"Copies Without Originals": Manipulation, Mediation, and Mediatization in Performance and Recording Practices

by

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Abstract

This thesis examines case studies and historical accounts taken from different periods of the history of recording technology, and addresses questions concerning the impact of mediatization, manipulation, and mediation on listeners' and performers' approaches to music. The project considers the development of the idea of "copies without originals," and of the ideological frameworks that have been used to describe and classify recorded sound. The first case study covers the early days of the phonograph and its development in Victorian society, then contrasts the values and motivations of those early years with modern-day rock performance and its own value systems. Moving into the mid-twentieth-century, a chapter of this thesis is devoted to the work of Glenn Gould, and the possibilities for tape manipulation that the Canadian pianist explored during the period of his career that was focused on the recording studio. Lastly, this project examines the innovative, user-driven methods of music-making that are gaining momentum today, including Björk's *Biophilia* app album, and the emergence of a new genre of popular music in Asia that uses vocal synthesizers in place of live performers. By exploring these case studies alongside the works of scholars in musicology, media studies, sound theory, film and television, and popular music studies, this thesis demonstrates how cultural need, individual innovation, and social involvement interact to direct the development and application of emerging media technologies.

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Chapter 1

Introduction

In his recent book on the history of sound, communications scholar Jonathan Sterne takes a jab at the disembodied, omnipotent light in which technologies are sometimes cast in historical accounts:

> In "impact" narratives, technologies are mysterious beings with obscure origins that come down from the sky to "impact" human relations. Such narratives cast technologies themselves as primary agents of historical change: technological deification is the religion behind claims like "the telephone changed the way we do business," "the phonograph changed the way we listen to music."[1]

Sterne points out that these kinds of statements stem from "an impoverished notion of causality"[2] in which technological innovations themselves are set on a pedestal as the single point of origin for a host of cultural changes. As Sterne suggests, the reason this deterministic perspective falls short is that it attempts to establish a single-direction, cause-and-effect relationship between technology and social change, when in fact, the technologies themselves are just as much on the receiving end in a highly-complex web of social forces and cultural demands that shape the very creation, use, and development of emerging technology. The technology that was eventually used in broadcast radio was originally conceived as a method of point-to-point communication using electric pulses sent wirelessly, and as such, was referred to for the first few decades of its development as

1. Jonathan Sterne, *The Audible Past: Cultural Origins of Sound Reproduction* (Durham: Duke University Press, 2003), 7.
2. Ibid., 8.

"wireless telegraphy." The notion that these devices could eventually be used to transmit the human voice, and even music, to not just one receiver, but to large numbers of people in a wide area, was the farthest thing from the minds of the wireless telegraph's pioneers. Radio did not, as Sterne's tongue-in-cheek remark points out, fall fully-formed from the sky; rather, it was developed, refined, and adapted to suit the needs of the changing society that produced it.

In a discussion relating to another area of technological development, "sound reproduction," Sterne identifies a different type of problem with our conceptions about technology and the ways in which we define them. Terms such as "acousmatic" and "schizophonic" sound refer to a split between the original sound and the mechanically-reproduced sound, and Sterne explains that these terms hinge on a set of substantial, and perhaps questionable, assumptions about the nature of sound. These labels are understood by means of a negative definition, creating an artificial binary between sound that is still "attached" to its source, and sound that has been reproduced elsewhere, and is therefore seen as being "detached." This is a problematic distinction, since it assumes the primacy and naturalness of face-to-face immediacy in order to define reproduced sound as unnatural. Sterne explains further,

> They assume that, at some time prior to the invention of sound-reproduction technologies, the body was whole, undamaged, and phenomenologically coherent. By extension, this is to argue that all modern life is disorienting, that the only subject that is whole or at peace with itself is one that is not mediated or fragmented by technology. But the idea of the body's phenomenological unity and sanctity gains power precisely at the moment in its history that the body is taken apart, reconstructed, and problematized.[3]

We find a startlingly similar argument regarding the separation of the recorded and the live embedded in Philip Auslander's work on mediatization. Auslander states that it was the rise of recorded performance that led us to contrast the reproducible artifacts in that category with those in a newly-labeled domain: the "live." He explains,

> Historically, the live is actually an effect of mediatization, not the other way around. It was the development of recording technologies that made it possible to perceive existing representations as 'live.' Prior to the advent of those

3. Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 21.

> technologies, there was no such thing as 'live,' performance, for that category has meaning only in relation to an opposing possibility."[4]

To use another analogy, just as we can only describe darkness as the absence of light, live performance, despite the fact that it was the only means of performance in existence for nearly all of human history, did not need, and in fact could not receive a label until it was contrasted with something else. The ubiquity of this definition-by-opposition is evidenced even by the dictionary's definition of "live" — the second edition of the *Oxford English Dictionary* states that liveness is defined as, "Of a performance, heard or watched at the time of its occurrence, as distinguished from one recorded on film, tape, etc." In contrast, the 1913 edition of the *Webster's Revised Unabridged Dictionary* lists the word "live" (as an adjective) as "Abbreviated from *alive*. See *Alive*, *Life*." The only definitions listed describe liveness as "having life," "being in a state of ignition," "full of earnestness," "vivid," and "imparting power." Any mention of performance is entirely absent. Auslander argues that it is this binarized understanding that has placed live performance and recorded media in direct competition with each other.

Examples of technological developments creating new distinctions in terminology and phenomenology, are certainly more numerous than those identified here, but to mention just one further example from later in the twentieth century, let us turn to a dispute that was repeatedly addressed by Canadian pianist Glenn Gould. In the same way that, in Sterne's and Auslander's arguments, the rise of recording technology prompted defensive reactions from those who felt that the immediate and the live needed to be protected from the mediated and the mediatized, the integration of tape-editing technologies in the mid-twentieth century resulted in strong opposition from those who believed that editorial splicing constituted a grave intrusion into authentic performance in the recording studio. Gould spent a large part of his career contending with the many critics of tape editing, conducting listening experiments, writing essays, and producing albums that made heavy use of tape splicing as an artistic technique. He summed up the defensive position of his opponents as follows:

> Some artists...really do believe that art must always be the result of some inexorable forward thrust, some sustained animus, some ecstatic high, and cannot conceive of the function of the artists could also entail the ability to summon, on command, the emotional tenor of any moment, in any score, at

4. Philip Auslander, *Liveness: Performance in a Mediatized Culture* (London: Routledge, 1999), 51.

> any time...and that the composer, the performer, and above all the listener will be better served thereby."[5]

Prior to the use of splicing as a studio editing technique, there was no option for performances to stop and start, or flow in any direction but forward through time on just such a sustained animus. The need to differentiate between a performance that was captured in a single take and a performance that was the result of meticulous splicing work simply did not exist. Once again, it was the use of a new technology that produced a new binary, and resulted in the need, for some, to defend the "original" set of conditions.

This thesis is a study on the effects of technologically-mediated performance in a culture whose conceptions have been slowly conditioned by these changes over the past century. As the title suggests, it is centered around three themes: mediation, mediatization, and manipulation. For the sake of clarity, I will elaborate here on the use of these terms in this thesis.

The term "mediation," as it will be used in this thesis, refers specifically to the process through which sound or images are captured and reproduced, either simultaneously or separately from their original source, by a mechanical or electronic process. Although "mechanical mediation" could be used to describe setups such as a rolled-up cone being used to amplify the human voice, the working definition for this thesis will exclude scenarios such as these, and will be limited to mediation in which reproduction is involved. This could include wax cylinder recordings, radio broadcasts, microphones, video projection screens, digital recordings, or television shows.

This brings us to a similar-sounding term: "mediatization." Mediatization is a term frequently borrowed from Jean Baudrillard by cultural theorists, often with varying degrees of strictness. Baudrillard himself wrote, "What is mediatized is not what comes off the daily press, out of the tube, or on the radio: it is what is reinterpreted by the sign form, articulated into models, and administered by the code."[6] In other words, that which is mediatized is not restricted to the actual products of the media, whether they be print, visual, or audio, but also includes that which is defined by its relationship to

5. Glenn Gould, "The Grass Is Always Greener in the Outtakes," in *The Glenn Gould Reader*, ed. Tim Page (New York: Knopf, 1984), 359.

6. Jean Baudrillard, *Simulacra and Simulation*, trans. Sheila Glaser (Ann Arbor: University of Michigan Press, 1994), 175-6.

the media and which functions within the cultural parameters that have been set by the media. My use of this term, however, like the definitions of many other writers after Baudrillard, will be more restricted than his, and is intended to indicate that which is delivered through the media.

Finally, the third focal term in this thesis is "manipulation." This term is used to describe the application of technology to alter a performance, and, in the performing and media arts, can include techniques such as magnetic tape splicing, AutoTune, and computer-generated visual effects. Whereas manipulation always implies mediation, the reverse is not necessarily true. A truly live, non-mediated performance cannot be modified; in order for manipulation to take place, the performance, or an aspect of it, must be reproduced (mediated) and altered. It is this absence of manipulation that is often pointed to when performance is given the label of "authenticity." This term will be of key importance in chapter three, where manipulation will be the focus of the chapter's primary case study.

In chapter two, I will examine historical case studies from different disciplines, including theatre, film, and popular music. The examples, and the methodologies used to examine them, draw on resources from musicology, film studies, sound theory, technological studies, performance studies, and cultural theory. Despite the diversity found in this chapter, the discussion is focused squarely on exploring just a few key issues. Most importantly, what is the relationship between the live and the mediatized? Has it always been one of outright opposition? How have these relationships developed and changed over the decades? In order to answer these questions, I will be examining the early years of both radio and TV, and will, as described in the earlier part of this introduction, consider both the causes and the effects from both the cultural and technological sides of the relationship. Further discussion will include case studies from popular music (including issues involving lip-synched performances and authenticity, such as the 2010 Olympic opening ceremonies singing debacle), a consideration of audience perceptions of continuity and legitimate performance in film, and the large-scale concert settings of late-twentieth-century rock and pop performances and their dependence on mediatized communication. These discussions are intended survey the work of several prominent scholars in the fields of cultural and performance studies, and to establish a framework for the consideration of the issues presented later in this thesis.

Chapter three focuses exclusively on one classical musician's contribution to the development of recording technology: that of the philosophical, studio-oriented pianist Glenn Gould. Gould worked during a critical period in the history of recording technology, when techniques such as tape splicing and multitracking were beginning to find their way into work done in the recording studio with increasing frequency. Gould's written and recorded output stands as a particularly attractive case study for any study on recording technology, due to his nature as a prolific writer. Alongside a lengthy catalogue of recorded output, including not only classical piano repertoire, but unique items such as dramatic radio documentaries, Gould published more written work than any other pianist ever has. One of the reasons for this is that Gould, whose image vascillated between 'national hero' and 'nut case' over the course of his career, had a great deal to prove to his critics and detractors. The Canadian pianist faced barrages of disapproval throughout his career for his unconventional musical choices, both onstage and in the studio, and he regularly used essays and scripted interviews to respond to his opponents. This chapter will begin with a focused study of Gould's musical philosophies, as they were evidenced in his playing and his publications, and then move to a discussion of his relationship with recording technology, particularly the use of manipulation in the studio.

Chapter four moves past historical issues in the twentieth century, and turns to an examination of present-day events in the music world. The events tackled in this section are more descriptive and exploratory in nature, due to the fact that we have yet to see what their long-range impact will be, and also because these recent developments have yet to be more than mentioned in passing in academic discourse and require a measure of explanation. Their worth as items for discussion in this context is tremendous, however, due to the fact that even at this early stage, certain aspects of these twenty-first-century developments clearly represent the culmination of many twentieth-century ideas and goals. Included in this discussion is a look at an album released in 2011 that stands as the very first of its kind: Björk's *Biophilia*, released simultaneously as both a standard album and an innovative "app album" for Apple iPad and iPhone. While Björk's project calls the traditional definition and purpose of the album into question, the second case study in this chapter may challenge the very definition of performance itself. The emergence and growing popularity of "vocaloids," complex vocal synthesizer programs which rely on users to create and popularize new songs, has resulted in the growth of an entirely new brand of popular music performance. The discussion in this chapter is aimed at increasing an understanding of how technology continues to respond

to the changing demands of today's listeners, and how listeners are in turn conforming to the demands that these new innovations are placing on them.

The multidisciplinary nature of the project is an effort to draw together related issues from outside the boundaries of musicology, as asking the same questions about situations from different disciplines often produces results that, when set side by side, provide unique and valuable information about the areas of overlap between the two. Although the subject matter is broad, the case studies for this project are carefully chosen in order to best interact with the critical issues in each area, and to most effectively point out the key areas of overlap. Over the course of the different decades explored in these case studies, it is my hope that the reader will see the progression of the themes of manipulation, mediation, and mediatization, and understand the cultural conditions that have propelled them forward.

Chapter 2

Mediatization in Phonography and in the Concert Experience

When the phonograph was still in its infancy, Thomas Edison penned a list of ten possible functions for the device. The list appears to be simply the results of Edison's contemplations, rather than a solid set of predictions, and considers possibilities in many different areas of society. It includes:

1. Letter writing and dictation without the aid of a stenographer
2. Phonographic books for the blind
3. The teaching of elocution
4. Reproduction of music
5. The "family record"—a registry of sayings, reminiscences, etc., by members of a family in their own voices, and the last words of dying persons
6. Music boxes and toys
7. Clocks that should announce in an articulate voice the time for going home, going to meals, etc.
8. The preservation of languages by exact reproduction of the manner of pronouncing
9. Educational purposes such as preserving the explanations made by a teacher, so that the pupil can refer to them at any moment, and spelling or other lessons placed upon the phonograph for convenience in committing to memory

10. Connection with the telephone, so as to make that instrument an auxiliary in the transmission of permanent and invaluable records, instead of being the recipient of momentary and fleeting communications

While subsequent years saw every one of these potential uses of recording technology realized, an incredible trait of Edison's list is that the possibilities imagined in it were never inherent in the technology itself, and it was only under the influences of society's needs and development that each suggestion became both feasible and useful. Early incarnations of the phonograph were capable of neither quality reproduction nor long-term storage—necessary conditions for any of the above tasks. Wax cylinder recordings wore out quickly. The pliable nature of the wax that enabled grooves to be cut into its surface also meant its eventual decay. The very act of playing back the sound recorded on the cylinder eroded the quality of the recording. Furthermore, the phonograph recordings about which Edison was brainstorming were even less capable of long-term use than their later wax-cylinder relatives. These first machines recorded onto tin foil, and even removing these fragile records from the machine that recorded them resulted in the loss of their replayability. The written proclamations from the end of the nineteenth century that touted the infinite reproductive powers of the phonograph did not reflect the reality of the device's capabilities, but rather hopes for an eventual reality. An 1877 issue of *Scientific American* stated,

> That the voices of those who departed before the invention of the wonderful apparatus described in the letter given below are forever stilled is too obvious a truth; but whoever has spoken or whoever may speak into the mouthpiece of the phonograph, and whose words are recorded by it, has the assurance that his speech may be reproduced audibly in his own tones long after he himself has turned to dust. The possibility is simply startling. A strip of indented paper travels through a little machine, the sounds of the latter are magnified, and our great grandchildren or posterity centuries hence hear us as plainly as if we were present. Speech has become, as it were, immortal.[1]

As we know now, recording technology did eventually develop the capacity to preserve sound in increasingly permanent ways, and came to be closely associated with the archiving of sound created by humans, but the development of this medium was steered

1. "A Wonderful Invention—Speech Capable of Indefinite Repitition from Automatic Records," *Scientific American* 304 (1877).

strongly by the cultural needs of the era that fostered its growth, and not the other way around. The idea of a medium is completely malleable, and is only defined by the set of social connections that is attached to it by repeated association. In Jonathan Sterne's words,

> A medium is a recurring set of contingent social relations and social practices...As the larger fields of economic and cultural relations around a technology or technique extend, repeat, and mutate, they become recognizable to users as a medium. A medium is therefore the social basis that allows a set of technologies to stand out as a unified thing with clearly defined functions.[2]

Edison's list shows us a number of different ways in which sound recording could have developed. Radio, too, underwent an evolution over the first few decades of its existence, only being used for broadcasting more than thirty years after its invention. Early in its existence, the telephone was experimented with as a means of broadcasting before its perception as a point-to-point medium was solidified. The phonograph itself was kept in business offices as a memo recorder, and in post offices as a device for recording messages which would then be mailed as audio telegrams.[3] Technology does not precede medium; medium precedes technology, and is moulded by its social context.

Beginning with an examination of how some of the notable works in the literature of the field from the twentieth-century agree and disagree, followed by further exploration of the issues surrounding the development of early sound recording, and concluding with a discussion of some of the contentious questions associated with late-twentieth-century music production, this chapter will focus on the idea of culture as the driving force behind the development and application of technology to sound media. Specific case studies have been chosen to illustrate how this idea has been demonstrated at various points in the past century, and will include the discussions on the development of the capacity for mass reproduction in the recording world, issues of liveness and authenticity in music performance, and the implications of studio editing techniques in modern pop and rock music.

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2. Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 182.
3. Ibid., 192.

2.1 Literature Review

Any study of media and recording must, by necessity, reference one of the earliest considerations of the subject, *The Work of Art in the Age of Mechanical Reproduction.* Walter Benjamin's 1935 essay advances the concept of an "aura," with which a work of art is endowed by its creator, and is a property of both the indivisibility of the artwork and the distance between it and the viewer.[4] Prior to the age of mechanical reproduction, a person who wished to contemplate a work of art had to travel to its physical location, and could encounter its aura only in its presence. With the arrival of reproduction technology (including photography, sound recording, and film), however, the work of art was stripped of its authority, authenticity, and aura, and became indistinguishable from its copies, or, in the case of photography and film, existed only as copies without an original. For Benjamin, these reproductions, instead of standing apart from their observers, meet viewers on their own unique terms, and acquire an "exhibition value" that can be absorbed in a shared way by mass society. Reproduction and mediation technologies have changed significantly since Benjamin wrote his essay, and this early conception of the results of mechanical reproduction and mass consumption will be contrasted with the more recent perspectives later in this chapter.

Other key articles, books, and essays from the earlier part of the twentieth century include work on film and radio by Rudolf Arnheim, a large body of work in cultural theory and aesthetic philosophy by Theodor Adorno, Roland Gelatt's early account of the history of the phonograph from "tin foil to high fidelity," and Canadian scholar Harold Innis' work on the assumptions and power structures created by communications technology, *The Bias of Communication.* Many of the works from this era engaged in equal shares of speculation about the future of these newly-developing technologies, critical examination of the changes in society that they deemed to be the results of these inventions, and discussion of the impact of the spread of the new media.

The latter half of the century saw an explosion of both technological advancements and academic discussion of the new developments. The development and commercial use of magnetic tape recording technology replaced larger, bulkier playback media, and the use soon after of splicing techniques drew curiosity as well as censure from musicians and

4. Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," in *Illuminations*, ed. Hannah Arendt, trans. Harry Zohn (New York: Schocken, 1969).

critics. Studio production techniques became increasingly complex, particularly in the popular music world, and artists such as The Beatles withdrew from public performance to become wholly studio-based artists. Scholars were drawn to ask questions about the changing nature of performance, and, in the face of increasing dependence on recorded media, to question the stability of our understanding of liveness itself. Larger concerns included the changing nature of individuals' relationships with new technologies, with other individuals, and with society itself. 1964 saw the publication of Jacques Ellul's *The Technological Society*, a treatise which described members of society as losing their individual autonomy to the authority of a force Ellul called "technique": the use of mass media in propaganda, advertising, and other persuasive media forms. Ellul claimed that critical thinking abilities in society were deteriorating, and that the ultimate result of the pervasiveness of mass media would be the eventual homogeneity of thought under the rule of technocrats—authority figures wielding "technique" as a means of subjugating individual thought.[5]

With the 1970s and 1980s came the postmodern turn, and a prominent group of new thinkers who reflected back on the technological developments of the past generations from a new vantage point, and looked ahead to the future with fresh perspectives and hypotheses. French social theorist Jean Baudrillard used Marxist models of exchange value and market growth as a starting point for his theories, but differed from Marxism in that he rejected the idea that production was the driving force behind economy. Primarily because of his objection to the fact that Marx's structure then relegated culture and signification to the realm of economic activity, Baudrillard posited instead that it was consumption that was the main social force. According to Baudrillard, the four ways in which an object can carry value are through:

1. The functional value of an object, or its instrumental purpose
2. The exchange value of an object, or its economic value
3. The symbolic value of an object, or its subjectively-assigned value in relation to another subject
4. The sign value of an object, or its relative value within a system of objects

5. Jacques Ellul, *The Technological Society* (New York: Vintage, 1964).

Baudrillard disagreed with Marx's three stages of value as laid out in *The Poverty of Philosophy* only in that he believed that Marx had greatly underestimated the significance of the gap between the second and third types of value,[6] and he proposed instead that the explosion of cultural commodities, or "signs," produces the fourth tier: an economy called the "political economy of the sign."[7] Later in his life, Baudrillard cut his ties with Marxism, and changed the direction of his efforts to work on mass media, communications, and mediation. His 1981 work, *Simulacra and Simulation* advanced his ideas about the economy of the sign further, and argued that modern society has become so saturated with signs that our day-to-day experiences are completely removed from reality. Baudrillard reflects back on the ideas of Marshall McLuhan, was a foundation for later work by thinkers such as Jean-Francois Lyotard and Frederic Jameson, and is one of the key figures in postmodernist thought in communications and social theory.

Outside the realm of theoretical thought, academic research gained substantial momentum in areas such as film studies, popular music studies, and performance studies during the last few decades of the twentieth century. A large body of edited volumes have accumulated that address particular issues in these fields of study in a concentrated way. Rick Altman has edited two such collections in the area of film and sound studies, the first in 1980 and the second in 1992. His own comparison between the two volumes shows the changes in the field in just over a decade.

> As influential as *Cinema/Sound* may have been, a decade's distance reveals the limitations of the articles that it contains. With few exceptions, these articles treat cinema as a series of self-contained texts... Heavily marked by the project of semiotics, most of the articles aim at describing the functioning of sound in a particular textual situation. ...Published in 1980, *Cinema/Sound* clearly bears the stamp of its text-oriented era.

Altman and the contributors to his 1992 volume make a substantial effort to approach cinematic objects as three-dimensional, contextualized objects that are viewed subjectively by individual audience members, rather than two-dimensional, objective texts. Late-twentieth-century publications in other areas headed in similar directions. In the

6. Steven Connor, *Postmodernist Culture: An Introduction to the Theories of the Contemporary* (Oxford: Blackwell Publishers, 1989), 51.

7. Jean Baudrillard, *The Mirror of Production*, trans. Mark Poster (New York: Telos Press, 1975), 121.

field of theatre and performance studies, *Liveness*, Philip Auslander's in-depth examination of liveness versus mediation, focuses its analysis primarily on the impact of media technologies on their audiences. Addressing concerns involving television, live theatre, rock music, and MTV, Auslander even includes a chapter devoted to a consideration of courtroom proceedings as a form of performance, and discusses the unusual resistance of this area to mediation. *Liveness* presents a challenge to its readers: in today's mediatized world, is there really a difference between recordings and live performances?

2.2 'Canned' Sound

As the introduction to this chapter alluded to, the early phonograph did not arrive in nineteenth-century society with its function set in stone, and its future certain. Technological development is fully explained only in its social context, and the development and use of sound recording was no different. Although it seems straightforward to connect our modern-day focus on mass reproduction and commoditization with the early possibilities inherent in the phonograph, the journey wasn't such a straight line as we might think. On the occasion of his gramophone's first public presentation, Emile Berliner spoke about the possibilities of the new invention. His speech, as it was reproduced in *The Journal of the Franklin Institute* in 1888, shows a sense of open-endedness with regard to the gramophone's potential applications.

> Those having [a gramophone], may then buy an assortment of phonautograms, to be increased occasionally, comprising recitations, songs, and instrumental solos or orchestral pieces of every variety.
> In each city there will be at least one office having a gramophone recorder with all the necessary outfits. ...At the wide opening of the funnel will be placed a piano, and back of it a semicircular wall for reflecting the sound into the funnel. Persons desirous of having their voices "taken" will step before the funnel, and, upon a given signal, sing or speak, or they may perform upon an instrument...
> ...There is another process which may be employed. Supposing his Holiness, the Pope, should desire to send broadcast a pontifical blessing to his millions of believers, he may speak into the recorder, and the plate then, after his words are etched, is turned over to a plate-printer, who may, within a few

> hours, print thousands of phonautograms on translucent tracing paper. The printed phonautograms are then sent to the principal cities in the world, and upon arrival they are photo-engraved by simply using them as photograph positives...
>
> Prominent singers, speakers, or performers, may derive an income from royalties on the sale of their phonautograms, and valuable plates may be printed and registered to protect against unauthorized publication."[8]

The nature of Emile Berliner's speech supports this perspective, showing the way in which, at that early stage in its development, even the gramophone's inventor had no firm plans for its future, but instead, imagined a wide range of possible uses, some of which never caught on, and some of which we did see, albeit not in an identical fashion. Why, then, did we ultimately come to associate the phonograph and its offshoots with the reproduction and replaying of music? Jonathan Sterne, whose tome on the history of sound recording, *The Audible Past*, has already been mentioned in this chapter, treats the story of recording technology's development from a perspective that inverts the approach taken by many earlier historical accounts. Rather than taking a top-down, technologically-driven approach, Sterne addresses his subject by arguing that it was the culture of Victorian society that steered the course of recording technology's early development. Sterne's account of recording technology's early years shows that it was the focus of the Victorian psyche on death and preservation that led to the phonograph's eventual association.

> If there was a defining figure in early accounts of sound recording, it was the possibility of preserving the voice beyond the death of the speaker. ...Despite the ephemerality of the recordings themselves, death and the invocations of the "voices of the dead" were everywhere in writings about sound recording in the late nineteenth and early twentieth centuries. ...The chance to hear "the voices of the dead" as a figure of the possibilities of sound recording appears with morbid regularity in technical descriptions, advertisements, announcements, circulars, philosophical speculations, and practical descriptions.[9]

8. "The Gramophone: Etching the Human Voice," *Journal of the Franklin Institute* 75/6 (1888): 445-6.

9. Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 287-9.

But why "the voices of the dead"? Why the focus on long-term preservation, even when the expectations touted by these advertisements and descriptions far exceeded reality at the time? Sterne's theory is one of bottom-up determination of technological function, and it necessitates a set of social conditions that caused late-nineteenth-century society to fixate on these ideas. In the decades prior to the invention of the earliest phonographs, Sterne describes what he refers to as a "culture of preservation,"[10] where the advent of canning technology the development of enbalming techniques were prominent aspects of Victorian culture at the time. The canned food industry expanded rapidly in the thirty years prior to the patenting of the phonograph in 1878, spurred by demand from soldiers in the civil war, gold miners in California, and a rapidly urbanizing society. With these changes permeating society, we can see Sousa's choice of terminology in his famous "canned music" quotation as a fascinating product of its day that was laden with connotations. Sterne argues that Sousa's analogy would have held specific negative connotations for his audience, bringing to mind the comparatively bland, stale taste of the produce that had been chemically altered in order to preserve it.[11] In a similar way, "canned" music was altered from its original state in order to be preserved in a recorded state.

Although enbalming was not a new practice in the nineteenth century, the development of increasingly effective techniques gained importance, as the social function of the preserved body became a more significant part of life. On certain occasions, bodies were required to lay in state for a week after death, or to be transported long distances before burial, or even simply to maintain a pleasant appearance for a period of time before an open-coffin funeral was held. Preserving the bodies of the dead served an important social function during this era. In a way similar to Walter Benjamin's perspectives on the aura of the work of art, the bodies of the dead, particularly of nobility, possessed an indivisible aura as well, and it was this for this reason that the preservation of a body was important in Victorian culture. Within the context of a culture which had new forms of preservation becoming a part of life, and for whom a focus on death was a more prominent part of society, the drive to preserve the voice after the body had decayed was a natural extension. "The nineteenth century's momentous battle against decay offered a way to explain sound recording. The ethos of preservation described and prescribed

10. Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 292.
11. Ibid., 293.

the cultural and technical possibilities of sound recording."[12]

There remains one more important parallel between the practice of enbalming and the practice of recording that is of great importance in understanding the development of the function of recorded music. Although the most important aspect of enbalming technique is the physical preservation of the body, once the decay is halted, morticians also perform aesthetic "touch-ups" in order to present a more agreeable sight. The physical presence of the preserved corpse itself is not the only important result of the enbalming process. The morticians' techniques were also important because they enabled a more pleasant image to be presented to the public than may have originally been the case. In the exact same way, recorded sound, even early recorded sound, was not the preservation of the sound event in its original state. First of all, just as the preserved corpse was, functionally, a cleaned-up, remaindered representation of the person who previously inhabited the body, and not the person himself, a sound recording merely captured one aspect of the performance it sought to reproduce, and presented this artifact separately from the natural state of the performance. Secondly, the recording was never an objective reproduction of the sound event. The recording technicians, in a manner similar to enbalming technicians, carefully prepared a favourable situation for the recording, so that an aurally 'beautified' version of the performance could be captured. Unnatural physical arrangements of instruments and phonographs, strategic placement of vocalists, and specially-shaped rooms were just a few of the techniques used to produce recordings that sounded more pleasing to the ear.[13] Even if the recording technicians had not taken any special measures, there is simply no objective way in which to approach the process of recording, and any object made by capturing a sound event is a product of the biases and conditions of the way in which is was captured. Recordings do not objectively capture a live event; they create a unique recorded event.

Given this fact, when we compare recording practices in the early twentieth century with the later twentieth century, we can clearly see that this tendency is increasing, with a strong trend towards recordings becoming less documentary and more constructed in nature, to use Paul Theberge's terms.[14] Theberge has argued for a consideration of com-

12. Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 292.

13. Geoffrey Payzant, *Glenn Gould: Music and Mind* (Toronto: Van Norstrand Reinhold, 1978), 112.

14. Paul Theberge, "The 'Sound' of Music: Technological Rationalization and the Production of Popular Music," *New Formations* 8 (1989): 99–111.

plex, late-twentieth-century studio production techniques as a continuation of this tendency towards increased manipulation, and theorists in other disciplines have extended the proposition to explain trends in radio, television, and cinema.[15] If we accept the fact that developing technologies are bending the media arts further away from documentary uses and closer to construction uses, then, according to Sterne's argument, there exists an underlying need in contemporary society that demands continued development in this direction. "To understand even the simplest sonic or musical practice, we have to open it out into the social and material world from which it comes."[16] So then, we must ask: what characteristics of modern culture and thought have propelled recording technology in the direction it is currently hurtling? What does modern media say about the society that produces and consumes it?

2.3 Is It Live?

"We had to make that choice. ...We combined the perfect voice and the perfect performance."[17] It was during a final rehearsal for the opening ceremonies of the 2008 Beijing Olympics that a member of the Chinese Politburo made the decision to play a pre-recorded version of a performance by seven-year-old Yang Peiyi, who won the opportunity to sing in the ceremonies in a talent competition[18], substituting her presence on stage with nine-year-old Lin Miaoke, who was deemed "cuter," and thus the better visual choice for the internationally-broadcast ceremonies. Chen Qigang, the music director for the production, told Beijing Radio, "It was fair for both Lin Miaoke and Yang Peiyi. ...The audience will understand that it's in the national interest."[19] Miaoke's lip-synched performance was not the only aspect of the opening ceremonies that included a little bit of substitution. The footage of the famous footprint fireworks that led from Tiananmen Square to the Olympic Stadium were not actually live, but a com-

15. Steve Wurtzler, "She Sang Live, but the Microphone was Turned Off: The Live, the Recorded, and the Subject of Representation," in *Sound Theory Sound Practice*, ed. Rick Altman (New York: Routledge, 1992), 88.

16. Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*, 338.

17. "Young Olympic singing star didn't really sing," The Associated Press, accessed June 2012, http://www.msnbc.msn.com/id/26153578.

18. "Revelation About Singer Leaves That Syncing Feeling," The Washington Post, accessed June 2012, http://www.washingtonpost.com/wp-dyn/content/article/2008/08/13.

19. "Young Olympic singing star didn't really sing," The Associated Press.

puter animation. The *Beijing Times* ran an article that included an interview with the computer graphics specialist who produced the simulation, who said he was "pleased with the result." The graphics specialist explained how effects such as camera shake and atmospheric haziness had been included to make the substitution even more convincing. "Most of the audience thought it was filmed live—so that was mission accomplished."[20] The reaction from the public to the ceremonies' substitutions, however, was certainly less than pleased. Reactions poured in to online news sites, condemning the production as a "fake," a "scandal," and a "dupe." Others shrugged off the alleged scandal, pointing out that it was just another instance of benignly-standard lip-synching practice, but directed criticism towards the political nature of the singer-substitution instead.[21]

Pre-recorded performance and lip-synching in large stadium events has indeed become common practice in recent decades, and the Beijing debacle was not even an occurrence unique to the Beijing Games. Not only was Pavarotti's 2006 performance at the Turin Olympics lip synched, but the entire orchestra behind him was miming their performance as well. Furthermore, the video being watched by millions of viewers around the world was not even the "live" lip synching that those who attended the event witnessed, but prerecorded mimicry that was videotaped several days earlier, in which the conductor, the orchestra, and Pavarotti all feigned their performances for the camera. The truth of the performance was, in fact, a well-protected secret that was unknown to the public until the publication of a book by Magiera, the conductor of the Turin performance, and Pavarotti's longtime collaborator. "It would have been too dangerous for him, because of his physical condition, to risk a live performance before a global audience. ...Pavarotti's great career therefore ended with a virtual performance," Magiera writes.[22] In his account of this final performance by Pavarotti, the conductor describes how Pavarotti recorded his portion of the performance in his own studio, after receiving several versions of the orchestral accompaniment that had been recorded earlier. After the version to be used for the television broadcast had been mimed and videotaped, on the night of the opening ceremonies themselves, the entire group of performers simply ran through their simulated motions again for the live audience. "The orchestra pretended the play for the audience, I pretended to conduct, and Luciano pretended to sing. The effect was wonderful."[23]

20. "Olympic Fireworks Faked For TV," Sky News, accessed June 2012, http://news.sky.com/story/625578.

21. "Revelation About Singer Leaves That Syncing Feeling," The Washington Post.

22. Leone Magiera, *Pavarotti Up Close* (Milan: Ricordi, 2008).

23. Ibid.

In a sense, this set of substitutions was a deception on an even greater scale than that of the Beijing ceremonies just two years later: it was fakery not just by a single singer, but by an entire orchestra, conductor, and famous operatic tenor, and just as with the fireworks, pretaped footage was aired in place of the live, in an elaborate scheme to create as powerful a presentation as possible. Perhaps the outrage at the Beijing scandal was fueled by the political nature of the decisions, as well as Western racism and suspicion of the motives of the communist government. Perhaps it was sharpened by the recency of the events, as opposed to the Pavarotti performance, which was only unmasked years afterwards. Perhaps it was even people's sense of injustice being tinged with the substitution of one person for another who was deemed better-looking. At the root of the public's outrage, however, was the fact that the viewers expected authenticity and transparency, were led to believe in a performance that did not correspond with reality, and took offense at the incongruity.

Before evaluating a possible framework within which these events can be categorized and understood, this section will present a final example of a slightly different kind. An article by Steve Wurtzler analyzes a related situation that was also given the label of 'scandal' at the 1991 Super Bowl, when Whitney Houston gave a teary-eyed wartime performance of the American national anthem for a packed-out Tampa Stadium and TV audience. Viewers' emotional, patriotic responses turned to outrage after it was revealed that Houston had lip-synched her game day performance. Houston's publicists scrambled to control the fallout in a series of statements released shortly afterwards. "She sang live, but the microphone was turned off," Dan Klores explained. "It was a technical decision, partially based on the noise factor. This is standard procedure at these events." Sound engineer Larry Estrin stated that the technique was "designed to provide the audience with the finest possible performance."[24] In a revealing statement that showed the nature of Houston's publicists' fears, Klores added, "This is not a Milli Vanilli thing."[25] Wurtzler disagrees. "Despite Klores's insistence to the contrary, Houston's performance was indeed a 'Milli Vanilli thing.' Like the earlier scandal...it demonstrates the collapse of the discursively produced categories of live and recorded."[26] Houston's performance

24. Daily Iowan, 3/1 (1991): 2B.

25. Ibid.

26. Wurtzler, "She Sang Live, but the Microphone was Turned Off: The Live, the Recorded, and the Subject of Representation," 87-8.

was problematic for viewers because of the fact that they believed they were viewing a fully live performance. Social and economic practices fuel the need for distinctions between the live and the representational, and performances such as Houston's are not so easily categorized. Historically, reproductions and live performances have been mutually exclusive. The attendees who witnessed Whitney Houston's Super Bowl performance believed they were experiencing a live performance, but the reality of the event lay in a grey area, where the immediacy and intimacy of the live and the security and replayability of the recorded intermingled in a way that is difficult to categorize. For the viewers who watched the event via television broadcast, and actually were hearing an engineered mix of Houston's live vocals and the prerecorded ones together, the relationship becomes even more complex.

Wurtzler has proposed a way in which we can categorize these performances that no longer fall neatly within the old binaries. In his system, an experience can be categorized according to its relationship with its audience. A fully live experience is defined by two criteria: "spatial co-presence" and "temporal simultaneity"; a representation of a live experience, or a reproduction, is characterized by exactly the opposite: "spatial absence" and "temporal anteriority."[27] The challenge of contemporary categorization lies in the fact that the two characteristics of either the live or the reproduced are no longer mutually inclusive—an experience can consist of one characteristic of the live and one characteristic of the reproduced. Wurtzler classifies the Whitney Houston example as being temporally simultaneous (an aspect of the live) and spatially absent (an aspect of the reproduced). The opposite of this blended experience would be one that was characterized by both spatial copresence and temporal anteriority: telephone, and live radio or television broadcasts would fall under this category. According to Wurtzler, performances that bear both qualities either from the category of live performance or the category of recorded performance enjoy a privileged status in modern culture.[28] Performances that have characteristics divided between the two still generate a level of discomfort, due to their perception as lacking unity and consistency. The reason Whitney Houston's publicists and the Beijing Olympic coordinators needed to step in and issue statements rationalizing the conditions of her Super Bowl performance was that the audience believed they were witnessing a performance that was temporally and spatially

27. Wurtzler, "She Sang Live, but the Microphone was Turned Off: The Live, the Recorded, and the Subject of Representation," 89.

28. Ibid., 90.

unified, believed in the authenticity of the emotions displayed by Houston and the sincerity of Lin Miaoke, and believed they were experiencing a unique moment of experiential connectedness with the performers, and for them, the revelation that there was a disconnect between the spatial and temporal integrity of the moment shattered those beliefs.

Estrin's remark about prerecorded performance being designed to provide "the finest possible performance" is a significant one. Recent decades have seen the near-constant increase in the use of studio manipulation techniques in music production. Multi-track recording, samplers, looping, drum machines, and AutoTune have worked their way into our collective ears so thoroughly that their presence rarely stands out to the average listener. Yet why is it that while heavy alterations are accepted so quickly on a studio album, listeners have wildly different standards for live performance? When listeners are willing to tolerate heavy modification for the greater good of "the finest possible performance" when purchasing a CD, why are they unwilling to accept the same alterations in live performance, expecting completely different feats of the very same artists when they are performing onstage?

In answer to this question, performance scholars such as Robert Philip have argued that mediation and manipulation have become so engrained in our culture that they have altered our perception of human performance, reshaping reality and expectations to demand unprecedented levels of perfection and immediacy. Philip's landmark work on the relationship between performance practice and recording technology documents the dramatically-shifting tastes and standards of both performers and audiences before and after recording technology was popularized. According to his detailed studies of early orchestral recordings, expectations of accuracy and precision were substantially lower a century ago than they are today.[29] Accounts show that even high-profile performances could be rather inadequately-rehearsed, sloppily-performed affairs—and it shows in the recordings. The interesting fact, however, is that audiences were entirely accepting of these performances, which, to modern ears, would sound catastrophic. Note-perfect performances were not the imperative they have become today, and the shift towards today's increased focus on accuracy has come at a cost: as the decades passed in the twentieth century, Philip found that what vanished along with the sloppiness found in the earlier recordings was the spirited freedom of interpretation and distinctive style that character-

29. Robert Philip, *Performing Music in the Age of Recording* (New Haven: Yale University Press, 2004).

ized the playing of different soloists.[30] Individuality had essentially been neutralized by the globalization of technique, and a shifting emphasis from artistic freedom to clinical precision. Expectations of live performance have risen to unprecedented heights, driven by our cultural obsession with perfection, and our ability to attain it on studio albums which can be polished, edited, and enhanced beyond any achievable live reality.

2.4 Value Systems in Modern Performance

Steven Connor has explained that the problem is no longer that the live and the recorded are opposites, but that they have become entangled in new ways.[31] Not only have manipulated recordings altered our perceptions of live performance, but their techniques have worked their way gradually into live performance as well, resulting in hybridized approaches that have shaped entire genres. Mediatization and mediation have become key issues in modern live performance, particularly in the rock and pop worlds. The twentieth century has seen an inversion of priorities and privileges when it comes to live rock and pop performances and studio albums. Several decades ago, a performer would undertake a concert tour in order to promote a new album, usually expecting that the tour itself would result in some monetary loss, but hoping that audience members' experience at the live event would result in their purchasing the performer's album.[32] In this way, the original (the live performance) created a desire for the copy (the record album). Recent years, however, have seen an inversion of that system. Today's concerts, while they are still centered around the promotion of a new album, cater to audiences who are already very familiar with the album, and have paid exorbitant prices for the opportunity to experience the sensory spectacle of the concert performance and a moment of spatial closeness with the stars. The system is now completely reversed: the copies create a desire for the original. Connor sums up this change, writing, "What emerges from all this is...the inversion of the structural dependence of copies upon originals. In the case of the 'live' performance, the desire for originality is a secondary effect of various forms of reproduction."[33] In other words, despite the fact that purchasing a recording creates the perception that the consumer owns or controls a piece of a musician's work, a re-

30. Philip, *Performing Music in the Age of Recording*.
31. Connor, *Postmodernist Culture: An Introduction to the Theories of the Contemporary*, 172.
32. Simon Frith, *Sound Effects: Youth, Leisure, and the Politics of Rock* (New York: Pantheon, 1981).
33. Connor, *Postmodernist Culture: An Introduction to the Theories of the Contemporary*, 175.

production actually serves the function of emphasizing its shortcoming when compared to the "real" experience of the live. The audiophile's pursuit of higher fidelity is tied to the desire to come closer to the original, live sound event.[34] According to Baudrillard, these tendencies can be seen as a product of our society of *simulacra*, where the 'real' is increasingly sought amidst a deluge of imitations and images, resulting in "an escalation of the true, of the lived experience."[35] Connor adds, "The intense 'reality' of the performance is not something that lies behind the particulars of the setting, the technology and the audience; its reality consists in all of that apparatus of representation."[36] The "representation" Connor is referring to is the manufactured intimacy that invariably accompanies today's live rock and pop performances in the form of huge video screens, amplifiers, closeups of performers' expressions and actions, and the careful simulation of the album versions of songs or the dance moves from music videos that fans are familiar with. Baudrillard concurred, arguing that in a society of representations, the 'real' is continuously being produced as an "intensified version of itself," as "hyperreality."[37] "It is for this reason that audiences of 80,000 or more now regularly attend concerts to watch videos, albeit 'live' videos; the ecstasy of experience is turned into...a fantastic, barely-controllable excess of images and representations."[38] In the same way that live concerts have become an example of this hyperreality, live sports events now include mediatized representations as an essential part of the live. As television broadcasts began to compensate (or, as Wurtzler claims, "overcompensate"[39]) for the lack of spatial co-presence by employing multiple camera angles, high-definition replays, and live commentary, the live experience of a game itself actually came to be degraded by the hyperreality of the television representation. Closeups and multiple replay angles on arena scoreboards have become essential in reproducing the artificial intimacy of the mediatized—which, ironically, was originally setting out to reproduce the true intimacy of liveness itself.

The ultimate result of this confusing value system in which the live and the mediatized are inextricably combined and interrelated, is that the live is no longer the untainted,

34. Wurtzler, "She Sang Live, but the Microphone was Turned Off: The Live, the Recorded, and the Subject of Representation," 88.

35. Baudrillard, *Simulacra and Simulation*, 12.

36. Connor, *Postmodernist Culture: An Introduction to the Theories of the Contemporary*, 175-6.

37. Ibid., 174.

38. Ibid., 175.

39. Wurtzler, "She Sang Live, but the Microphone was Turned Off: The Live, the Recorded, and the Subject of Representation," 92.

authentic experience that consumers are seeking. The saturation of our culture with simulacra and representations gave rise to a cultural need for immediacy and intimacy with the 'original.' The problem lies in the fact that the mediatization that originally set liveness apart as its opposite has now infused and defined the live in such a way that it cannot be experienced as it once was. One of Baudrillard's most profound examples of this change is in an analogy drawn from the story of the Tasaday Indians. The Tasaday tribe's history became riddled with controversy a decade after its apparent discovery, but as the story from the early 1970s went, a tribe of natives, who had allegedly had no contact with the developed world until they encountered the edge of the modernized world at the edge of the Philippine jungle, were found by researchers to still be living in stone-age conditions. Interaction with this 'preserved' people group was brought to an abrupt halt with the Philippine government's decision to return the Tasaday Indians to the jungle and prevent modern society's interaction with them, in an effort to preserve their culture. The irony of the situation was that by giving them back to their original conditions and protecting them from the developed world, the government was essentially creating a "scale model" of pre-scientific society by forcibly sheltering them. Baudrillard writes,

> The Indian thereby driven back into the ghetto, into the glass coffin of virgin forest, becomes the simulation model for all conceivable Indians *before ethnology*. The latter thus allows itself the luxury of being incarnate beyond itself, in the 'brute' reality of these Indians it has entirely reinvented — Savages who are indebted to ethnology for still being Savages: what a turn of events, what a triumph for the science which seemed dedicated to their destruction! Of course, these particular Savages are posthumous: frozen, cryogenised, sterilised, protected to *death*, they have become referential simulacra, and the science itself of a pure simulation.[40]

The analogy here is that we have done the exact same thing with live performance. Connor refers to this as an "erotic lack,"[41] and Auslander uses identical terminology in his discussion of live theatre.[42] In the age of reproduction, the live remains separate from the mediatizated only with great intentionality, and despite these efforts, the live is still defined by its opposition to the media. Of theatre, Patrice Pavis writes, "Paradoxically,

40. Baudrillard, *Simulacra and Simulation*, 15.
41. Connor, *Postmodernist Culture: An Introduction to the Theories of the Contemporary*, 174.
42. Auslander, *Liveness: Performance in a Mediatized Culture*.

it is during the age in which technical reproducibility is nearing perfection, that one becomes aware of the nonreproducible and ephemeral nature of theatre."[43] It is our cultural drive to return performance to its roots of authenticity and intimacy that has resulted in the trends of contemporary performance: period instrumentation, historical/contextual interpretation of theatre scripts and musical scores, live albums, and acoustic sets. Just as the Tasaday Indians were encased in a "glass coffin" by their imposed separation from modern society, even live performance is now defined by its context in a culture that has been thoroughly mediatized. The relationship between the live and the mediatized remains volatile, but in an age where the mediatized holds substantially greater authority as a cultural force, live performance will continue to be evaluated by comparison.

43. Patrice Pavis, "The Classical Heritage of Modern Drama: The Case of Postmodern Theatre," trans. Loren Kruger, *Modern Drama* 29:1 (1986): 16.

Chapter 3

Glenn Gould: Manipulation and Atemporality in the Studio

"I suppose premise number one is to try to forget that I'm playing the piano. I don't want to be aware that anything specifically pianistic is being done in order to bring out whatever structural design I have in mind."[1]

At the core of Glenn Gould's music-making lies one fundamental idea: that music, in its truest form, exists primarily as a mental construct, and only secondarily as sound, action, or expression. This premise steered every aspect of his musical work, from his approach to performance, to his work in the studio. This chapter will discuss Gould as a unique case study—as a musician who emphatically abandoned the concert tradition for the sake of single-mindedly pursuing what he believed would be the technological future of music. In the first section, I will begin with a discussion of the ways in which the term 'idealism' has been applied to Gould's work (most notably by Geoffrey Payzant), continue by connecting the implications of Gould's idealism to its results in his performance practice, and conclude with an analysis of the ultimate outcome of this approach. The second section of this chapter will draw from Gould's prose writings to outline his ideas about recording technology, discuss the ways in which they conflicted with the opinions of other musicians during his lifetime, and finally, to consider Gould's forecast for the musical future, especially his predictions about the roles of performers and listeners and the role of technology in music.

1. Jim Aikin, "Glenn Gould," *Contemporary Keyboard* 6/8 (1980): 25.

3.1 Escaping Time

A prolific writer and passionate musical advocate, few performers' written output begins to even approach Gould's in terms of sheer volume. Although often bombastic and inflammatory, as in his caustic remarks about the composers he disliked (his opinion of Chopin, for example: "I don't think he is a very good composer. I played Op. 58 when I was younger, just to see how it would feel. It didn't feel very good, so I've never bothered to play any more Chopin.")[2], or his controversial opinions about live performance (such as the GPAADAK: the Gould Plan for the Abolition of Applause and Demonstrations of All Kinds[3]), some of the best insights we have into Gould's work are found in essays, interviews, and liner notes by Gould himself. Despite his tendencies towards bad puns, extended jokes, and verbosity, Gould is usually his own best expositor, and the scholarly work that began examining his work shortly before his death in 1980 would have been dramatically less successful were it not for Gould's efforts in explaining his own musical ideas. The first book-length study on Gould, "Glenn Gould: Music and Mind" was published by Geoffrey Payzant in 1978.[4] Payzant's work was primarily philosophical in nature, and examined many of Gould's ideas about music, recording, and performance. This pivotal work laid the foundation for many future articles and books, and further established Gould as a musician who needed to be given serious consideration as a thinker. In the years since his death, the literature on Gould has multiplied at an incredible rate, as has his following, which has spread around the world to such an extent that the number of Gould admirers and scholars in countries as far abroad as Japan rival those in his home country. Collections of Gould's essays in multiple languages, major biographical studies, and numerous essays and books examining finer details of his work have all contributed to the growing body of literature that seeks to understand more about this Canadian pianist. Kevin Bazzana has published an authoritative examination of Gould's performance practices, focusing on examples in his recorded output, and including a discussion of his approach to studio technique.[5] Noteworthy publications on Gould's philosophies in particular include Elizabeth Angilette's book, "Philosopher at the Keyboard: Glenn Gould,"[6] as well as a pair of extended essays in Jean Jacques

2. Glenn Gould, *The Glenn Gould Reader*, Tim Page, ed. (New York: Knopf, 1984), 453.
3. Ibidem, 248.
4. Payzant, *Glenn Gould: Music and Mind*.
5. Kevin Bazzana, *Glenn Gould: The Performer in the Work* (New York: Oxford, 1997).
6. Elizabeth Angilette, *Philosopher at the Keyboard: Glenn Gould* (Metuchen: Scarecrow Press, 1992).

Nattiez's "The Battle of Chronos and Orpheus."[7] Within the context of the philosophical traditions of aesthetics, Gould's thoughts invite interesting comparisons with the ideas of Plato, Kant, and Hanslick, with whom his ideas sometimes strongly agree, and at other times strongly clash. There is always something unique or contradictory about his philosophies that prevents him from being labeled as a romanticist, modernist, or postmodernist, or grouped conclusively with any one school of thought.

Over time, Gould's ideas have come to be associated with several key terms and ideas, one of the most central of which is the concept of musical "idealism." The term is used a great deal in the Gould literature to account for his interpretive decisions, or to explain some of his more peculiar professed opinions, and was first applied to his philosophies by Geoffrey Payzant.[8] Idealism, in philosophy, asserts that the basic nature of reality is primarily immaterial, and is constructed in the mind. This philosophical definition of idealism, and by association, of an idealist, needs to be separated completely from the more popular use of the idealist label today as someone who pursues an a lofty or noble end that is usually naive or impractical in nature. Philosophical idealism is entirely unrelated to the idealistic temperament, and implies no ultimate pursuit, but simply asserts a basic approach to reality. To use Payzant's division of terms to establish a working definition, the opposite of idealism is empiricism. Empiricism, applied to music, means that the essence of music lies in our sensory experiences: "the sounds and the feel of musical instruments as we play them, the sounds as we hear them, and the whole visual experience of reading musical notation and watching other people and ourselves playing and singing, whistling, tapping, humming, skipping, and so forth."[9] The musician who approaches music from an idealist's perspective works in the reverse. The music is conceptualized first as an entirely mental construct, and both physical actions and sound are secondary. Payzant describes a musician of this sort (with Gould as an example), writing that,

> He will learn to think a piece, and having thought it, go to the piano and play it without having to assemble and integrate sets of isolated skills. Where other (and not necessarily lesser) musicians develop their mental images in consequence of their physical contact with instruments, [idealists] develop

7. Jean-Jacques Nattiez, "Gould out of Time?" In *The Battle of Chronos and Orpheus*, trans. Jonathan Dunsby (New York: Oxford, 2004).

8. Payzant, *Glenn Gould: Music and Mind*, 80-88.

9. Ibid., 80.

> their mental images to a considerable extent by pure thought alone."[10]

In short, then, an idealist is someone for whom music is first and foremost a mental activity. In the case of an extreme idealist, which Gould certainly was, timbre becomes irrelevant, performance becomes unnecessary, and an instrument becomes a restriction rather than a palette of possibilities. Sound does not even need to be imagined in order for music to be understood. Although this philosophy bears great resemblance to Platonic idealism and the theory of the forms, the critical difference with Gould's thought is that for him, there was no single absolute version of a work. Thus, in his view, the ultimate goal of the performer was not to achieve a performance as close as possible to the perfect version of a piece, but simply to present one of an infinite number of possible versions of the piece. Gould, and those who worked with him, occasionally made mention of his habit of entering the recording studio without having prepared the piece he was scheduled to record. This "blank slate" approach was completely intentional for Gould, as he placed a great deal of importance on the creative process that took place when he sat down with a work, started rolling the tape, and tried out a wide range of interpretive ideas, assessing and adjusting them as he went.[11] In this way, Gould attempted to explore as many of these infinite potential performances of a work as possible, before selecting the version, or the combination of several versions, that best served the idealistic, or mental structure that he was attempting to convey.

Gould often reveals his intellectual approach to music in his remarks and essays. Appearing more than once among Gould's writings is a particular anecdote involving an experience with a vacuum cleaner. In the version told at the Toronto Conservatory's 1964 graduation, he describes how, while practicing Mozart one day, a vacuum cleaner was started up next to the piano, and forced his mental image of the music to preempt his auditory experience.

> "I could feel, of course — I could sense the tactile relation with the keyboard which is replete with its own kind of acoustical associations — and I could imagine what I was doing, but I couldn't actually hear it. But the strange thing was that all of it suddenly sounded better than it had without the vacuum cleaner, and those parts which I couldn't actually hear sounded best

10. Payzant, *Glenn Gould: Music and Mind*, 80-81.

11. Glenn Gould, "The Prospects of Recording," in *The Glenn Gould Reader*, ed. Tim Page (New York: Knopf, 1984).

> of all. What I managed to learn through the accidental coming together of Mozart and the vacuum cleaner was that the inner ear of imagination is very much more powerful as a stimulant than is any amount of outward observation."[12]

In an earlier version of the story, he added, somewhat more cheekily,

> "It took off — all of the things Mozart couldn't quite manage to do I was doing for him. And I suddenly realized that the particular screen through which I was viewing this, and which I had erected between myself and Mozart and his fugue, was exactly what I needed — exactly why, as I later understood, a certain mechanical process could indeed come between myself and the work of art that I was involved with."[13]

Payzant suggests that this is the very reason Gould loved to tell this story is because it seems so preposterous.[14] How can he expect us to believe him when he says that the sound of the vacuum actually added to the piece? Here, we must split hairs and understand that the 'screen' that the vacuum was providing was serving as a divider that separated the physical sounds that were reaching Gould's ears, and the mental sounds that he was aiming for. This simple story is, in fact, one of the best examples we have of the relationship between idealism and his concept of musical ecstasy. The way Gould describes the sound as 'taking off,' and the glowing adjectives he applies to the results in his other tellings of this story, even going so far as to label it as one of the defining moments of his life, indicate that this was very much an ecstatic experience for him. What was it that elevated it to such a level, when the music was being drowned out by the vacuum's noise? To Gould, the music was not, in fact, being drowned out at all. What was being drowned out were the limited expressive efforts of the piano in communicating the music in its ideal state. Once the physical sounds were filtered away, all that remained was what he referred to as "the music itself." For Gould, as an idealist, the mental aspects were even more real than the physical aspects of music, which returns us to one of the most basic premises of idealism: that music is fundamentally a mental activity and is only secondarily physical.

12. Gould, *The Glenn Gould Reader*, 7.
13. Payzant, *Glenn Gould: Music and Mind*, 35-36.
14. Ibid., 36.

This focus on the mental elements of music is the most foundational principle of idealism, but this emphasis generates a cascade of other polarities and priorities that dictate Gould's approach to music: the hands are subservient to the mind, practice is subservient to theory, and sonority is subservient to structure. Each of these systematic precedents is evident in Gould's thinking, and we can attribute many of his choices to one or more of these factors. The one that follows most directly from the emphasis on the conceptual is the emphasis on the structural. If we were to collect lengthy lists of all of the composers Gould liked and disliked, it would quickly become apparent that the biggest reason that Gould appreciated some composers and disregarded others was because of their reputation as structure-based composers or sonority-based composers.

The two composers Gould is usually most closely associated with, Bach and Schoenberg, have several compositional features in common: structural density (faster harmonic rhythms and greater harmonic complexity), counterpoint, and comparatively greater emphasis on the idealistic aspects of music. The works of Bach made up a much larger portion of his recorded output, but Schoenberg was a far greater intellectual influence. Bazzana has proposed that Gould was following in the conceptual footsteps of Schoenberg, in the way that he reflected a modernist aesthetic back onto Bach and the subsequent Austro-German composers in the classical tradition, and he could thus be said to be approaching music in the style of "Bach seen through the eyes of Schoenberg."[15] The modernist aesthetic within which Gould had developed his ideas already tended to value the intellectual, the structural, and the clinical purity of sound and interpretation that he pursued. In this way, both Gould and the musicians involved in the historical performance practice movement that he despised so much were pursuing the same set of modernist ideals, though they expressed themselves in entirely different ways. Gould placed Bach on a pedestal as the master of idealistically-pure composition. Whether or not this honour was accurately bestowed is another matter. Gould revered Bach for the way the great composer wrote with "sublime instrumental indifference." Of "The Art of Fugue," which Gould considered to be the pinnacle of idealist composition with its open scoring, he said, "Bach was, in fact, withdrawing from the pragmatic concerns of music-making into an idealized world of uncompromised invention."[16] The works Gould admired and appreciated the most had specific qualities in common: they lent themselves

15. Bazzana, *Glenn Gould: The Performer in the Work*, 20.

16. Glenn Gould, *Glenn Gould: Selected Letters*, John P.L. Roberts and Ghyslaine Guertin, eds. (Toronto: Oxford, 1992), 110.

easily to transcription, they could be considered comprehensible and complete without ever being performed, they were not dependent on particular sonorities or tone colours, and they could be conceived of in fully idealistic terms. When we strip away a piece's dependence on interpretation, emotional character, and sonority, what remains? The structure. Gould references and emphasises structure throughout his writings, clearly placing it in a position of utmost importance in his musical philosophy. In a mock interview conducted by 'David Johnson,' one of Gould's fictitious alter-egos, Gould identifies the role of structure: "It's the structure as such that signifies, independently of the sonorities you impose on it."[17] Additionally, within the same interview, he adds, "I am convinced that [Bach] considered these instruments – and for that matter he would have felt the same way about the piano – as convenient mediums for writing and playing structures that, in his mind, were first and foremost structures and only of subsidiary interest in terms of the study of sonority."[18]

Of Gould's approach to music, Payzant wrote, "Gould is not a pianist who takes time away from the piano to think. He is a musical thinker who makes use of all available means to thought, including the piano."[19] Not only does this point emphasize Gould's intellectual approach to idealism, structure, and performance, but it also provides us with an indication of his relationship with the piano: it was a "means to thought." Not an end in itself, the instrument was, to Gould, simply one way of expressing musical structure through sound. Gould's writings and interviews contain many examples of his strong opinions on the limitations and problems of the piano and of piano technique. "A work learned in analytical terms and only secondly at the instrument will leave you permanently a stronger sense of its structure and its internal workings," he wrote in one letter;[20] on a separate occasion, he mentioned that "fingers give nauseating interpretive ideas."[21] Gould felt very strongly that the piano placed limitations on his musicianship, and as a result, he spent the majority of his working hours away from the instrument.[22] For Gould, pianism and idealism lay at opposite ends of the spectrum. Catering to one meant neglecting the other. Thus, his commitment to idealism required him to adopt a position as a very un-pianistic pianist. In a conversation with Jonathan Cott in 1974,

17. Glenn Gould, *Contrepoint a la ligne: Ecrits II* (Paris: Fayard, 1984), 34.
18. Ibid., 40.
19. Payzant, *Glenn Gould: Music and Mind*, ix.
20. Gould, *Glenn Gould: Selected Letters*, 52.
21. Bazzana, *Glenn Gould: The Performer in the Work*, 17.
22. Ibid.

Gould explained the connection between his desire to remove himself from the piano and the pursuit of the ideal: "the degree to which you can minimize [the instrument's] effect is the degree to which you can reach out for the ideal."[23] Gould's continued efforts to dissociate himself from his instrument create an interesting paradox. His reputation was first and foremost as a pianist, and, despite all of his derogatory statements about the instrument, it was only through the piano that he was able to deliver the results of his musical ideas. Without the piano, all of his best propositions about idealism and the purity of structuralism would have remained in the realm of ideas and could never have been demonstrated. For all his emphasis on the mental aspect of music, in order to be shared, it had to be expressed through the tactile, subjective voice of the piano.

Gould's highly cerebral approach clearly explains his musical tastes, as well as his repertoire choices. He was very vocal about his preferences for complex, linear music (as opposed to vertically-oriented, chordal music), especially contrapuntal music, and on the occasions he did choose to perform or record music that did not meet his intellectual and structural standards, he was would occasionally include his own adjustments in the music in an effort to improve its structural integrity. Kevin Bazzana's "Glenn Gould: The Performer in the Work" has documented numerous examples of such modifications to pieces including his contrapuntal favourites, such as Bach's Partitas, as well as other repertoire including Gibbons and Handel.[24] In general, these modifications were most often made in order to create parallel relationships between particular structural elements, or to build up the continuity of motivic fragments. In one instance found in both the 1962-3 and 1979 recordings of Bach's Partita No. 4, Gould normalizes a particular ornament that appears in two different forms over the course of five parallel phrases. Perhaps the most interesting feature of these standardizations is that in the earlier recording, Gould applies the turn format that appears first to all of the remaining points, but in the later recording, he chooses the second version of the turn, again applying it consistently to each ornamented point.[25] More aggressive examples of this imposition of consistency appear in cases where Gould moves beyond changing small details such as dynamics and ornaments, to pieces in which he alters notes that entirely change the character of the phrase, in order to force particular motives to match identically with

23. Jonathan Cott, *Conversations with Glenn Gould* (Boston: Little, Brown, 1984), 40-41.
24. Bazzana, *Glenn Gould: The Performer in the Work*, 28.
25. Ibid.

one another.[26]

What we can conclude from this is that Gould was not concerned with the execution of the ornament itself in the case of the Bach, or of the character of the phrase itself in the Gibbons, but simply with the fact that each instance of the ornament or motive was structurally consistent with the rest. This willingness to alter the original score extended to interpretive decisions as well, and Gould certainly gained his share of notoriety for his extreme choices in this regard. "Tempi per se don't matter much to me," he explained on one occasion.[27] Indeed, his recordings agree with his words. There were cases when Gould would record a piece at one tempo, and rerecord it later in his career, choosing an entirely different tempo the second time. For some pieces, he would take a tempo that was far quicker than the composer's indication, and for others, he would take the opposite approach, stretching the performance to lengths previously unheard of.[28] In all of these instances, though, Gould is never arbitrary, and his interpretive decisions do not stem merely from a desire to be provocative, but from his strong belief in structuralism. When playing the dense, contrapuntal music that he favoured, Gould often chose a slower tempo than he would for works that were more improvisatory in nature, enabling him to emphasize the beauty of the musical structures. One of the most famous examples of this exact practice is found in the original and rerecorded versions of the Goldberg Variations that bookended his career. Superficially, it is easy to note that nearly every single track of the thirty-two on each disc is substantially longer in the 1981 version than the 1955 version. While many of the variations are indeed taken at a noticeably slower tempo in the later recording, this is not always the case, as there are also several examples of variations that are played even faster still. This eliminates the potential hypothesis that Gould was simply less concerned with virtuosity in the second recording. Why, then, did he choose to alter some tempos so drastically to both extremes? The answer is apparent in Gould's interview with Tim Page. Gould explains, "Variation 17 is one of those rather skittish, slightly empty-headed collections of scales and arpeggios which Bach indulged when he wasn't writing sober and proper things like fugues and canons, and it just seemed to me that there wasn't enough substance to it to warrant such a methodical, deliberate, dramatic tempo."

26. Bazzana, *Glenn Gould: The Performer in the Work*, 28.

27. Nattiez, "Gould out of Time?" 88.

28. Leonard Bernstein, "The Truth About a Legend," in *Glenn Gould: Variations* (Toronto: Doubleday, 1983), 17-22.

"In other words," asks Tim Page, "you're basically saying that you didn't like it enough to play it slowly."

Gould reply? "You got it!"

This is a prime example of interpretation and taste expressly in the service of structure. Even the repeats in this recording serve to emphasize the desirable, contrapuntal structures of several of the variations; Gould noticeably employs repeats only in the variations that feature canon and quodlibet.

All of these elements of Gould's philosophy—idealism, transcribability, and structuralism—have an important factor in common. Each one emphasizes a specifically intellectual aspect of music, and connects to one of Gould's central focuses in music: atemporality. This key value is at the core of a great number of Gould's most well-known statements and attitudes. Music, by its very nature as a performance art, is defined by time and space, but this premise was one of the things Gould was rejecting when he made his departure from the concert stage in 1964. He sought separation, liberation, and perfection that were unobtainable within the constraints of time, and time, therefore, had to be circumvented. It was within the walls of the recording studio that Gould found his solutions. In essays such as "The Prospects of Recording"[29] and discussions of ideas such as "non-take-twoness"[30], Gould advocates passionately for the advantages the recording studio provides to the interpreters and listeners of music. For Gould, one of the largest problems with live performance is that once it has taken place in its linear period of time, it cannot be undone, redone, reconsidered, or modified. This is what Gould refers to when he discusses non-take-twoness and atemporality. Linear time imposes constraints on a musical performance that force it to proceed in one direction only, regardless of the results. In the studio, however, performers are permitted as many takes as they desire, and these takes can then be spliced together with absolutely no regard for the order in which they took place in real time. A recording stands completely apart from the temporal date on which it was recorded, and is able to be listened to again at any time. Unlike live performance, it can be paused, reversed, slowed down, and otherwise break all the usual rules enforced by time. Gould celebrated the breaking down of these tem-

29. Glenn Gould, "The Prospects of Recording," *High Fidelity Magazine* 16/4 (1966): 46-63.
30. Payzant, *Glenn Gould: Music and Mind*, 28.

poral barriers for both performers and listeners, and considering the accomplishment he viewed these developments to be, it is little wonder that he was such a forceful advocate of recording and editing technology.

As an artist, Gould was among the first to explore and develop numerous innovations in the studio. He experimented with the splicing of stylistically-different takes into a unique whole, recorded layered takes that enabled him to produce physically-impossible performances of complex transcriptions, and worked on projects that included choreographed shifts between microphones located at varying distances from the piano. He lauded the studio for the ways in which it liberated the performer from the uncertainties of the concert stage, and freed the music from the constraints of linear time. Gould had faith in his listeners, too, believing that they would benefit from the opportunity to involve themselves in the creative process, and envisioned a means by which they would be able to adjust certain aspects of their listening experience, even going so far as to choose between different takes of a passage and assemble their own preferred version of the piece.

> I'd love to issue a series of variant performances and let the listener choose what they themselves most like. Let them assemble their own performance. Give them all the component parts, all the component splices, rendered at different tempi with different dynamic inflections, and let them put something together that they really enjoy — make them participant to that degree."[31]

To a great extent, Gould succeeded in employing technology to escape the barriers that time imposes on musical performances. His philosophies, however, carried this principle much further than the ability to correct a wrong note or assemble a patchwork fugue. What Gould sought in addition to this was true liberation from the linear progression of history itself and its implications on aesthetics. Many of his favourite works (such as the early and late works of Schoenberg, Gibbons, Richard Strauss, and Gesualdo) were those that straddled the borders of historical periods and confounded typical categorizations. Of such composers he wrote, "We are dealing with people for whom the development or evolution of art seem suspended in relation to the passage of time, capable of appearing retrogressive as well as progressive, endowed with a special dimension in which the essence of time may be discovered and its absence experienced."[32] Gould was constantly

31. Kevin Bazzana, *Wondrous Strange: The Life and Art of Glenn Gould* (New York: Oxford University Press, 2004), 267.

32. Nattiez, "Gould out of Time?" 98.

at work to advance the idea that the conventional depiction of music history as a succession of innovators and innovations was flawed. "I reject the idea that the new is better. The new is new and that's all there is to say."[33]

One of Gould's most famous arguments for the abolition of historically-contextualized judgments was the story behind what he referred to as "Van Meegeren Syndrome." In this illustration, Gould tells the story of a Dutch artist named Van Meegeren who painted imitation Vermeers so convincingly that experts authenticated his work as originals, and he achieved great financial success through the sale of his canvases, including sales to private collectors in Nazi Germany. As the war came to a close, however, Van Meegeren found himself in considerable trouble when he was charged with the sale of national treasures to the Germans. Van Meegeren was forced to confess that the 'originals' were his own creations, but while this saved him from being charged with treason, he was convicted instead as a forger, and died in prison.[34] Gould wrote,

> "The determination of the value of a work of art according to the information available about it, is a most delinquent form of aesthetic appraisal. ...The moment this tyranny of appraisaldom is confronted by confused chronological evidence, the moment it is denied a predetermined historical niche in which to lock the object of its analysis, it becomes unserviceable and its proponents hysterical."[35]

While the Van Meegeren case and Gould's arguments for independent aesthetic assessment seem compelling, is the end result of such thinking not dangerous? Is Gould not ultimately advocating for historical ignorance? As Nattiez asks in his study of the pianist, "is ignorance the real price of an aesthetic absolute?"[36]

Gould brings this reasoning full-circle, wielding it not only in his argument against the notion of a linear concept of music history, but also against those who decried studio-edited recordings as decontextualized 'forgeries' of live performances. He concluded his article on "Forgery and Imitation in the Creative Process" with this expression of his hopes for the emancipation of art through atemporal media: "[Art] will...be able to express the agelessness of the aesthetic impulse (freed from the conformities that time

33. Gould, *Contrepoint a la ligne: Ecrits II*, 36.
34. Gould, "The Prospects of Recording," 46-63.
35. Ibid.
36. Nattiez, "Gould out of Time?" 99.

imposes), freed from the conformity that we have permitted history to impose."[37]

Gould referred to himself as "The Last Puritan," a contradictory title indeed for an artist who rejected the efforts of those engaged in the historical performance practice movement, and who championed the use of technology for techniques he labelled 'creative cheating'[38] — an interpretive tool not so different from the extrapolations of those involved in historical performance practice. As Mark Kingwell summarizes Gould's paradoxes,

> He was progressive and anti-progressive at once, and likewise at once both a critic of the Zeitgeist and its most interesting expression. He was, in effect, stranded on a beachhead of his own thinking between past and future. That he was not able, by himself, to fashion a bridge between them is neither surprising, nor, in the end, disappointing. We should see this failure, rather, as an aspect of his genius."[39]

For Gould, the destruction of the temporal barriers that previously bound performance and aesthetic judgments, meant the liberation of the structural and idealistic transcendence inherent in the music itself. It was toward this end that Gould devoted his career, for it was in this way that he believed a state of ecstasy was truly achievable.

3.2 Manipulating Sound

Glenn Gould's lifelong relationship with the recording studio began in December 1950, on the occasion of his first radio performance with the Canadian Broadcasting Corporation. In an article written for *Piano Quarterly* in 1974, Gould tells the story of that first Sunday morning appointment with the CBC, during which he performed a pair of sonatas: one by Mozart, and one by Hindemith.[40] The broadcast itself was completely live, in the style of what Gould referred to as the "first-note-to-last-and-damn-the-consequences syndrome of the concert hall," but the importance of that event was, firstly, that he was able to communicate with his audience through the mediation of the microphone, and secondly,

37. Glenn Gould, "Forgery and Imitation in the Creative Process," *GlennGould* 2/1 (1996): 9.
38. Gould, *The Glenn Gould Reader*, 446.
39. Mark Kingwell, *Glenn Gould*, Extraordinary Canadians (Toronto: Penguin Canada, 2009), 166.
40. Glenn Gould, "Music and Technology," in *The Glenn Gould Reader*, ed. Tim Page (New York: Knopf, 1984), 353.

and most importantly, that he was sent home with a soft-cut acetate copy of his broadcast that would change his perspective on recording technology completely. Of the significance of this souvenir, Gould writes,

> Even today, a quarter-century after the fact, I still take [the disc] down from the shelf on occasion in order to celebrate that moment in my life when I first caught a vague impression of the direction it would take, when I realized that the collected wisdom of my peers and elders to the effect that technology represented a compromising, dehumanizing intrusion into art was nonsense, when my love affair with the microphone began."[41]

Referred to by his contemporaries as "the philosopher of recording,"[42] Gould was one of the twentieth century's most passionate and vocal advocates of recording technology. His ideas about recording were inseparably linked to many of his philosophies, performance practices, and career decisions, and he seldom passed up the opportunity to speak about the role of technology in his life, and in the future of music.

The moment of realization in Gould's 1950 experience with the CBC broadcast came when, after listening to the acetate disc several times, he discovered that by altering the balance of the treble and bass, the studio piano, which had been quite bass-heavy during the broadcast, could be made to sound like a completely different piano. Although the balance may have served his Mozart better, the most important aspect of this realization was not concerning the enhancements that dial-twiddling lent to the clarity of the sound; it was that technology, in a very simple way, had stood as a mediator between what Gould classified as the "attempt" and the "realization." Technology, he explained, had been employed "to sponsor a suggestion of that which was not."[43] This concept of mediation and sponsorship of an altered version of reality lies at the core of Gould's advocacy for technology. His pet terms for the application of technology to illusory and theatrical effects in recording were "creative dishonesty" and "creative cheating," phrases he employed without apology, since technological manipulation, in his view, was a part of the inevitable progression of technology's role in art. "Fifty years ago, most people thought that recording was essentially an archival operation, the better to remember Grandpapa's generation by."[44] This, according to Gould, was a natural approach to recording in its

41. Gould, "Music and Technology," 354.
42. Payzant, *Glenn Gould: Music and Mind*, 119.
43. Gould, "Music and Technology," 354.
44. Ibid., 356.

most primitive forms, but increased involvement on all levels was an inevitability: "For technology should not, in my view, be treated as a noncommittal, noncommitted voyeur; its capacity for dissection, for analysis—above all, perhaps, for the idealization of an impression—must be exploited."[45] Gould imagined a trajectory for recording technology in which participation on all levels continually increased. In his ideal world, recordings would no longer be sacred artifacts created by performers and revered by listeners, but invitations to participation for the "New Listener." He credited the listening world with a great deal of intelligence, sophistication, and informed tastes, but he also expected a great deal of them.

> "At the center 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."[46]

An advertisement in the 1950's boasted "the finest seat in the house," also claiming that its listeners were provided with an even better listening experience than the concert hall, due to the absence of audience distraction. In the years that followed, however, new fears emerged as experimentation with splicing techniques began to change the way music was recorded and produced. Payzant enumerates three mid-twentieth-century objections to tape editing: "that splice points are audible, that we can hear differences between the original sounds and the inserted sounds, and that splicing breaks the integrity and sweep of a performance."[47] Furthermore, what if splicing concealed not only the occasional mishap, but genuine incompetence on the part of the performer? Could technology "sponsor a suggestion of that which was not" to such an extent that listeners could be essentially 'sold' a performance that never really took place? Sousa, Andre Watts, Sir Adrian Boult, and a host of others stood adamantly on the reactionary side of the issue, prophesying the downfall of musical culture, but the opposite position had its share of advocates as well, notably including, of course, Glenn Gould.

45. Gould, "Music and Technology," 354-5.
46. Gould, "The Prospects of Recording," 347.
47. Payzant, *Glenn Gould: Music and Mind*, 123.

Although almost fifty years have passed since Gould made his pro-recording predictions, some of them still seem a little disturbing. One example that Gould described thoroughly (and characterized as a "relatively simple matter"[48]) was the idea of enabling listeners to make their own decisions in the tape-splicing process. "Let us say, for example, that you enjoy Bruno Walter's performance of the exposition and recapitulation from the first movement of Beethoven's Fifth Symphony, but incline toward Klemperer's handling of the development section," Gould proposes in his famous essay, *The Prospects of Recording Technology.* He proceeds to suggest, that with the conditions of certain technological conditions being met, listeners could feel free to "snip out these measures from the Klemperer edition and splice them into the Walter performance," thus constructing a unique, personalized, ideal performance. Given the strong predilection of the Western mentality towards customization and individuality, why does this notion cause so many classical music lovers to cringe? When we consider today's concept of a musical work, perhaps a negative reaction to the idea of creating a performance resembling Frankenstein's monster isn't so surprising. In the Western art music tradition, the score is revered as the authority to which the performer is bound, and musicians who significantly add to or alter the score, or even deviate from the current set of values that are held aloft as the 'composer's intentions,' are heavily criticized. In the same way, a performance is respected as a work of art that encapsulates the performer's best intentions, interpretations, and ideals; it is believed to be a unique, coherent entity that is intended to be considered as a whole (hence contemporary audiences' scorn when an uninformed attendee applauds between movements in a concert performance!) As such, the notion of splicing a fragmented portion of one performer's work into the then-segmented body of another performer's work is difficult to accept.

Gould devoted a great deal of time and effort to breaking down the popular arguments against recording technology and tape editing, and dealt directly with several of these issues in an experiment he conducted in 1975. Although he admits at the outset that there are specific shortcomings in his methods due to his inexperience with statistics and polling, he clearly states his purpose in gathering the information from his experiment, and, with the assistance of the extremely favourable results he obtained, sets out to make a case for the very applications of splicing to which many prominent classical performers in his generation were so firmly opposed.

48. Gould, "The Prospects of Recording," 348.

Gould's study was an experiment in listening. He examined eighteen participants, whom he drew from a wide range of backgrounds, including six professional musicians (a composer, a musicologist, two pianists, a singer, and a cellist), six audio experts (all of whom, according to Gould, had extensive experience working on the very things the study was examining), and six laymen. Their task was to attempt to identify the splice points in eight different classical pieces, given nothing more than the title of the work, the score, and three listenings of the piece.[49] Over the course of just over half an hour of music, there lay sixty-six splice points. Each participant was allowed to make and change as many guesses as they wished. At the end of the study, Gould tallied all of the guesses, compiled a set of statistics that, not surprisingly, supported his hypotheses quite decisively, and made some bold pronouncements about the success of tape splicing, and the impact of music education on perception in this regard.

The first observation he made on his data was that there were actually, in four cases that enabled direct comparisons, inverse correlations between splice density and guess density.[50] Gould chose a movement each from a pair of sonatas for viola da gamba, and labeled them "Bach I" and "Bach II." Bach I contained no splices whatsoever and Bach II, containing twelve splices in approximately two and a half minutes, was a "densely populated splice thicket"[51] Despite this disparity, Bach I actually yielded far more splice guesses (thirty-six) than Bach II (twenty-two, of which only six were correct). Gould claims similar results with the next two pieces, "Beethoven I" and "Beethoven II." In this case, the setup was reversed: Beethoven II contained no splices, and Beethoven I contained nine. Here, Gould is forced to extrapolate what the guess tallies would have been in the slightly-shorter Beethoven II if the two pieces had been the same length in order to support his conclusions, but regardless, the two totals are already extremely close, at sixty-four guesses in Beethoven I and fifty-two guesses in the spliceless Beethoven II. In his summary of his findings, Gould corrected for "error ratio" through an undisclosed mathematical adjustment, and displayed the resultant accuracy rankings for each piece. The results were quite to his liking: in five of the eight pieces, the laymen ranked first overall, and placed last on only one single piece. The professional musicians, by contrast, placed first only once, and ranked last on all but two of the pieces. Gould chooses to mainly let his data speak for itself, refraining from stating all but a pair of conclusions:

49. Gould, "The Grass Is Always Greener in the Outtakes," 361.
50. Ibid., 363.
51. Ibid.

"the tape does lie and nearly always gets away with it; a little learning is a dangerous thing and a lot of it is positively disastrous."[52]

Are these conclusions valid? To begin with the last point, what caused the embarrassing failure on the part of the radio technicians, and especially the professional musicians? Were these results caused by faults that lay with the participants, or with the experiment itself? The way Gould presents his results, it certainly does appear that the more specialized knowledge the participants had about the music they were listening to, the more poorly they performed. He mentions specifically, "It was also worthy of note that the four highest scores...were all achieved by people with one thing in common—the inability to read music."[53] This implication is left open-ended, but a possible key to these outcomes lies in Gould's description of a particular portion of the experiment involving a piece by Byrd.

> The Byrd galliard was chosen precisely because its long splice occurs at the most obvious and, consequently, most unlikely of places: it follows a double bar that demarcates the central section from the concluding paragraph. This test was devised in order to weed out the 'sophisticates' from what one might call the 'divine innocents'—i.e., no trick-conscious technician would be caught dead making so obvious a call, and indeed it was left to three laymen to make a correct identification.[54]

It is here that the fundamental bias in Gould's experiment is revealed, and the Byrd case makes the perfect example. The obvious double-bar-line splice was intentionally selected because Gould knew that the musicians, having been invited to participate in a study that challenged them to identify splice points, would be listening extremely carefully for subtle giveaways, such as clipped sound overhang in pedal changes, unexpected dynamic or tempo changes, or points where the subtleties of a phrase didn't feel coherent. Technicians, with their experience in editing techniques of these very kinds, would be especially sensitive to points where a click in the tape, or a sloppily-matched entry indicated a splice. The laymen, on the other hand, not having the knowledge or experience to know to listen for musical or technical indicators, would be far more likely to simply pick points where a rest, a pause, or a repeat provided an opportunity for a convenient

52. Gould, "The Grass Is Always Greener in the Outtakes," 368.
53. Ibid., 367.
54. Ibid., 364.

splice—and they would often be right. In this way, the very nature of the experiment set the knowledgeable participants up for failure before they began. Gould knew they wouldn't be "caught dead" making certain guesses, but was able to anticipate the "innocents" placing their guesses on the obvious opportunities. Do Gould's results really indicate that musical or technical training reduces one's ability to hear a splice? Not likely. What he really has proven is that different types of listeners were paying attention to different aspects of the recordings, and because of this, made different types of guesses.

At the beginning of his article, Gould acknowledges several other potential problems with his methods.[55] The sample size, at eighteen participants, was certainly too small, and was composed entirely of Gould's personal friends. The study could have also benefited from such controls as the rotation of the order of the works presented, to protect against trends in results caused by listening fatigue. However, despite these and other small problems, and despite the clear bias of the study, upon looking at Gould's results, his assertion that the tape "nearly always gets away with it" seems completely valid. The best score earned over the course of the entire experiment was the general practitioner's, with an accuracy percentage of 3.4 percent. At the bottom end, however, was a three-way tie between two radio producers and an insurance underwriter, all of whom failed to correctly identify a single splice entry. As Gould points out, some successful guesses are to be expected, since, "after all, if allowed to play 'Battleship' with the scores in question, somebody was bound to hit something.'[56] Still, the vast majority of the splices in the listening examples went completely undetected, despite being scrutinized by participants with high levels of expertise in performance and broadcasting. Perhaps this result would surprise a modern musician very little, but the prevailing attitude during Gould's generation was that splices were detectable, that they destroyed coherent lines, camouflaged incompetence, and were essentially a sophisticated form of cheating. Gould fully acknowledged the elements of trickery present in recordings that used splicing techniques. "They feel that there's a certain amount of cheating involved, and of course there is!"[57] According to Gould himself, and those who worked with him in the studio, he rarely used splicing to correct wrong notes.[58] He had no need to 'patch up' his performances, but he was entirely in favour of taking advantage of the insights

55. Gould, "The Grass Is Always Greener in the Outtakes," 359-60.
56. Ibid., 367.
57. Payzant, *Glenn Gould: Music and Mind*, 121.
58. Ibid., 125.

that came to him once he had already recorded several stylistically-different takes of a piece. Was this deceitful? Perhaps only if the listener was directly informed that the work at hand had been recorded in a single take. Gould, however, simply saw no value in executing such stunts purely for their own sake. In all of his articles and interviews, he was not merely championing recording technology as a convenient alternative to a Friday night at the concert hall, or even as a good way to preserve performances for the future. He was proposing recording technology as an entirely separate medium with entirely different capabilities. Not only that, but he was arguing that these new possibilities were distinctly better than those afforded by live performance. This was where Gould was strongly at odds with many prominent musicians of his day. A 1974 interview in *High Fidelity* with Andre Watts yielded the following perspective from the pianist:

> I can't help wishing that all recordings were live performances...If this is totally unfeasible, then at least I'd like to know that there was no splicing within movements...The whole intimidating idea of having all those guys around while you have to stop and ask for a retake...can be pretty terrible, especially if you have to start again and again. It can get you very uptight.

Eight months later, Stephen Bishop was interviewed by the same magazine, and remarked,

> A recital will of necessity have flaws, but it will often have an in-built continuity, a spanning intellectual arch, that most recordings do not capture. The complexity of recording-studio conditions and the necessity that the score be rendered note-perfect...usually dictate doing more than one take for a movement or work, and the sense of a long line stretching across the whole piece can rarely be achieved unless the playing continues from beginning to end without stopping.

Gould, of course, squarely disagreed. This conflict with the prevailing attitudes of his generation precipitated many of his magazine articles and short essays, from his well-known *Prospects of Recording* to his straw-man argument against a paraphrased statement by Sir Adrian Boult in *Music and Technology*.

The most famous example of Gould's liberal post-taping alterations, and his arguments for their necessity, is his own account of his recording of the A minor fugue from book I of *The Well-Tempered Clavier*. "In the process of recording this fugue we attempted eight takes. Two of these at the time were regarded, according to the producer's

notes, as satisfactory. Both of them, number 6 and number 8, were complete takes requiring no inserted splice."[59] Despite the technical completeness and correctness of each take, several weeks later, upon returning to the recordings, Gould felt that neither of them was satisfactory by itself. Gould was known to frequently enter the recording studio without a clear conception in his mind of how he wished to record a piece, and the A minor fugue had been no exception, with Gould imbuing each separate take with a unique character and phrase delineation. Take six had been "solemn, legato, rather pompous [in] fashion," and take eight, in contrast, had been executed in a staccato, rather "skittish" manner. Gould found them both "monotonous."[60] As such, the decision was made to meld both takes into one single performance, by alternating between the two versions. Take six, with its stronger nature, was used for the opening and concluding sections of the fugue, and take eight was spliced into the middle.

> What had been achieved was a performance of this particular fugue far superior to anything that we could at the time have done in the studio. There is, of course, no reason why such a diversity of bowing styles could not have been applied to this fugue subject as part of a regulated a priori conception. But the necessity of such diversity is unlikely to become apparent during the studio session, just as it is unlikely to occur to a performer operating under concert conditions. By taking advantage of the post-taping afterthought, however, one can very often transcend the limitations that performance imposes upon the imagination."[61]

Apart from the immediate benefits of retrospective analysis and choice, this "post-taping afterthought" embodies another aspect of recording technology that Gould championed: the integration of formerly-distinct musical roles. Prior to the age of recording technology, the roles of performer and listener were entirely separate, and the composer, too, often played a compartmentalized role in the artistic process. What the A minor fugue anecdote demonstrates is that because of the nature of the editing process, Gould, as the performer, was able to step back from the creative act and assess his interpretive decisions from the perspective of a listener, and then take on the role of the editor and assemble a new performance that had never really taken place in real time. Performing, listening, creating, and recreating are melded together in a role that seizes command of

59. Gould, "The Prospects of Recording," 338.
60. Ibid.
61. Ibid., 339.

every aspect of the music at hand. The recording process thus permits far greater degrees of control, analysis, and reflection than a live performance ever could. Gould coined a term for the one-chance, all-or-nothing nature of live performance: "non-take-twoness."[62] This was his primary objection to the concert tradition.

Whether he was in the audience or on the stage, Gould never felt at home in the concert hall. On the concert circuit, he was notorious for canceling performances at the last moment, and on the rare occasions he was obliged to attend a concert as an audience member, he consistently chose to listen to the performance from the wings, rather than sitting in the hall itself with the rest of the audience, enduring "the perspiration of two thousand, nine hundred and ninety-nine others penetrating their nostrils."[63] Certainly, his feelings about concert halls placed him in a small minority among classical performers, but Gould had his reasons. First of all, he vehemently opposed competition and conflict in all forms. Applied to repertoire, this manifested itself in Gould's fundamental dislike of the concerto, which pitted pianists and their virtuosic technique against the forces of the orchestra, and the flashy solo works of the romantic era, which Gould claimed demanded more showmanship than musical skill.[64][65] According to Gould, the concert setting was the root of the competitive aspects of music that he despised so much. He wrote and spoke often of the concert hall using terms and metaphors related to gladiators, killing, and war.[66][67] In an interview towards the end of his life, he stated, "I happen to believe that competition rather than money is the root of all evil."[68] The second effect of the concert hall that Gould took issue with was the way it became necessary for performers to adopt techniques and tactics in performance that enhanced the experience for a concert-hall audience in concert-hall acoustics. To illustrate, Gould once described the evolution of his playing of Bach's Partita No. 5, which he recorded for CBS after his return from his European tour. The Partita had appeared on nearly every program he had given overseas, and over the course of his tour, his playing of this piece had acquired "stagy habits: expressive dynamics and rubato, and other art-

62. Payzant, *Glenn Gould: Music and Mind*, 28.
63. Ibid., 22.
64. Glenn Gould, "N'aimez vous pas Brahms?" In *The Glenn Gould Reader*, ed. Tim Page (New York: Knopf, 1984), 70-1.
65. Bazzana, *Glenn Gould: The Performer in the Work*, 122.
66. Gould, "The Prospects of Recording," 338.
67. Payzant, *Glenn Gould: Music and Mind*, 60.
68. Glenn Gould, "Of Mozart and Related Matters," in *The Glenn Gould Reader*, ed. Tim Page (New York: Knopf, 1984), 41.

ful devices."[69] These habits transferred to the recording, much to Gould's distaste, and he stated that these "perversions" had compromised the structural framework of the piece. Likewise, the extra considerations required in live performance, such as pianistic gestures to enhance the visual experience of the audience, or the overstated dynamics and articulations needed to reach listeners in the back of the hall, detracted from the communication of the musical structures. These situations reinforced Gould's belief in recording technology as a means of holding performances closer to the structural ideals he hoped they would mirror. Without audiences present, and without the need for dramatic gestures and exaggerated dynamics and rubato intended to woo the crowd, a recording could focus exclusively on rendering a work in as clear a manner as possible. This set of preferences, however, clearly applied most effectively to the repertoire Gould favoured in the first place, and conveniently excluded the virtuosic, romantic repertoire that would have been served well by pronounced expressive devices.

Anyone who has seen Gould's playing recognizes his highly eccentric mannerisms and posture at the keyboard, and the unique performances that resulted. His playing style was highly detached, tightly controlled, and fastidious in its execution, particularly when it came to the remarkable independence of voices he was able to achieve in contrapuntal music. His approach to work in the studio was very similar. Gould wanted control over every aspect of the recording process, including aspects with which performers rarely meddled, and even aspects which were clearly delegated to the technicians in the studio. Even in interviews, particularly later in his life, Gould maintained a tight grip, scripting both his own answers and the interviewer's questions. This need to dictate and choreograph minutiae extended into his personal life as well, a fact those who knew him often attest to. Gould lived an eccentric and hermetic lifestyle, eventually spending most of the last half-dozen years of his life in a tiny hotel studio, keeping nocturnal hours, and contacting the outside world almost exclusively by the telephone. The connection is easy to draw between Gould's personal life and his musical persona, but if we examine what he has written and said about recording technology and its relationship to aesthetics, we find that, despite some inconsistencies, strong parallels exist in this area as well.

Recalling Gould's Van Meegeren Syndrome anecdote, Gould wields the lesson of the story not only in his argument against the notion of a linear concept of music history, but also against those who decried studio-edited recordings as forgeries of live perfor-

69. Payzant, *Glenn Gould: Music and Mind*, 24.

mances. Gould felt that live recordings, in an undesirable way, "spurn that elusive time-transcending objective which is always within the realization of recorded music."[70] Put more concisely, he wrote again "The inclination of electronic media is to extract their contents from historic date."[71] Gould believed that recording technology's ability to erase the live context of a performance would free music from the existing chronological system of aesthetic evaluation. He saw recording technology as the perfect solution to the aesthetic double-standards he called attention to in his writings. Gould concluded his article on "Forgery and Imitation in the Creative Process" with this expression of his hopes for the temporal emancipation of art: "[Art] will...be able to express the agelessness of the aesthetic impulse (freed from the conformities that time imposes), freed from the conformity that we have permitted history to impose." For Gould, the abolition of time, and the time-bound performances and aesthetic judgments that it dictated, meant the liberation of the structural and idealistic transcendence inherent in the music itself. This, for Gould was true aesthetic emancipation, and the ultimate end of recording technology.

70. Gould, "The Prospects of Recording," 341.
71. Ibid., 342.

Chapter 4

Mediated Performance and the Listener as Creator

It wasn't until years had passed after his death that the music world began to see the first traces of innovation that resembled some of Gould's bolder predictions about the relationship between performers, composers, and listeners. Even during Gould's lifetime, however, others were acknowledging the changes in the music world that were bound to be enabled by technology. One such figure that Gould refers to frequently is Marshall McLuhan; the elder professor's writings on technology, media, and communications clearly had a great impact on Gould's perspectives, and affirmed many of his beliefs. In his 1962 *The Gutenberg Galaxy: The Making of Typographic Man*, McLuhan observed the way in which electronic media acted to diminish both individualism and specialization.[1] Like McLuhan, Gould believed that these new forms of media promoted a more participatory, collaborative approach, instead of the passively receptive role of the listener in generations past. Rather than simply observing this trend, however, Gould took on the task of championing and hastening the advance of this shift, and considered the listener to be a creative partner in the music-making process. His oft-quoted remark, "Dial-twiddling is in its limited way an interpretative act"[2] speaks to the extent to which Gould viewed even such trivial adjustments as adjusting volume and tone to be the start of a much deeper involvement on the part of the listener. True to Gould's predictions, the presence of listener involvement in music has increased dramatically over the past few decades, and this final chapter will examine several very recent areas in which this

1. Marshall McLuhan, *The Gutenberg Galaxy: The Making of Typographic Man* (Toronto: University of Toronto Press, 1962).

2. Gould, "The Prospects of Recording," 347.

trend can be seen most clearly.

Perhaps one of Gould's most unsettling predictions was his idea that it would be possible in the future for listeners to take portions of one artist's recordings and splice them into recordings by another artist of the same piece. This concept of a 'kit' recording was a pet idea of Gould's, and he envisioned projects where listeners could purchase a collection of raw takes recorded in the studio, and invest their creative energies in assembling unique performances that reflected their own tastes. According to Bazzana, Gould's ideas predate any attempts to produce such kits, but they are very much a part of the 1960s aesthetic that produced aleatoric compositions such as works by Berio and Stockhausen.[3]

With the late twentieth century came innovations that approached Gould's ideals more closely. Karaoke exploded in Asian countries in the 1980s and spread to the western world in the following decade. New synthesizers such as Buchla's "Lightning III" allowed individuals with little musical training to experiment with sound production based on bodily input. And while we have not yet seen any 'choose-your-own-performance' recordings, at least in the way Gould imagined, Bazzana has identified a pair of CDs that come surprisingly close.[4] The first of the two is a 1991 release by Harmonia Mundi, with Nicholas McGegan conducting the Philharmonia Baroque Orchestra in a performance of *Messiah*—or rather, nine alternate performances of *Messiah*. The booklet accompanying this set of three discs includes instructions for the listener on how to set up a program on their CD player that will recreate their preferred version of the work, choosing from the different options on the CDs that reproduce historically-documented variants of the work. With each of the three CDs containing alternate sections from one of the three portions of *Messiah*, the discs are clearly not intended to be listened straight through, but instead demand that the listener make decisions for themselves on which version they would prefer to hear. Ignorance is not a viable option. In a similar, but less complicated way, Bazzana's other example of listener-participation CDs is a recording featuring the Sinfonia of London and R. Ricci on violin. In this 1992 release of Brahms' violin concerto, there are no less than fifteen alternate versions of the cadenza, and the listener is again free to choose among them and program their CD player accordingly.

If we recall the four-stage structure created by Baudrillard that was discussed earlier in this thesis, the first stage is labelled as "the reflection of a basic reality," the second

3. Bazzana, *Glenn Gould: The Performer in the Work*, 81.
4. Ibid., 82.

as that which "masks and perverts a basic reality," the third "masks the *absence* of basic reality," and the fourth "bears no relation to any reality whatsoever."[5] The unique nature of these programmable CDs could be categorized as a special case within the third stage. These cases very nearly work within the second category, but one particular aspect of their structure excludes them from this set. While they do, as the second stage dictates, alter the basic reality of a live performance, the fact remains that, in the case of both albums, there was no single, coherent performance to begin with that the representation then deviates from. The discs included in the *Messiah* box set are not continuous performances that the listener then has the option of snipping apart; they are collections of fragments that were recorded separately, and the performance has no 'true' sequence that reflects any temporally-linear reality. The reason this case is highly unique is because the prerogative for assembling a representation that masks this absence of an original reality is left to the listener, and can be fulfilled in a great number of different ways. Unlike the lip-synching cases explored earlier in this thesis, including Whitney Houston as well as the Olympic opening ceremonies performers, this CD set makes no effort to hide its discontinuity; its fragmentation is its selling point. The 'programmable CD' phenomenon was not ultimately something that gained a great deal of momentum, but the fact that it was imagined, executed, and marketed shows a change in the music world's willingness to accept such a recording.

4.1 iPad Instruments and *Biophilia*

In the twenty-first century, technology has made it possible for listeners and laypeople to participate more actively than ever in the musical experience. It has only been two years since Apple's iPad exploded onto the tablet computer scene, but in this short period of time, the device has already revolutionized the world of listener-driven music production. Early apps enabled users to play sampled digital instruments, which ranged from a complex touch-screen MiniMoog simulator, to a simple grid-based robotic synthesizer, to an ocarina that picked up breath input from the device's microphone, all of which made use of the iPad's touchscreen interface to create a highly tactile experience. Apps such as these gave rise to a phenomenon called "iPad bands" or "iBands" that made exclusive use of iPad instruments. Not only is the concept itself unique, but nature of the instruments

5. Baudrillard, *Simulacra and Simulation*, 10.

being used made the viewer's experience unique as well. Of a Christmas performance by Northpoint Community Church's iBand, reviewer Chris Matyszczyk wrote, "If a guitarist were to offer a rock-out version of "God Rest Ye, Merry Gentlemen," he would, at the very least, be able to point his axe towards the audience, fling it over his shoulder, play it behind his back, and pluck the strings until they snapped in pain. Instead, the Northpoint iPad performer holds his instrument politely in his left hand while his right taps out the requisite notes, like a personal assistant tapping in the minutes of a board meeting."[6] These apps make it possible for a user with little or no musical training or music-reading ability to create music, but the visual element of a live performance is, due to the constraints of the instruments, comparatively underwhelming. At an April 2010 performance in San Francisco, however, the iPad was Lang Lang's instrument of choice for his encore. Aided by Smule's "Magic Piano" app, the pianist evoked both laughter and applause from his audience as he stunned them with an iPad rendition of "Flight of the Bumblebee."[7] While the occasion was more of a stunt than a serious performance, it still sent a message. A new technological device had been carried onto the stage and into the realm of classical performance, and was thus introduced to the audience as a means of musical creation not usually seen in the concert hall setting.

Smule's website describes their family of apps that includes "Magic Piano," "Magic Fiddle," and "Magic Guitar," allowing the user to recreate a piece of music by tapping on the screen at the right times and places to produce the notes of the piece. While the genre of video games that includes "Guitar Hero" and "Rock Band" focuses on timing and accuracy, challenging players to hit the notes at the correct time in order to play along with the backing track, Smule's apps have introduced a different type of experience that discards mechanical nature of timing-based music games and introduces a slightly more artistic element. The "Magic Piano" app that Lang Lang used for his San Francisco encore contains three game modes. The first mode is a "freestyle" mode, in which users are free to experiment and create sounds either on a keyboard that can be configured into different layouts, or on a black screen that translates finger motions into keyboard sounds. The portion of the app that comes closest to resembling any sort of game is the "songbook" mode. Users choose from a list of songs that contains popular tunes and

6. "iPad band gives new birth to Xmas carols," CNet News, accessed February 2012, http://news.cnet.com/8301-17852_3-20025064-71.html.

7. "Concert pianist Lang Lang dazzles San Francisco with 'Flight of the Bumblebee'...played on an iPad," The Daily Mail, accessed February 2012, http://www.dailymail.co.uk/news/article-1268353.

classical pieces that vary in complexity from very simple to extremely challenging. Unlike games in the style of "Guitar Hero," a song in "Magic Piano" begins by presenting the user with a silent, black screen. There is no backing track, and the user begins whenever they choose to begin. The app indicates where the user needs to tap in order to produce the next note, using pale shafts of light, but the tempo and timing of the performance is entirely up to the user. Tapping on or very close to the shaft of light plays the next note in the piece and reveals the next light shafts, and the placement of these guide lights attempts to approximate a scaled-down version of the real distances on a piano keyboard. In this way, with no constraints on the timing of the notes, a sensitive user could produce a very expressive version of "Claire de Lune," being free to employ rubato to their taste. Conversely, a user who had never heard "Claire de Lune" would likely find the experience of tapping away in the correct spots but without any knowledge of the correct timing to be a rather unfulfilling experience. "Magic Piano" does not keep score, rate the performance, or pit players against one another competitively; the experience is meant to be a creative one. The third mode available in "Magic Piano" is a duet mode, in which the user is randomly matched with another person who is currently using duet mode, and is given the opportunity to play collaboratively with the app. Both players have their own keyboard interface in front of them, but hear the sounds being played by their partner as well as their own.

Smule has marketed their apps in a way that aims to have the user feel as though they are engaging in an act of musical expression that approximates the experience of playing a real instrument. The introductory lessons included in the "Magic Fiddle" app include portions titled "Bowing," "Upper Body Posture," "Scales," "Vibrato," and "Arpeggios," and the promotional video featured on the product's website shows the members of the St. Lawrence String Quartet in concert attire, performing together on a set of four iPads. The quartet is shown walking into a sparsely-decorated room, iPads in hand, taking a bow in silence, and then seating themselves behind four music stands and performing "Canon in D" on their "Magic Fiddles." The bowties and tails, and the choice of a highly recognizable classical piece invoke elements of the perceived refinement and sophistication of the more inaccessible world of art music and transfer them to an app that is designed to be, by contrast, highly accessible and fun. This juxtaposition is often found as a part of the appeal of many instrumental apps on the market, as developers seek to draw users into an experience that is both musically and experientially rewarding.

2011 saw the release of a music app of an entirely separate breed, when Icelandic experimental artist Björk launched her new album, "Biophilia," as a series of iPad apps alongside the traditional CD release. The "Biophilia" apps invite user participation in the creative process on an unprecedented level, and are perhaps the closest that technology has brought us to Gould's "New Listener" ideals. In the introduction to the app, Sir David Attenborough narrates as animated stars and constellations swirl past:

> Sound, harnessed by human beings, delivered with generosity and emotion, is what we call music. And just as we use music to express parts of us that would otherwise be hidden, so too can we use technology to make visible much of nature's invisible world. In Biophilia, you will experience how the three come together: nature, music, technology. Listen, learn, and create."

Each of the apps, contained within the "mother app" which houses them, centers around one of the ten tracks on the "Biophilia" album and includes a visually attractive game that allows varying degrees of independence and musical involvement. Every app includes a transcribed score that can be followed along with a midi version of the song. An animation that plays along with the original track, where musical elements are represented by geometric shapes and lines, is also included for users who may not be able to read music. In addition, each app includes several paragraphs written by Björk about the aspects of life and nature that inspired it, as well as a separate, lengthier musical analysis. One of the surprises in the app is the strong presence of elements rooted in music theory, the least of which is certainly not these musical analyses, which are credited to Nikki Dibben. The Nikki Dibben of the app is actually Dr. Nicola Dibben, Senior Lecturer in the Department of Music at the University of Sheffield. Dibben has received a research grant from AHRC for her research on the music of Björk, and is the author of Equinox Press' "Björk," published in 2009. Her research page describes her involvement with Björk's "Biophilia" project: "A collaboration with Björk. Providing musicological expertise to Björk and One Little Indian Records. This includes documenting Björk's new project, "Biophilia." Dibben's musical analyses are aimed at a user without extensive knowledge of technical musical terms, but still manage to convey the concepts at the core of the experience of each app. Each track's app offers the user multiple layers of interaction with the music, from "Moon," which invites users to alter the pitch of each note in the ostinato that underlies the track, to "Virus," which offers an instrumental mode that allows experimentation with the component sounds that comprise its parent song, to "Hollow" and its complex rhythmic 'machine' that puts users in precise control

of rhythm and meter. In this section, I will examine in detail three of the apps that enable the most musical involvement, and touch briefly on three others that embody elements of Gould's "New Listener" ideals.

The very first app to be released, "Crystalline," contains a game element which challenges the user to navigate narrow tunnels while picking up coloured crystals in particular sequences. Successfully completing a sequence will unlock a new structural portion of the original song, for example, triggering a chorus section, and will alter the structure of the music that is playing during the game. As such, the structure of the song becomes flexible, and entirely dependent on the actions of the user. Collecting a red-green-purple sequence may, for example, result in the user hearing one version of the chorus, while an orange-blue-red sequence could trigger an alternate version of the chorus, an instrumental section, or a bridge. The visuals over the course of the game reflect the emotional tenor of the music, ranging from black-and-white lines and angles to reflect the sparse nature of certain verses, to expansive space-like vistas that accompany the texturally-rich choruses. The game brings users to junctures in the tunnels that enable them to make choices about the proceeding sections of the song as well, and these opportunities, in conjunction with the crystal-collecting aspect of the game, enable a user to reconstruct the original song in its entirety, or to build customized versions, making it possible to hear a unique song each time the game is played.

As with the other song apps, "Crystalline" contains a score and an animation. The score is meticulously-transcribed, horizontally-scrolling, and carefully reproduces the rhythms in 17/8 meter underneath the vocal line. The score can be followed while listening to a midi version of the song. The animation, by contrast, is a more generalized visual representation of the music, making use of geometric shapes to represent the relative pitches of the notes in the accompaniment. It, too, is a horizontally-scrolling "transcription," though it is more of an approximation than the score, as it lacks bar lines, and even a staff. "Crystalline" makes exclusive use of pale orange, yellow, and green circles to represent the brittle chords underpinning the vocals, and vivid blue circles are used to indicate the relative notes of the melody. While less precise than a score, for a user who is not musically literate, this representation effectively communicates the basic outline of the notes, as well as representing duration visually through the use of varying sizes of circles. In her musical analysis of "Crystalline," Nikki Dibben writes,

> Form in songs depends on repetitions and differences at multiple levels of mu-

> sical organisation. The musical 'phrase,' a group of phrases, up to the level of the whole song, as groups become longer we perceive form instead of hearing rhythm. This shift happens when the duration of the section is longer than the 'psychological present' — the short period of time (between 2 and 7 seconds) in which we can directly perceive a relationship between events without calling on memory. So musical form can be found at various levels but feels different because it uses different perceptual processes. 'Crystalline' juxtaposes musical-physical confinement and freedom, using them as the bases for a musical game, and reflecting Björk's spatial experience of song form.

The user, too, is able to enter into Björk's spatial experience, and the game itself offers a great deal of play value, as numerous structural tunnels can be unlocked through correct crystal collections.

Standing as track number five on the CD release, "Dark Matter" drew criticism from reviewers for its perceived lack of substance and overly abstract nature. Pitchfork's Mark Pytlik remarked, "It feels...as if she's prioritized the superficial aspects of *Bibliophilia*'s presentation over, well, the music. I can't imagine, for example, how a middle section as dull as "Dark Matter"...made the cut." [8] The lyrics are nonsense vowels and consonants, which, as Nikki Dibben's musical analysis explains, is Björk's compositional language that she uses as a placeholder before lyrics are written. In the case of "Dark Matter," however, Björk chose to leave the meaningless sounds in the finished track, intending them to complement the absence of both metrical structure and a clear tonal centre in the piece. These characteristics were chosen for the way they reflect the timelessness and expansiveness of outer space, and the concept of dark matter — the elusive, unobservable substance whose existence is said to account for a great deal of the mass of the universe. The score is notated in 4/4 time, more for reference purposes than because of a perceptible pulse, and carefully reproduces the seemingly-random timing of the tone clusters; however, in the case of a song with a character as abstract as "Dark Matter" the animation perhaps conveys the better sense of the scope of this track. Rather than a close-up, scrolling animation, "Dark Matter"'s visuals are viewed from a distance that precludes scrolling and creates a sense of slow-motion musical movement. Horizontal green bars of widely-varying lengths represent each pitch in the glacially-paced organ

8. "Biophilia," Pitchfork, accessed February 2012, http://pitchfork.com/reviews/albums/15915-biophilia.

underpinnings, with contrasting red circles once again standing in for the vocal line.

"Dark Matter"'s game is notable among the ten available in "Biophilia" because of its particularly strong emphasis on music theory. Two modes are available in the game: a structured song mode, and an instrument mode that gives users freedom to explore the thirteen buttons that, when pressed, sound consecutive pitches from the chromatic scale. The song mode seems to resemble an aural skills quiz more than entertainment, playing a short portion of the song before requiring the user to correctly input a sequence or cluster of notes in order for the song to proceed. Four levels of difficulty can be chosen from, with the easiest level lighting up each note in the sequence as it is played, and the harder levels simply playing a tone cluster, with no light-up aids, that would challenge even users with a good ear. Also of interest is the instrument mode, due to the fact that it does more than allow users to press buttons and hear tones, employing the metaphor of magnetic fields to teach lessons about modality and scales. Nikki Dibben explains, "In the 'Dark Matter' app the musical scale is represented like a magnetic dipole in which electric current circulates. Just as there are forces of attraction and repulsion in magnetism, so pitches within a scale attract and repel each other." Upon opening instrument mode, the user is presented with thirteen glowing points that represent a complete chromatic scale with duplication at the octave, and a background generously scattered with much tinier white particles. Tapping any one of the pitch points not only causes its corresponding pitch to sound, but triggers a flurry of movement. The previously stationary cloud of particles is seemingly magnetized, and pulled into motion in the pattern of a magnetic field around the selected pitch point. Deactivating the first pitch and choosing another sends the particles swirling around the new selection, and activating a second pitch creates a unique orbital path that takes the imagined pull of both points into account. Continuing to add pitches produces increasingly complex polarized pathways, and deselecting all pitch points results in the particles becoming stationary once again. The most prominent feature of the instrument mode, however, is the arcing scale pathways that the app traces between the selected pitches and those of several possible scales that they could belong to. Selecting one pitch brings up four possible scales, and indicates the other pitches in that scale by way of a coloured line that connects to each pitch. Possible scales include major and minor scales, modal scales, whole tone and pentatonic scales, and a host of regional scales, such as Balinese, Iwato, Japanese, Pelog, Kumoi, and Hirajoshi, to list only a few. "Dark Matter" stands apart from the other apps, as it does not specifically enable the user to modify or create portions of the track the game

takes its title from. As Björk explains in an introductory video on www.bjork.com, "This app...happens in outer space, where you can play with magnetic currents and learn about scales...including the minor and the major scales of the Europeans, and the Indonesian scales and the Japanese scales and so on. And you can find out about the different scales by jumping on little stepping stones in "Dark Matter," and in a 'Simon Says' kind of way, learn about scales." [9] As such, the intent of the app is different than many of the others in the set, serving as an educational tool more than a platform for creative collaboration.

The final app that this chapter will explore, "Solstice," is perhaps the most versatile and functional of the set, and from a Gouldian perspective, the one that integrates the listener/user most fully in the creative act. While "Crystalline" allows the user to tinker with the structure of the song, and "Dark Matter" enables exploration of the scales employed in the song, "Solstice" inspires involvement on an entirely different level, providing the user with a tool which serves as a fully-functional sequencer, and the ability to alter Björk's original music behind her vocals with user-created content. On the album track, Björk makes use of a unique experimental instrument which she designed herself: a gigantic, gravitational Pendulum Harp that makes musical use of the earth's gravitational forces to generate slightly irregular, interlocking patterns by swinging past different plectra assigned to each of the pendulums on the harp. Björk retains control of which of its four plectra each pendulum will pluck by means of her own iPad, which she operates onstage in live performances. Turning to the score, the initial nineteen-beat harp ostinato is divided into one bar of 7/4 and two bars of 6/4, but shifts through time-signature combinations of varying lengths as the song progresses, and as Björk adjusts the plectra of each pendulum. The animation, however, shows no bar lines, and allows the patterns to shift and change without the need to fit them into the constraints of time signatures. Certainly the most informative way of observing the working process of the song's construction, however, is to watch the pre-programmed data that is presented upon opening the 'game' portion of the app. The four colour-coded layers of the interface are set to cycle through the different combinations that create the sequences found in the album track, and Björk's vocals play over top.

The "Biophilia" app puts this control in the users' hands, presenting them initially

9. "björk: biophilia: dark matter app tutorial video," NME, accessed February 2012, http://www.nme.com/nme-video/youtube/id/wWgn7FdBKDE.

with a circular workspace, in which an array of coloured 'plectra' can be created, and the ability to pluck them by sending corresponding 'planets' into orbit at varying speeds. The interface contains four layers, and the user is able to activate or mute each layer independently, as well as modify the pitch of each plectrum in real time. Planets, in the same way, can be frozen, reversed, or have the speed of their orbit altered by the user. The app opens displaying Björk's own setup from the album version of "Solstice." From here, users have the option of clearing the sequencer and beginning their own work from scratch, or of simply modifying the existing setup as they wish. The app includes the ability to save designs, and also the ability to record a song version in real time, where the user can activate and deactivate their layers as they choose, accompanying Björk's vocals themselves. This app has seen more involved use than many of the others, particularly because it is capable of controlling external devices. A notable example surfaced on YouTube in October 2011, showing a user operating a setup where the "Solstice" app was used to control external synths and Launchpad controllers in a completely remade 'performance' of the piece with Björk's vocals. [10]

The Guardian published a review in October 2011 that pointed out, "The fact you feel a bit of a mouldy fig for actually mentioning the music—you have Attenborough announcing you're on 'the brink of a revolution that will reunite humans with nature through new technological innovations'—means Biophilia has already succeeded as a kind of multimedia event." [11] The directness with which Björk, her collaborators, and the reviewers of this project have pointed out the way it connects aspects of music, people, nature, and technology is indicative of the extent to which the team succeeded in this regard. While the music itself has had its share of critics, and there are those who argue that the music and the apps are so independent that they seem to have been designed entirely separately from one another, it is universally agreed upon that this project was the first of its kind, and that it broke important ground for the future of music world in the way that it blends the roles of listener, user, and musician.

The question of where an album like Björk's would fall within Baudrillard's four-tiered system is more complex even than assigning a category to the programmable CD

10. "Bjork's Biophilia Solstice app controlling Launchpads and synths," YouTube, accessed February 2012, http://www.youtube.com/watch?v=5WxNJ0xKB9E.

11. "Björk: Biophilia — review," The Guardian, accessed February 2012, http://www.guardian.co.uk/music/2011/oct/06/bjork-biophilia-cd-review.

sets discussed earlier. The reason the programmable discs land within the boundaries of stage three and not stage four is that, when assembled, a programmed 'performance' does sound as though it were an ordinary CD that falls into stage one or stage two. Unless it were pointed out to them, listeners who were unaware of the nature of the CDs could not be faulted for assuming they were hearing a temporally-continuous performance. In this way, the final result of these CDs serve to mask the fact that the recording was not at all documentary in nature. So what can we make of a song like "Solstice," where Björk's vocals remain, but the users are free to modify the underlying accompaniment however they wish? Would a playing of a user-modified rendition of "Solstice" fall into the third category, where it would be assigned the label of a representation that masked the absence of a true reality? Or would it belong in stage four, where it bears no resemblance whatsoever to any reality? The difficulty is created by the insertion of the new, user-created accompaniment (which would lend itself to categorization in stage four) and the retention of Björk's original vocals (which anchors the song to an original reality). A comparison could be made between this app, which leaves the user free to create the accompaniment to the vocals, and the recordings made popular in the mid-twentieth century which provided the orchestral accompaniment to a solo concerto. Both anticipated that the user would contribute to the final sound (the iPad app by expecting the user to tinker with the accompaniment, and the concerto recordings by leaving user to play the solo part along with the recorded orchestral part), and both provide the user with a satisfying collaborative experience, but one key difference remains that keeps the concept behind these two ideas completely separate. In the case of the concerto recordings, users are expected to perform their part in one extremely specific way. They are bound to the tempo of the recording, bound to the interpretive decisions of the conductor who directed the recorded performance, and above all, they are bound to the score. The recording of the orchestra does not leave room for anything but the most cooperative of contributions from of the soloist. In contrast, although Björk's contribution to the "Solstice" app is just as fixed as the orchestra in the concerto recording, users are by no means charged with recreating the accompaniment in order to "play along" as they are with the concerto. On the contrary, users are meant to reinvent the pendulum accompaniment, creating entirely new tracks that may not even adhere to the original metric structures or melodic contours. This makes classifying a song such as a user-created version of "Solstice" particularly challenging.

4.2 Merging the Live and the Mediated

Complex twenty-first century considerations demand adaptations to Baudrillard's system in order to accommodate exceptions such as these. Rather than constructing yet another new system of categorization, I will borrow one which Steve Wurtzler has expanded and modified to treat cases involving these new forms of manipulation, based on an older division by Paul Theberge. Theberge's original binary was designed to separate "documentary" reproductions—where the purpose of the recording was to reproduce a live event, such as an orchestral performance or a singer-songwriter—and "constructed" reproductions—such as a rock song that is recorded by first laying down a drum track, followed by guitar tracks, etc, in order to construct a sense of a coherent performance that could have taken place live.[12] To this two-category system, Wurtzler has added a third possibility that is unique to the last several decades: the possibility of a representation being constructed in such a way that it completely dismantles any sense of an original sound event, and instead creates a copy for which no original exists.[13] Entire styles in recent decades have been characterized by their identification with this category, such as techno, trance, and dubstep, where listeners have no expectation of an album or a track to reflect any kind of performable reality. Similarly, when DJing a concert or event, the performing DJ will mix live, but the centerpiece of the stage is still the DJ booth containing recordings, playback devices, mixers, sequencers, and amplifiers, foregrounding the dependence of the performance on the reproductions.

This third category of Wurtzler's model is successful in describing the complex cases that arise in *Biophilia*. While Björk's original, non-app album that received a standard release to CD would fall into Theberge's original divisions quite normally, it is the post-release involvement of the user that makes the app album difficult to describe. "Copies without originals" effectively sums up the result of a user-modified track, in that the app's manipulation has removed Björk's original recording from its constructed state, and modified it into an entirely new representation that is without a unified original. The product of the user's involvement maintains its ties to reality, and to Björk's original work, yet separates itself from a reproduction that is crafted to reflect the conceptual original.

12. Theberge, "The 'Sound' of Music: Technological Rationalization and the Production of Popular Music."

13. Wurtzler, "She Sang Live, but the Microphone was Turned Off: The Live, the Recorded, and the Subject of Representation," 93.

Steve Wurtzler has also applied his three-level model to visual media, using it to describe the development of television and film over the twentieth- and twenty-first centuries. Though not the first media theorist to propose this (John Ellis and Rick Altman are two earlier examples), Wurtzler argues that television has the same effect on viewers as fully live performances characterized by temporal simultaneity and spatial copresence. Live TV, such as a the broadcast of an event as it takes place, already has the characteristic of temporal simultaneity, but it achieves the feeling of spatial copresence through televisual techniques used to create a feeling of 'anchoredness' within the stadium, concert hall, or arena the in which the original event is taking place. An excellent example of one such technique is the shot shown to home viewers of the commentators' booth in front of the parade or field. Seeing the people whose voices are heard over the event, and more specifically, seeing them situated in front of the event, creates a feeling of immediacy for the viewers, establishing a connection with the location despite their spatial absence. Even when a program is prerecorded and then broadcast, it achieves its sense of temporal simultaneity due to the way it is situated in a particular time slot, and is not accessible again once that time has passed. Even though programs can be recorded easily now, once the show has aired, if it has not been recorded, it cannot be recalled, and 'missing' the chance to watch or record a program still leaves the hopeful viewer with the same sense of disappointment and distress that missing an event that was truly live would leave. Altman writes, "Whether the events transmitted by television are live or not, the television experience itself is thus sensed as live by the home viewing audience...Television programming itself thus takes on the attributes of irreversible reality."[14]

The television medium itself was originally designed to deliver an experience as close to the live as possible for the viewer, and it is from this original intention that TV's perception as live still lingers. Early claims touted the view of live events broadcast on a television set to be the next best thing to being at the event in person, and from their earliest days, TV broadcasts were seen as a substitute for, and thus existed in direct competition with live events.[15] With time, however, a critical shift began to take place in the nature of the television programs being broadcast. An increasing number of programs began to depart from the standard 'documentary' model of programming, and

14. Tania Modleski, ed., "Television/Sound," in *Studies in Entertainment: Critical Approaches to Mass Culture* (Bloomington: Indiana University Press, 1986), 45.

15. Auslander, *Liveness: Performance in a Mediatized Culture*, 31.

shifted in the direction of the 'constructed': programs that may or may not have been filmed in order, and were then assembled under the blade of an editor.[16] Eventually, the majority of TV programs aired could be placed in this category. Shows still aimed to present a believable reality, but were no longer documentary in nature, and no longer needed to be filmed as such. Decades later, technology once again propelled the medium towards Wurtzler's proposed third tier of development, with innovations such as computer graphics effects and animation making it possible for a visual medium to present representations that were copies with no original performance.

When constructed representations grew to prominence in both the music world and the TV and film world, however, an interesting rift grew between the two that still remains. In TV and film, viewers have no difficulty accepting huge amounts of splicing, editing, special effects, multiple takes, and other techniques if it results, in the end, in a better 'performance' by the actors for the purpose of the TV show or the film. For viewers, a film actor has a completely different function than a live theatre actor, and they need not be expected to perform in the same ways. A film actor is not expected to sustain a straight-through hour-and-a-half performance for the cinema screen, execute all their own stunts, or deliver their lines in the best way possible on the very first take. Glenn Gould discussed this phenomenon in contrast with the belief that constructed performances in music constitute 'trickery' or 'cheating.' In classical music, the belief is still widely-held that there exists a psychological arc that extends through a performance, and destroying the continuity of this focus and intention destroys the integrity of the performance.[17] To some degree, there is also a sense of distrust accorded to performances that have been manipulated and spliced together from a number of takes: listeners feel that the editing process is capable of camouflaging an inherent lack of skill on the part of the performer, making them appear to be something which they are not. A live performance leaves no question as to the performer's real abilities. Philip Auslander has addressed this situation as it pertains to the genre of rock music, writing very plainly, "Listeners steeped in rock ideology are tolerant of studio manipulation only to the extent that they know or believe that the resulting sound can be reproduced onstage by the same performers. When that belief is substantiated, the music is authenticated. When it is shown

16. Wurtzler, "She Sang Live, but the Microphone was Turned Off: The Live, the Recorded, and the Subject of Representation," 88.

17. Gould, "The Grass Is Always Greener in the Outtakes," 359.

(or even strongly suspected) to be false, the music is condemned to inauthenticity."[18]

Auslander presents the Beach Boys' *Good Vibrations* as an interesting model for this claim. This track was a key turning point for the group in the establishment of their authenticity, as its studio-manipulated complexity made it difficult to perform live. With its carefully-crafted sounds that were developed and pieced together over numerous recording sessions, *Good Vibrations* was truly a piece of studio artwork, but the Beach Boys, as a group that followed in the tradition of performers such as The Four Freshmen and Chuck Berry, had difficulty establishing their authenticity without the ability to perform their hit live.[19] By 1969, the Beach Boys had eventually worked through the difficulties of taking the song to the stage, and it was this success that helped reestablish some credibility for the group.

Perhaps the most interesting case study relating to this issue of manipulation and authenticity is the monumental uproar that was caused by the Milli Vanilli debacle in 1990. In this unique situation, we see the earlier set of rock values described by Auslander colliding with a newer set 21st-century values that have discarded live performance as a means to the validation of authenticity. Well before Milli Vanilli was awarded the Grammy for "Best New Artist" in early 1990, the group had drawn criticism from reviewers for their alleged use of lip synching in live performances. The accusations were not unique; performers such as Madonna and Michael Jackson had been similarly scrutinized, but the trigger that opened the floodgates on the scandal was the admission later that year from their producer that not only had the duo indeed lip synched their performances, they had not even been the ones singing on their album.[20] The group's Grammy was revoked. One might have expected that the disgrace with which Milli Vanilli were stripped of their award, required to issue refunds to consumers who had purchased their album, and shoved out of the limelight would have reinforced the values of liveness and authenticity instituted in earlier decades, but in fact, this was not the case. Milli Vanilli's fans were simply not concerned with which voices were behind the performances on the tracks they loved; it was the older generation of parents, critics, and lawyers who took offense, and it was this marker of a generational change in values

18. Auslander, *Liveness: Performance in a Mediatized Culture*, 82.

19. Ibid., 80.

20. Rob Tannenbaum Craig Marks, *I Want My MTV: The Uncensored Story of the Music Video Revolution* (New York: Dutton, 2011).

that signaled an important shift in the priorities of the music world.[21] More than twenty years later, live performances' dependence on automation has not only failed to decline, it has gained increasing acceptance. Theberge wrote,

> The Milli Vanilli lip-synching scandal of 1990 must be seen as the culmination of nearly a decade of concern over the status and legitimacy of live performance in an era of sequencers, samplers, and backing tapes. For critics the problem was not simply that musicians were trying to sound like their recordings when performing on stage (A longtime preoccupation among pop musicians) but that concerts had indeed *become* recordings.

What this shift indicated was that music production was moving further from its original status as a documentary form, and further from its second stage of development as a form that constructed a performance, and into the third stage, where a recording was no longer representative of any original performance. Recordings had gradually become simulations. Now performances, too, were merely elaborate representations with no basis in the real.

One lesser-known fact about the Milli Vanilli episode remains: NARAS (The National Academy of Recording Arts and Sciences) knew full well what the rumours had to say about Milli Vanilli's lip synching, and, furthermore, one member of the voting committee who actually voted for the duo had inside knowledge about the truth of these claims, and was even aware of the fact that Milli Vanilli had not been the performers on their recordings.[22] The fact that this member was still willing to vote for Milli Vanilli to receive the Grammy, and the fact that NARAS was willing to confer the award on the group despite the controversy surrounding them reinforces the order of the priorities of the Grammys, and of the industry they represent. As the name suggests, the mandate of the Grammys is to recognize exceptional recordings. Values such as the ability to perform a track live, and authenticity, in the way the rock, classical, or jazz communities might define the term, are simply not critical considerations. Auslander writes, "Historically, NARAS has been overtly hostile to rock music...neither the pioneers of rock and roll...nor most of the important figures of rock...have been awarded Grammys. From this perspective, the awarding of the Grammy to Milli Vanilli, a pop group *par excellence* that existed musically only on its recordings, was hardly aberrant. Rather, it seems to

21. Auslander, *Liveness: Performance in a Mediatized Culture*, 85.
22. Bruce Britt, "Milli Vanilli's pact with the Devil," *Los Angeles Daily News* November 21 (1990).

have been the logical expression of NARAS' values."[23] This would seem to indicate that NARAS revoked Milli Vanilli's award, not because they were stunned at the revelation of a deception they had bought into, but because their hand was forced in manufacturing what Baudrillard calls a "scandal effect" to "regenerate a principle in distress."[24] Had NARAS acknowledged their intention to award the Grammy to a group that was based on a simulation, the principles on which their authority was founded would have been jeopardized. Instead, revoking the award reestablished NARAS' position as a moral, discerning arbiter, preventing a collapse of the industry's power structure. Auslander has delved into an in-depth analysis of the aftermath of this episode in the history of pop music. The many details of the situation in the following few years are not essential to this current discussion, but the conclusions he drew in 1999 are very relevant: Auslander looks back to the generation of listeners who were unconcerned with the lack of authentic representation in Milli Vanilli's music, and speculates, "When this latter generation assumes 'power,' the regime of simulation may be in full force, its expansion into and voiding of the realms of the social and the political may be complete."[25] It has now been more than a dozen years since the publication of Auslander's conjecture, and the generation in question has since reached adulthood. Has Baudrillard's conception of the final stage in the "political economy of the sign" been established in today's culture? What of Wurtzler's "copies without originals"? How has the element of user involvement as demonstrated in *Biophilia* played into this development?

Biophilia may represent the pinnacle of user-driven music/app technology in the realm of the iPad, and as exciting as the innovation is for the music community, the app album is just one incarnation of a widespread push for listener involvement. The remainder of this chapter will discuss a recent musical phenomenon that stands as the culmination of both user-driven music technology and musical simulation: the world of Vocaloid music, and its number one star, Hatsune Miku.

23. Auslander, *Liveness: Performance in a Mediatized Culture*, 95.
24. Baudrillard, *Simulacra and Simulation*, 26-7.
25. Auslander, *Liveness: Performance in a Mediatized Culture*, 111.

4.3 Japan's Electronic Pop Star

"Hatsune Miku is a sixteen-year-old girl with long green pigtails and a voice with a range no human could ever hope to match," states the opening of a documentary produced by Asahi in March 2009 titled, *Vocaloid Hatsune Miku, The World's Virtual Diva*, "She is a virtual singer with a computer-synthesized voice, a work by creators who met on the internet. Many of the songs she sang have proven to be so appealing that the music industry cannot ignore her. She has developed into a singer with a large worldwide following." The technology that laid the groundwork for Hatsune Miku's rise to the top of the charts was a vocal synthesizer developed by Yamaha Corporation in 2004 simply called *Vocaloid*. The program, intended for use by music professionals, made use of hundreds of phonemes sampled by a voice actor, and allowed songwriters to string together sets of these small blocks of sound, modifying their pitch, duration, dynamics, and other vocal effects to produce a surprisingly effective recreation of the human singing voice. In 2007, Yamaha released *Vocaloid 2*, and the newer version provided even more realistic synthesis, increased functionality, and a greater number of language packs that expanded the voicebanks of the program.

August 2007 saw the release of a new application based on the *Vocaloid 2* technology. Crypton Future Media Inc., a Sapporo-based company, harnessed the potential of the *Vocaloid 2* software, and marketed an application called *Hatsune Miku* as a "Virtual Pop Star," combining a vocal sound that was perceived as being more sweet and gentle, with a cute, cool, anime character that gave the application an attractive image. The young, teal-haired pop star and her dynamic voice were an immediate runaway success. In Asahi's documentary, Wataru Sasaki, a developer at Crypton, comments on the astonishment the team felt at the program's immediate success. "We didn't expect it to be so widely accepted," he said modestly, mentioning the fact that 3000 reservations were made in the first twelve days of the product's release, and 40 000 copies had been sold in the first year of sales alone, vastly exceeding the company's expectations of such a complex program with such a narrow band of society being potential users. A UK newspaper puts these figures into perspective, explaining that in this notoriously small industry, a synthesizer program that manages to sell 1000 copies is considered a great success.[26] It wasn't just the software that was a tremendous success, however. Both

26. "Virtual star to be unleashed on US," The Independent, accessed July 2012, http://www.independent.co.uk/arts-entertainment/music/2291713.html.

professional and amateur songwriters began producing songs using Hatsune Miku that were of surprisingly good quality. Victor Entertainment Inc. eventually released a compilation CD of songs written for the vocaloid star by different users. Masaki Kaneko of Victor Entertainment describes its astonishing success: "100 000 copies were sold. All of Japan caught the fever. People with no Internet connection likely bought it. So many copies were sold even people in the music business were taken by surprise." Hatsune Miku's well-loved image has been transferred to video games, figurines, and an array of other merchandise. Perhaps the move that surprised the world outside of Japan the most, however, was her arrival on the concert stage.

Hatsune Miku's first "live" performance was in 2009 at the Animelo Summer Live 2009 Re:bridge concert, and the event attracted a standing-room-only crowd of 25 000 spectators.[27] The virtual star is not actually physically present in these concerts; a nearly-transparent screen is set up across the front of the stage, and a video image is projected onto it, showing the pop idol singing, dancing, and providing a visual focus for the audience in a concert where the singer's vocals are, of course, pre-generated. Since this first concert, Hatsune Miku has been present on stages in different locations around Japan, as well as overseas in Singapore and the United States. Every performance was a monumental success, even Los Angeles' 2011 Anime Expo concert, which was a surprise sellout, attesting to the growing international market for vocaloid music. Even as recently as earlier in 2012, half a decade after the vocaloid's release, in a UK-based popularity survey asking respondents to indicate whom they would most like to see in performance at the London Olympic Games, Hatsune Miku came in at number one, outranking pop stars including Justin Bieber and Lady Gaga.[28] It seems that the late-twentieth-century predictions by Theberge and others about the trajectory of popular music, and its accelerating shift towards representations that no longer have any original referent in reality, are being realized more fully, and more distinctively, than even they could have anticipated. The results of this type of concert are particularly interesting: in the case of a Hatsune Miku performance, there is a non-live "performer" at the centre of the stage, "performing" music that has no original, creating a sense of authenticity through the audience's familiarity with the popular songs as well as the convincingly-

27. "Hatsune Miku Virtual Idol Performs 'Live' Before 25,000," Anime News Network, accessed July 2012, http://www.animenewsnetwork.com/news/2009-08-23.

28. "Virtual idol Hatsune Miku topping 2012 Olympics poll," ZDNet, accessed July 2012, http://www.zdnet.com/blog/asia/virtual-idol-hatsune-miku-topping-2012-olympics-poll/765.

human dance moves programmed for the performing hologram. However, despite the thoroughly artificial nature of these concerts, they are generating fully live involvement from the audience in response.[29] Crowd participation at Hatsune Miku's performances is incredibly complex. Attendees arrive armed with colourful glowsticks, and execute choreohgraphy that has been discussed and pre-arranged online, and is meticulously synchronized with the performance onstage. Aside from their dance moves, the audience responds in ways that belong to the world of live performance. On the popular *Mind of Miku* blog, an attendee from the Los Angeles performance describes an interesting sequence of events from the concert's conclusion:

> It seemed like the concert was over, because the live band left the stage, but the audience was shouting, MIKU! MIKU! MIKU! MIKU! for 5 minutes straight. She finally appeared (costume change?) with [another vocaloid]. After she left again, they then started chanting, Encore! Encore! It was a very touching moment when Miku appeared again, started singing, then stopped mid-sentence, to wipe away a tear and the audience was cheering her on (Ganbatte!).

The audience interaction at Hatsune Miku concerts raises big questions. What needs to be said about the audience's very emotional response to the series of encores, and to the preprogrammed, virtual tear shed by the animated projection in Los Angeles? When the audience is watching a performance which they know full well is not live in the slightest, what exactly are they responding to?

A large part of the answer to these questions is tied up in the answer to a very different question: What was it about Hatsune Miku that caused her popularity to skyrocket, and her success to be underpinned over the years by such a dedicated fan base? In the exact same way as previous case studies in this thesis have considered the development of other forms of media—as products of the cultures that produced them, and not as technologies that were discovered complete with sets of rigid uses and eventual applications—the Hatsune Miku phenomenon must be considered in the context of the culture in which it developed. When Yamaha released its *Vocaloid* software, there was not a person who said, "Oh, good, now we can create virtual pop idols, and have concerts featuring holographic performers!" There was still a long road of innovative application,

29. Ken MacLeod, "Let's Get Physical: Popular Music, Sports, and the Body" (University of Ottawa GMSA Conference, 2012).

collective modification, and cultural acceptance ahead before this possibility ever became plausible. In order to understand how Hatsune Miku came to become the icon she is today, we must look at the culture of the online community that essentially created her: a Japanese video-sharing community called Nico Nico Douga.

Nico Nico Douga (which translates to "Smile Videos") is a site for uploading videos. The uploaded videos are categorized, and a community of approximately twenty-three million members engages with them, viewing, ranking, tagging, and commenting on them. To a Westerner, it sounds similar to YouTube, but there are a few very critical differences. First of all, the interactions that take place on Nico Nico Douga are characterized by a high level of anonymity. Usernames are not associated with posts or comments, and are in fact very difficult to trace back to a specific user's online identity, never mind their true identity. Secondly, in sharp contrast to YouTube, where users' comments on a certain video are sorted by date underneath the video, but are read separately from the video itself, often after a viewer has finished watching it, Nico Nico Douga employs a comment system in which users' anonymous comments are attached to a specific moment in the video. Not only are the comments then associated with the precise section that generated the response from the user, but they also are shown scrolling across the uploaded video as it plays, creating a dense stream of feedback that is viewed simultaneously with the video. This collision of information appears very cluttered and distracting at first, but what it succeeds in producing is a collective, real-time feedback system, in which successive users are often responding to previous comments, in addition to the video itself. The third major difference between Nico Nico Douga and YouTube is the makeup of the content uploaded, and its use after uploading.

The large majority of Nico Nico Douga's content is user-created. Popular categories include videos of users attempting performances, such as "Tried Dancing," "Tried Singing," and "Tried Playing an Instrument." As the names suggest, the efforts are casual, and feedback is generally supportive in nature. Another area that receives a large volume of submissions includes the category that covers vocaloid music, and this is the area that most effectively demonstrates what the Nico Nico Douga community does best. An uploaded video is not a standalone object. One of the major functions of the website is the evolution and adaptation of videos, when an uploaded item is remade hundreds of times in hundreds of different ways by users, with subsequent remakes building on the improvements of others, in a collective process that results in products of extremely high

quality. A typical process may begin with a user uploading a song they have written, continue with other users submitting remixes, other users submitting illustrations, animations, and videos, many of which eventually transform the song into a carefully-crafted story with impressive instrumentation, visuals, and production work. A famous example of this process took place in 2010, beginning with a strange but innocuous question that was posed on the Japanese *Yahoo! Answers* website. The author explained in his question, titled, "When I get home my wife always pretends to be dead" that his spouse had developed a strange custom of greeting him at the door by pretending to lay dead on the floor in a unique way every day:

> One day, an arrow was piercing her head. The other day, she was putting a plastic bag on her head. She was wearing a military dress and had an honorable death in battle with holding a gun yesterday.
> It seems she bought a military dress at a military shop. I warned her not wasting money. Then, she was ate by an crocodile of her own making today.
> ...What she wants me to do? Where is she going? I haven't got a clue. Please tell me why.

The bizarre but humourous question went viral, shared through Twitter, Mixi, and internet news sites. Two weeks later, a song created using *Vocaloid* was uploaded to Nico Nico Douga, and was an instant hit. The lyrics mirrored the descriptions given by the original question of some of the unusual death scenes created by the questioner's wife, and created a touching portrayal of the conclusion the Yahoo! community had come to: that the wife was simply trying to bring amusement to their routine life, and was being creative during her long days at home alone. The Nico Nico Douga community set to work immediately, taking the song and producing numerous fan art drawings and animations to accompany the track visually. The real-time comments on these videos were abuzz with feedback, too, subtly shifting the course of subsequent submissions. These videos soared to such heights of popularity that the community even produced a couple of live re-enactments that were based on the most popular animations, and compilation discs were released that included covers, animated videos, and movie clips. Comics that illustrated the story were published, the original vocaloid track was included on a high-profile vocaloid album, and fan art merchandising continued into 2011 and 2012.

This case study, despite its strange subject, is a perfect example of this highly-collaborative, anonymous community, and the incredible power it wields for collectively

producing high-quality content and shaping cultural trends. A simple idea created a flood of content, which was then refined by the community before arriving in mainstream culture. Were it not for the work of Nico Nico Douga, Hatsune Miku is another cultural icon that would never have had the success and popularity she eventually attained. Vocaloids hold a special place on the video website, with thousands of uploaded videos being related to the virtual pop idols. Hatsune Miku is by far the most popular, however, with over nine thousand uploads to her name, compared with approximately one thousand for most of the other vocaloids. Nico Nico Douga was the epicentre for the Hatsune Miku explosion. It all began just a few weeks after the Hatsune Miku software release in 2007, when the first video to feature the new vocaloid was posted to Nico Nico Douga. The upload received a warm welcome, and Nico Nico Douga's usual wave of spin-offs, collaborations, contributions, and discussions carried the new vocaloid up to the status of an icon. Asahi's TV documentary briefly mentions the development and use of a new program that was adopted by Nico Nico Douga: Yu Higuchi's freeware 3D animation package, "Miku Miku Dance." Designed to enable users to create high-quality animated music videos and dance sequences for vocaloid songs, the program was a runaway success, and its popularity eventually resulted in the establishment of a twice-yearly Miku Miku Dance video competition.

The popularity of vocaloids, Hatsune Miku, and Miku Miku Dance in the Nico Nico Douga community soon reached critical mass and spread into mainstream Japanese culture, resulting in press coverage, celebrity endorsements, and signing of talented vocaloid songwriters to major record labels. Huge amounts of Hatsune Miku merchandise was produced and marketed, live concerts commenced, manga, anime, and video game series focused on the vocaloid idol, and her popularity began to spread internationally, successfully making the jump to YouTube as well as foreign iTunes stores.

Hatsune Miku's case study stands at the end of this thesis as an example of the culmination of all of the themes presented and explored within it. We see first of all that the vocaloid software was not created in hopes of creating a virtual pop idol industry; it was the culture that used the technology that determined the course of its development and application. Secondly, it stands in the line of technologically-mediated performances that has included Olympic lip-synching debacles, animated fireworks, the Milli Vanilli scandal, and pre-recorded half-time performances. If we attempted to place Hatsune Miku's concerts into Wurtzler's division of performances according to spatial co-presence/absence

and temporal simultaneity/anteriority, we would be forced to categorize it as neither spatially nor temporally present, and yet, an extra distinction separates it from other items in this category. This distinction is summed up by Baudrillard's and Auslander's philosophical structures, in which the final tier is occupied by "copies without originals"; reproductions without any precedent in reality. Finally, Hatsune Miku represents the ultimate in media forms in which the listener is in absolute control, having been brought to popularity and being continuously defined by a dedicated and diverse fan base. Every stage in the development of Hatsune Miku's "work" is created by users from all walks of life, from composition to narrative development, and even the content of her concerts is determined by popular vote. In this sense, this Japanese Vocaloid fulfills Glenn Gould's decades-old dreams of seeing listeners involved in the creative process in unprecedented ways. Far beyond dial-twiddling, far beyond splicing together bits of the performances of others, Hatsune Miku's fans on Nico Nico Douga have collectively created the musical identity of an artist who fully and exclusively represents the wishes of the masses. Asahi TV's documentary expresses their hope for the future of vocaloid performance saying, "As technology advances...the whole world could be filled with a new art that rises above existing concepts." Whatever this new art will be, the technologies that enable it will be just the beginning, and it will be the needs and inclinations of the society that gives rise to it that will steer the trajectory of its development.

Chapter 5

Conclusions

In three chapters, this study has flown through a little over a century of the history of recorded sound, pausing now and then to plunge deeply into case studies that hold significance for the development of recorded media, or further the themes of mediation, manipulation, and mediatization. The early twentieth century saw the development of increasingly-effective methods of capturing sound, and of reproducing it through the mediation of mechanical devices. Half a century later, technicians developed methods of physically altering a recording, allowing unprecedented control over what listeners would ultimately hear, through careful manipulation. In the latter part of the twentieth century, and the early part of our present century, we can observe the far-reaching effects of mediatization on our culture, due to the overwhelming dominance of mediatized forms of communication in every area of our lives. This thesis has focused on case studies from each of these three periods of change, detailing the ways in which cultural need and individual innovation have interacted to propel new technologies towards their eventual applications..

This project began with a consideration of several influential works in cultural and sound theory. One of recording technology's earliest treatises, Walter Benjamin's *The Work of Art in the Age of Mechanical Reproduction* introduced the concept of the "aura" attached to an original work of art, and described the way in which reproduction stripped an original artwork of its authority, making it indistinguishable from its copies. Referring to film and photography in particular, Benjamin coined the phrase "copies without originals." This concept has recurred in each case study in this thesis, often invoked by different scholars to refer to phenomena completely different than what Benjamin origi-

nally had in mind.

Chapter two traced this progression from the early days of the phonograph to the "hyperreality" created by blending the live and the mediatized at live concerts and events. Jonathan Sterne's work on the Victorian culture of preservation presented an insightful answer to the question of what the cultural conditions were at the time of the phonograph's development that drove recording technology along its eventual path. Enbalming, canning, and the Victorian focus on death were some of the factors in this case study that pulled phonography away from other possibilities, such as broadcasting, and towards its function as a mechanism for the preservation of sound. As Payzant pointed out, however, even at this early stage, and despite society's hopes and fantasies about the phonograph as a means of completely objective and permanent preservation, the phonograph was capable of neither. Recording, from the very beginning, has been a subjective procedure, subject to the technical skill and artistic vision of the people involved in producing it, which creates a distinct recorded artifact, and not a replication of the live event. Late-twentieth-century theorists extrapolated this idea into the present to demonstrate an increasing trend in subjective mediation and manipulation in recording technology.

Chapter two explored case studies from the Beijing and Turin Olympic opening ceremonies, as well as a Super Bowl rendition of the American national anthem, where certain visual and audio aspects of the performances were prerecorded, computer animated, lip synched, and mimed, all in the name of producing a perfect performance. The public's outcry in response to finding out about the substitutions was based not necessarily on the inclusion of the enhancements themselves, but on the fact that they believed they were witnessing a fully live event, and felt they had been deceived. Steve Wurtzler's model, which divides performance into four categories based on spatial and temporal criteria, provided a much-needed update to the old binary of "live versus recorded" that has been upset by hybrid performances such as the Olympic and Super Bowl debacles, and provided an effective means of categorizing performances that blend elements of the live and the mediatized experience. The same trend carried through into the world of studio recording, with increasing amounts of manipulation and special effects being necessary to produce a perfect performance, just as in the highly-mediated world of live performance. Robert Philip's work underscored this point, with his work on very early orchestral recordings pointing to a dramatic shift in the level of perfection demanded

by listeners as the twentieth century progressed. Steven Connor, Philip Auslander, and Jean Baudrillard all point to the escalating entanglement of the live and the mediated as the source of today's unrealistic performance expectations, artificial hyperrealities in stadium concerts, and forced manufacturing of authenticity. The ultimate end of this confused blending of creation and reality remains to be seen, but symptoms that have already emerged include excessive special treatment for performance forms that are hyperconscious of their liveness, and a cultural need for greater intimacy with experiences that are billed as authentic and intimate.

Chapter three's examination of Glenn Gould as a champion of the new possibilities created by tape splicing and audio manipulation considers a new type of "copies without originals." Gould's shocking decision to abandon the concert world was based on his belief that music could be better served by the potential afforded by the recording studio, specifically, to dissect and reassemble carefully-conceived performances that were constructed from a number of individual takes. The final product had no unified referent in reality, and for many musicians in Gould's generation, this was both terrible musicianship and unacceptable deceit. Scholars who have studied Gould's work applied the term "idealism" to his musical approach, indicating that it was his fundamental belief that music was, above all, mentally constructed, that gave rise to his controversial methods. Gould was associated most closely with music which enabled him to pursue his idealistic values further, and he tended to reject any works, composers, and techniques that did not fall into line with his ideals. Closeted in the recording studio, Gould sought to escape the relentless tyranny of time's one-way flow, in order to fully mine the richness of the cerebral structures of the music he championed. He spliced together takes of completely different musical character, experimented with innovative microphone techniques, and overlaid independent piano parts to create physically-impossible transcriptions of orchestral works. Gould had faith in musical listeners, too, to eventually come to appreciate his work, and to begin to participate in this process of manipulation in their own way, becoming what he called, "The New Listener." He imagined a musical future in which listeners would feel free to splice out a movement or a few measures from their favourite version of a work, and substitute it into another performance, creating their own ideal listening experience. Gould had his share of opposition from performers and listeners of his generation, and spent a great deal of effort in writing essays and articles to defend his views. Ultimately, he hoped his readers and listeners would come to understand his beliefs: that audio manipulation served to free musical performance from the constraints

of linear time, and constituted not an immoral intrusion, but a tool for creating, once again, the perfect performance.

Decades after Gould's death, new technologies were developed that seemed to indicate that his ideas about New Listeners were not as far-fetched as they once seemed. Programmable CDs and later, creative iPad apps emerged that seemed to fulfill his predictions about listener involvement in a new way. Björk's recent album release, *Biophilia*, marked a turning point in the recording industry as the first album to be released both as a regular album and as an interactive "app album." The songs contained in the app album include a host of interactive features, with some enabling users to tinker with the structure of a song, much as Gould imagined, and others enabling users to take complete control of a song's instrumentation. Objects like these straddle the boundaries between categories in both Auslander's and Baudrillard's theoretical structures, combining traditional, fixed elements with completely flexible elements, with the product being neither one nor the other. Steve Wurtzler's model, created specifically to treat complex cases in recent decades, has a category that classifies special cases such as performances produced by *Biophilia*, media hybrids, and animated television shows. This category is characterized by this thesis' recurring term, "copies without originals."

Standing as the culmination of both user-driven music creation and Baudrillard's economy of the sign, as well as a perfect example of copies without originals, the emergence of vocaloid music in the last few years has opened up entirely new possibilities for music creation. Yamaha's *Vocaloid* synthesizer software received only moderate attention after its release in 2007, but the *Hatsune Miku* application, which coupled a cute character's image with a gentle singing voice, was a runaway success for Crypton Future Media Inc., and triggered the explosion of vocaloid music's popularity. One of the most interesting phenomena resulting from Hatsune Miku's popularity is the staging of live concerts that feature the virtual star performing as a projected image. The incredible fan base behind Hatsune Miku that made her performances and album releases possible was formed in large part thanks to the community of the popular video website Nico Nico Douga. In a remarkably similar way to what Glenn Gould might have imagined, the Nico Nico Douga community excels at taking musical ideas, and through extensive collaboration, refining, and remixing, elevates them to standards of excellence that would have been impossible for a single amateur listener. Here, we truly see perhaps the ultimate example of copies without originals. Unlike the mid-twentieth-century, where a

spliced-together performance was seen as existing without a true original, since it was not a copy of an original, coherent performance, and certainly unlike Walter Benjamin's idea, where a photograph of a landscape constituted a copy without an original, due to the nature of the film-based photograph itself, Hatsune Miku's music truly has no original in reality, whole, spliced, or otherwise. The music itself is computer-synthesized, the accompanying dance videos are computer-animated, and even the concert experience is merely a graphic projected onto a screen accompanied by pre-created music. The cultural thrust that led to Miku's popularity, and the public's willingness to accept virtual music by a virtual pop idol, speaks a great about the shift that has taken place in our culture recent decades. A generation ago, Milli Vanilli's listeners showed that they were willing to remain fans of the group, even when confronted with the fact that the duo was not performing their own music. The next generation has created their own virtual star, without the need for even a live human being to put a face to the music.

As each of these case studies has shown, it has been a combination of forces, such as cultural need, individual innovation, and social involvement that has directed the development of technology, and created the boundaries within which we identify media today. No new medium is ever born with its future fully decided, and it is the needs, ideals, and perceptions of people that eventually put it to use that determine its function. This thesis has explored several ways in which technology and media have been utilized, and has discussed what this information reveals about the cultures that fostered them; inevitably, future generations will have a host of new technologies to examine, and will draw conclusions about society based on how we apply new innovations to our lives in the years to come.

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