freedom that has also left the lived body behind.

Glenn Gould, a musician with a somewhat utopian bent when writing of technology, at least has a more extensive understanding of the phenomenological aspects of musical experience. In one essay (1984), he pinpoints a feature of the relationship between the listener and recording technology that relates back to an issue earlier highlighted by Edward Cone - control:

At the centre of the technological debate, then is a new kind of listener - a listener more participant in the musical experience. The emergence of this mid-twentieth-century phenomenon is the greatest achievement of the record industry. For this listener is no longer passively analytical; he is an associate whose tastes, preferences, and inclinations even now alter peripherally the experiences to which he gives his attention, and upon

whose fuller participation the future of the art of music waits. . . .
. . . Is it not, then, inopportune to venture that this participant public could emerge untutored from that servile posture with which it paid homage to the status structure of the concert world, and overnight, assume decision-making capacities which were specialists' concerns heretofore?

The keyword here is "public." Those experiences through which the listener encounters music electronically transmitted are not within the public domain. Because of the circumstances this paradox defines, the listener is able to indulge preferences and, through the electronic modifications with which he endows the listening experience, impose his own personality upon the work. As he does so, he transforms that work, and his relation to it, from an artistic to an environmental experience (1984, 347).

The key change that recording technology enacts for the listener, what it will continue to change in the future, is control over the listener's environment and physical experience of music. Without denying that recording technology affects the recorded object through its influence over performers and composers, for the listener, changes in recorded repertoire and technical playing standards do not compare with the revolutionary phenomenological differences engendered by the profound freedom to choose where and how one will listen. While this freedom takes place within a cultural and social context, it is primarily a physical freedom - a change in the body's lived experience. If phenomenology is not recognized as a real tool of musicological analysis, these and other future changes in the listener's experience of music will not be adequately understood, since lived experience will be of little relevance to a discipline that is exclusively focussed on detecting and explaining changes in the object and its cultural interpretation.

CHAPTER V CONCLUSION

In an innovative historical analysis of the myriad links between math and science,

Thomas Levenson writes of musical inquiry at the turn of the fourteenth century:

Experience - of nature, of human affairs, of the daily round of prayer and chant - all this could reaffirm revealed knowledge. Each encounter with the world could give depth and flesh to those truths already known and affirmed by faith. But experience was an illustration, the exercise of reason a demonstration of essential verities. . . .

To follow this line of thought, music becomes inadvertently a kind of laboratory within which to examine in sound the operation of laws that govern not just music, but all of creation. . . . The urge to expand the view, as it were, would have been inescapable, built into the longing to examine more closely the truths that music could expose.

And that urge carries with it danger very like that Augustine had sensed: the risk that experiments in sound would expose a gap between the experience of music made and heard and the underlying vision music was supposed to convey (1994, 68).

Levenson does not refer specifically to phenomenology when he writes of “experience,” but his insights into the period are extremely applicable to issues that I have raised in this paper. The disciplines of music theory and musicology have developed extensive foundational bodies of information about Western art musics; there are theories of pitch and structural analysis for pieces ranging from Gregorian chant to avant-garde electronic composition, and meticulously researched documents on the social and historical context of specific musical objects. As an academic discipline, musicology has

usefully revealed much about our experience of music, but in doing so, it has generally relied upon non-phenomenological methodology. As discussed in Chapter III, much of traditional musicology has focussed on a particular type of listening - one that concentrates exclusively on the musical object and minimizes the lived experience of listening; this approach carries with it the risk that lived experience will diverge from the “revealed knowledge” of experts. The “danger” of such a divergence has been exacerbated in the twentieth century with the advent of recording technology, for now the laboratory of music is no longer a place peopled only by composers, musicians and discerning musicologists. Socially and culturally, the listener may be constructed as an oppressed and manipulated individual, and technological innovation has certainly contributed to such a construction, but technology in itself has also given the contemporary listener a degree of physical choice and control that is unprecedented in musical history.

In his concluding remarks, the conductor Leinsdorf reveals the agenda behind his assumption of the role of “composer’s advocate”: “to wean professional musicians from learning their music through the ear and guide them toward an independent and more reliable method of learning through the eye and the mind” (1981, 209). Leaving aside completely the issue of whether musicians are actually in need of such a “weaning,” Leinsdorf’s confessions reveal what he regards as the three ways to learn music: the ear, the eye, the mind. Of these three options, what can listeners rely on in their musical experiences? For many listeners, the eye, in Leinsdorf’s intended meaning of reading

music scores, is not an option.¹⁷ However, listeners have the eye in its simple meaning as a sensorimotor capacity, the ears, the feet - and a mind that is willing to assume that control over the recorded musical object which technology has offered in the last few decades. The human body listens to, engages with, ignores, is enraptured by music, in ways that are increasingly diverse, and always dynamic in any given listening situation - from a live performance to recorded sound. Leder's complex analysis of the body's focal and background disappearance is very apt for today's listener, who does not need to *choose* to listen with the mind *over* the ear or the eye, or at least, does not need to be bound to conclusive choices lasting for any length of time.

Leon Botstein regretfully observes that "The text of music has disappeared and has been replaced not by the memory of sound once heard or the imaginary sound - the world engendered by printed signs and instructions (e.g., notes) - but rather by the recollection of repeated hearings of particular performances themselves consumed in discontinuous and nonuniform patterns" (1994, 182-83). For many contemporary listeners, it is inaccurate to assert that recorded sound has "replaced" anything, for musical text and imagined sounds triggered by a visual code have simply never been part of their own experience of music. Rather, their most familiar and dearest experience of music is rooted

¹⁷Leon Botstein offers an interesting alternative use of the eye in his assertion that the nineteenth-century concert audience devalued the experience of playing and listening to music in favour of *reading* about music, which activity became the central way in which musical culture came to be communicated and acquired (1992). He states that "The route to good listening was entirely referential. Language made clear the 'mystery' inherent in music" (1992, 142). However, Botstein concludes that *fin-de-siecle* audiences eventually rebelled against the imposition of literary conventions and values on musical experience, and once again sought a more idiomatic musical expression.

in listening to the recorded object and in the operation of listening technology; when musicology fails to address the phenomenological truth of these facts, it faces that dangerous “gap between the experience of music made and heard and the underlying vision music was supposed to convey” (Levenson, 1994, 68).

In my earlier description of the Ravel *Piano Concerto in G-minor*, my intellectual and emotional perception of the music might have been achieved in the context of a live performance (though it has never been replicated so far), but my embodied experience of the piece is uniquely tied to a physical context that could not have been achieved without recording technology. Whenever I have heard the concerto since, I have recalled the richness and privacy of that fully embodied experience of listening in my parents’ basement. For me, the essence of listening is not necessarily a replication of that singular mode of listening, but neither is it necessarily the “losing of oneself” into the life of the musical piece advocated by Cone, even though I have attended live concerts which have left me astonished and deeply moved, my entire body drained with the un-self-conscious need to concentrate on, and take some part in, a mesmerizing performance. In fact, the essence of listening (to a repertoire of Western art music which I continue to feel very strongly about) necessarily includes that flexibility and freedom of choice that has been advanced through the proliferation of recording technology. I may choose to attend live performances and listen in the dark with other members of the anonymous public, I may choose to stay in my home and place earphones upon my head while I move my body in time to the beat, I may choose to listen to Brahms or Berg while driving in rush hour traffic, but most importantly of all, I will choose to listen in all of these ways and places.

REFERENCES CITED

Literature

- Adorno, Theodor W. 1978. On the fetish character in music and the regression in listening. In *The essential Frankfurt school reader*, ed. Andrew Arato and Eike Gerhart, 270-99. New York: Urizen Books.
- Attali, Jacques. 1985 (orig. 1977). *Noise*, trans. Brian Massumi. Theory and History of Literature, vol. 16. *Forward* by Fredric Jameson. *Afterword* by Susan McClary. Minneapolis: University of Minnesota Press.
- Augustine, Saint. *Confessions*. Translated by Whitney J. Oates in *Basic writings of Saint Augustine*. New York: Random House, 1948. Quoted in Donald Jay Grout and Claude V. Palisca. *A history of Western music*, 36. New York: W.W. Norton and Company, 1988.
- Baker, Gordon and Katherine J. Morris. 1996. *Descartes' dualism*. London: Routledge.
- Barthes, Roland. 1985a. The grain of the voice. In *The responsibility of forms: Critical essays on music, art and representation*. Translated by Richard Howard. New York: Hill and Wang.
- _____. 1985b. Loving Schumann. In *ibid*.
- _____. 1985c. Musica practica. In *ibid*.
- _____. 1985d. Rasch. In *ibid*.
- _____. 1985e. Romantic song. In *ibid*.
- Barthes, Roland and Roland Havas. 1985. Listening. In *ibid*.
- Bartholomew, Douglas. 1989. Preamble to a phenomenology of music. In *Understanding the musical experience*, ed. F. Joseph Smith, 1-42. New York: Gordon and Breach.

- Benjamin, Walter. 1968. The work of art in the age of mechanical reproduction. In *Illuminations*, 219-53. Translated by Harry Zohn. New York: Harcourt, Brace, and World.
- Bergen, Bob. 1996a. Car became concert hall on wheels. *Edmonton Journal*, 4 April, F1.
- _____. 1996b. Great auto sound can carry a stiff price. *Edmonton Journal*, 4 April, F11.
- Blaukopf, Kurt. 1992. *Musical life in a changing society*. Rev. Eng. ed. Translated by David Marinelli. Portland: Amadeus Press.
- Blodgett, E.D. 1996. *Apostrophes: woman at a piano*. Ottawa: Buschek Books.
- Botstein, Leon. 1992. Listening through reading: Musical literacy and the concert audience. *19th-Century Music* 16 (Fall): 129-45.
- _____. 1994. Music, technology, and the public. *Musical Quarterly* 78: 177-88.
- Brunette, Peter. 1994. Electronic bodies/real bodies: Reading the evening news. In *Thinking bodies*, ed. Juliet Flower MacCannell and Laura Zakarin, 181-94. Stanford: Stanford University Press.
- Card, Orson Scott. 1981. Unaccompanied sonata. In *Unaccompanied sonata and other stories*, 244-72. New York: Dial Press.
- Casey, Edward S. 1996. The ghost of embodiment: Is the body a natural or a cultural entity? In *The incorporated self: interdisciplinary perspectives on embodiment*, ed. Michael O'Donovan-Anderson, 23-43. Lanham, Md: Rowman & Littlefield Publishers.
- Chanan, Michael. 1994. *Musica practica: The social practice of Western music from Gregorian chant to postmodernism*. London: Verso.
- _____. 1995. *Repeated takes: A short history of recording and its effects on music*. London: Verso.
- Clifton, Thomas. 1983. *Music as heard: a study in applied phenomenology*. New Haven: Yale University Press.
- Crowther, Paul. 1993. *Art and embodiment: From aesthetics to self-consciousness*. Oxford: Oxford University Press.

- Cusick, Suzanne G. 1994. Gender and the cultural work of a classical music performance. *repercussions* 3 (spring): 77-110.
- _____. 1994. On a lesbian relationship with music: A serious effort not to think straight. In *Queering the pitch: The new gay and lesbian musicology*, ed. Philip Brett, Gary Thomas and Elizabeth Wood, 67-83. New York: Knopf.
- Dellaira, Michael Richard. 1991. For the record: Recorded objects and the new listener [(with) original compositions and original text]. PhD diss., Princeton University.
- Dunsby, Jonathan. 1995. *Performing music: Shared concerns*. Oxford: Oxford University Press.
- Eisenberg, Evan. 1987. *The recording angel: The experience of music from Aristotle to Zappa*. New York: Penguin Books.
- Gould, Glenn. 1984. The prospects of recording. In *The Glenn Gould reader*, ed. Tim Page, 331-53. New York: Faber.
- Hamm, Charles. 1975. Technology and music: The effect of the phonograph. In *Contemporary music and music cultures*, ed. Charles Hamm, Bruno Nettl and Ronald Byrnside, 253-70. Englewood Cliffs, New Jersey: Prentice-Hall.
- Hosokawa, Shuhei. 1984. The walkman effect. *Popular Music* 4: 165-180.
- Ivey, William. 1977. Recordings and the audience for the regional and ethnic musics of the United States. In *The phonograph and our musical life: Proceedings of a centennial conference held at the City University of New York 7-10 December 1977*, edited by H. Wiley Hitchcock, 7-11. Brooklyn: Institute for Studies in American Music.
- Keane, David. 1982. A composer's approach to music, cognition and emotion. *Musical Quarterly* 68 (July): 324-36.
- Kramer, Lawrence. 1990. *Music as cultural practice, 1800-1900*. Berkeley: University of California Press.
- _____. 1995. *Classical music and postmodern knowledge*. Berkeley: University of California Press.
- Leder, Drew. 1990. *The absent body*. Chicago: University of Chicago Press.

- Leguin, Elisabeth. 1994. Uneasy Listening. *repercussions* 1(spring): 5-19.
- Leinsdorf, Erich. 1981. *The composer's advocate*. New Haven: Yale University Press.
- Leppert, Richard. 1993. *The sight of sound: Music, representation, and the history of the body*. Berkeley: University of California Press.
- Levenson, Thomas. 1994. *Measure for measure: a musical history of science*. New York: Touchstone.
- Lowe, E. Jonathon. 1996 *Subjects of Experience*. Cambridge: Cambridge University Press.
- Lukács, George. 1973. *Marxism and human liberation*, ed. E. San Juan, Jr. New York: Delta.
- MacCannel, Juliet Flower. 1994. Introduction to *Thinking bodies*, ed. Juliet Flower MacCannell and Laura Zakarin, 1-15. Stanford: Stanford University Press.
- Monelle, Raymond. 1992. *Linguistics and semiotics in music*. Contemporary Music Studies. Chur, Switzerland: Harwood Academic Publishers.
- Motycka, Arthur. 1989. Experiencing a musical composition. In *Understanding the musical experience*, ed. F. Joseph Smith, 1-42. New York: Gordon and Breach.
- Mowitt, John. 1987. The sound of music in the era of its electronic reproducibility. In *Music and society*, ed. Richard Leppert and Susan McClary, 173-197. Cambridge: Cambridge University Press.
- Nelkin, Norton. 1996. *Consciousness and the origins of thought*. Cambridge: Cambridge University Press.
- O'Donovan-Anderson, Michael. 1996. Introduction: In search of real bodies: Theories and/of embodiment. In *The incorporated self: interdisciplinary perspectives on embodiment*, ed. Michael O'Donovan-Anderson, 23-43. Lanham, Md: Rowman & Littlefield Publishers.
- Robbins Landon, H.C. 1992. *Beethoven: His life, work and world*. London: Thames and Hudson.
- Schrader, Barry. 1989. The development of personal compositional style. In *On the wires of our nerves*, ed. Robin Julian Heifetz, 76-82. Cranbury, NJ: Associated University Presses.

- Sheets-Johnstone, Maxine. 1992a. Charting the interdisciplinary course. In *Giving the body its due*, ed. Maxine Sheets-Johnstone, 1-15. Albany: State University of New York Press.
- _____. 1992b. The materialization of the body: A history of Western medicine, a history in process. In *ibid.*
- _____. 1996. Darwinian bodies: Against institutionalized metaphysical dualism. In *The incorporated self: interdisciplinary perspectives on embodiment*, ed. Michael O'Donovan-Anderson, 23-43. Lanham, Md: Rowman & Littlefield Publishers.
- Smalley, Denis. 1992. "The listening imagination: Listening in the electroacoustic era" in *Companion to contemporary musical thought*, ed. John Paynter, Timothy B. Howell, Richard Orton, and Peter Seymour (2 vol), 555-94. London: Routledge.
- Stockfelt, Ola. 1993. Adequate modes of listening. Translated by Anahid Kassabian and Leo G. Svendsen. *Stanford Humanities Review* 3: 153-69.
- Storr, Anthony. 1992. *Music and the mind*. New York: Free Press.
- Sudnow, David. 1978. *Ways of the hand: The organization of improvised conduct*. Cambridge: Harvard University Press.
- Thompson, Emily. 1995. Machines, music, and the quest for fidelity: Marketing the Edison phonograph in America, 1877-1925. *Musical Quarterly* 79: 131-71.
- Zarlino, Gioseffo. 1968. *On the modes*, trans. Varen Cohen. New Haven: Yale University Press.

Recordings

- Ravel, Maurice. *Piano Concerto in G-minor/Rachmaninoff, Piano Concerto No. 4 in g-minor*. Performed by Arturo Beneditti Michelangeli (pno) and the England Philharmonia Orchestra, Ettore Gracis conducting. LP S-35567. Angel/Capitol Records.
- Reich, Steve. *Vermont Counterpoint*. Performed by Ransom Wilson (flute, alto flutes, piccolo). CDC-7 47331 2. Angel/EMI.