

**MODERN ELECTRONIC MUSIC:
BREAKING DOWN THE PRODUCER/CONSUMER DICHOTOMY**

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ABSTRACT

This thesis investigates how modern technology, such as the internet and computer software, has deconstructed the traditional relationship between the music consumer and the music producer/maker. The internet, in particular, has facilitated the production and distribution of music to a potentially world-wide audience without using the traditional avenues offered by the recording industry. Advancements in computer software have also enabled the amateur composer to write and record music without the knowledge, experience and tools utilized by the professional composer or songwriter. The resulting style of music composed by using this software is electronic popular music and many parallels can be drawn to the history of modernist electronic music. To explore this, I have conducted interviews with people from different parts of the world who are currently active in composing and distributing music using the Internet. These amateur composers also use computer software to facilitate the production of their music without using traditional means. Drawing parallels between postmodernist theories and the success of their projects and personal experiences demonstrates the breaking down of the producer/consumer dichotomy.

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Introduction

In the Western world, technology is synonymous with progress. The very idea of technology is linked with advancement in the West. Not only does it support advancements in the material sense, but it impacts the methods by which we do things; increasing the variety of ways we have to gather, dispense and apply information.

Every aspect of what we understand as music is somehow shaped by technology. Instrumentation, notation, dissemination, performative aspects, even the way we listen to, think about and understand music is about and related to technology. Technology is embodied in the very definition of what we call music.

The twentieth century has seen amazing and rapid advancements in technology. For example, the ability and responsibility we have invested in computers to make our lives easier and faster is evident all around us. Since the development of digital technologies, it has become difficult to escape the involvement of computers in our daily lives.

The use of computers to make music is not new. For at least half a century electronic instruments and the digital manipulation of sound have been integral to the production of music of all genres. The early years of the twenty-first century, though, mark an important and complex time in the relationship of music and technology. The very definitions of what constitutes a consumer or a producer of music are being convoluted and unraveled because of technological advancements. This thesis explores the ways in which advancements in

computer technologies have assisted the blurring of the dividing lines between these traditional definitions. Because of these technologies, the amateur musician has the opportunity to produce and disseminate music in ways that, only a few decades ago, were privileged to professionals.

An important and integral part of this thesis is the inclusion of ethnographic research. As many of the ideas presented in this thesis are somewhat abstract in nature, I believe it is important to ground this research in primary sources, the experiences of people who engage in the kinds of activities I discuss. This thesis includes interviews with computer music amateurs who come from a variety of backgrounds, interests, intentions and geographic locations. Some of the interviewees are personal friends, others are contacts provided by people interested in the topic. The interviews were conducted by corresponding through email. I would ask general questions and let each interviewee relate his/her own experiences and relevant information.

Each person interviewed was encouraged to write about his/her experiences with producing and consuming music using computer technologies. I followed up our initial contact with specific questions pertaining to that person's experience. We used email to correspond frequently so that I would have documentation of our conversations and clarification of the issues that arose. Each interviewee was also required to sign a consent form allowing the use of his/her information for this project. Since all the interviewees brought forth very different experiences, my questions were always tailored to the individual. This

provided me with a wealth and variety of experiences and insights. The following will serve as an introduction to these musicians, who will be referred to by their first names throughout the thesis.

Chris Reynolds is a computer-software salesman in Toronto, Ontario, Canada. Of all those interviewed, Chris is the most extensively trained in music academia, having completed a four-year music program at McMaster University. Chris has been involved in writing pop music for many years, though the past three years or so has begun to use computer software to record his music. He mixes his acoustic compositions with electronic sampling. Chris also supplied the most samples of compositions, which greatly benefited this project.

Adam Shedden is a visual coordinator also working out of Toronto, Ontario. Like Chris, he also has some classical training but for many years has been writing strictly electronic music utilizing synthesizers and drum machines under the name *Synthetic Solution*. Adam contributed an abundance of experience regarding the distribution of his music over the Internet. Adam has also recently joined the band *Birthday Massacre*. By marketing themselves and making their music available over the Internet, *Birthday Massacre* has a worldwide Internet following of thousands.

Peter Tomic hails from Hamilton, Ontario, Canada and composes, records and distributes hip-hop music over the Internet. He is currently working on many joint projects with other hip-hop artists from different parts of the world.

Dave Adkins is from Bury St. Edmunds, UK. He is currently producing his own album using his computer to compose, sample, mix and master. Dave sports a large amount of equipment including midi keyboards, samplers, mixers and various other hardware attachments for his computer.

James Elphick, a resident of Brighton-Le-Sands Australia, describes himself as a music enthusiast rather than a musician. He records his original guitar and keyboard music on his computer and posts it on his own website.

Cameron Kennedy, from Sydney, Australia, has contributed many interesting perspectives to this thesis. He avidly uses the Internet to consume music by downloading countless MP3s as well as to produce his own music, mostly for monetary and geographical reasons. He uses the computer to record bits of acoustic music and incorporates sampling and other electronic devices. He is aspiring to have a career in Music.

Leeza Khayutin is a music student at McMaster University. Although she does not compose music, she frequently uses the computer to consume music through downloading songs and albums. It is through Leeza that I was able to make contact with Jim, Cameron and Peter.

Although the people interviewed for this project have come from a variety of experiences, they all use the computer to consume and produce music. It is my contention that computer technologies and the Internet can facilitate a symbiotic relationship between production and consumption to the extent that it is difficult to isolate one activity from the other.

This thesis explores the role of the amateur as producer and consumer and considers how computer technologies have shifted power into the hands of the amateur. Besides the facilitation of production, recording and dissemination, these technologies have also made the act of composition, previously the exclusive domain of the trained professional, available to the amateur.

CHAPTER 1 – TECHNOLOGY & ELECTRONIC MUSIC

Before launching the exploration of the role of the consumer/producer, I would like to discuss various aspects of technology and electronic music.

[1.1] Technology

Timothy D. Taylor identifies two predominant ways of studying technology. The first, “Technological Voluntarism”, is a perspective that views technology as a tool that people use and is only good or bad according to how they employ it. (Taylor 2001, 26) The second perspective, “Technological Determinism”, posits the view that the technology is in control, as “technology is assumed to transform its user directly.” (Taylor 2001, 26) The difference between these perspectives is in the site of the agency of control: either with the user or with the machine. Both perspectives show that regardless of which side maintains control, both technology and humans are inextricable from the equation.

An alternate approach suggested by Taylor is to view technology not only as a tool but also as a methodology. To use the computer as an example, the machine itself is a technology, although so is its application. Technology uses and is used. Agency is shifted back and forth from human to machine in a continuous and interdependent relationship. “Any technology, then, both acts on its users and is continually acted on by them.” (Taylor 2001, 38)

Without the hardware itself, and digital or software technologies, many of the amateurs that I interviewed for this project would not have the resources to make, record or distribute their music. Although most of them do play an acoustic instrument, they would be unable to assemble music into a composition and record it were it not for computer technologies. For some, such a reliance on machine technology presents them with opportunities for composition. Many of them learned new musical skills as they learned to use new software. Thus, the act of composition is not only dependent on technology, but becomes a type of technology itself.

Technology has always been seen in Western society as a marker of achievement. Taylor proposes that in the West the tendency is to view technology as a measuring stick against other cultures. He states that: "the most important ways that Europeans judged other cultures was by their scientific and technological advancement...Technology then, forms an important part of the modern West's idea about itself."(Taylor 2001, 8)

This drive for advancements in technology of all kinds has permeated all facets of modern Western life. The pace of this development in the last 150 years has accelerated greatly, and the technological impact on music is no exception. The course of music history has been led precisely by technological advancements: the advent of notation, music publishing and moveable type, not to mention instrument technological advancements such as the electric guitar and amplification or playback technologies like the gramophone. While a

discussion of all major technological advancements in music is beyond the scope of this study, the few instances mentioned above make the point that music is continually being shaped and transformed by technological advancements which most of the time, are not strictly musical technologies. As a result, these technologies shape and re-shape how we understand and listen to music. I wish to position advancements in digital technologies and the immense popularity and usage of the Internet in this long line of musical/technological developments and show how they operate within their social context.

[1.2] Early Electronic Music

Much of the music written by the amateurs I interviewed and by the subculture they are a part of is identified as electronic music. There are many parallels and many differences between early electronic music and the music composed the interviewees. The rest of this chapter outlines the history of this genre.

It should be recognized that electronic-music composition, known as acousmatic music, and computers have been a part of music-making in the West for at least half a century. Though electronic music-making was mostly the domain of modernist composers, it shares some similarities with contemporary popular electronic music-making with computers.

The following brief outline of the background of acousmatic music illustrates differences in approaches, aesthetics and philosophies between modernist and postmodernist electronic music.

After World War II, the West seemed to explode with technological innovations that were mass-produced and affordable, infiltrating middle class homes across North America and Europe. "Free market capitalism, coupled with technological growth, were thought to be able to solve all social and economic ills."(Taylor 2001, 41) Many technologies developed during the war significantly affected music production and consumption, such as the advancements in play back technology. Improvements in magnetic tape for example, had progressed to the extent that the tape was not only used for recording but as a compositional tool.(Taylor 2001, 42) Two main schools grew from these early experimentations with electronic music, namely "Musique Concrète" in France and "Elektronische Musik" in Germany.

While the West has always equated social progress with technical innovation, this became a faster-paced game after World War II. France in particular, wanting to restore its pre-war prominence, equated prestige with scientific advancement. Taylor states: "in France, the process of modernization became linked with the role of science and technology and proponents of this new technology successfully argued that pursuing this path would return France to its former glory."(Taylor 2001, 43)

Following the French approach, composers in the United States adapted their work to modern technologies and acknowledged it from a scientific standpoint, which seemed to gain a special cultural significance. Hence, the rise of the modernist composer: as much scientist and inventor as musician. Pierre Schaeffer¹, for example, had formal training as an engineer rather than as a composer; this was reflected in his work. His lack of conventional music training perhaps worked to his advantage, as he did not feel constrained by techniques of the past. (Taylor 2001, 43)

More significantly, a lack of formal training also altered traditional expectations that the composer needed be a performer. This may be one of the greatest commonalities among modernist composers and the amateur electronic composer of today. In both cases, technology has facilitated the untrained, allowing the creation of music without traditional training. One of the greatest differences between the modernist electronic composer and the popular electronic music composer of today is the situation of the listener; in other words, how much agency the composer is willing to invest in his/her listener. The thought that sound can be perceived and interpreted by listeners was completely against the modernist aesthetic of composers like Pierre Schaeffer. Schaeffer sought to transform sound from its original source so that it was not a source of

¹ Pierre Schaeffer (1910-1995). French Composer of experimental music. In 1948 he created the first works of *Musique Concrète* by manipulating recorded sounds from gramophone records. Together with composer Pierre Henry, he founded the *Groupe de Recherche de Musique Concrète*. (*The Norton/Grove Concise Encyclopedia of Music*, p. 712)

distraction for the listener, who could then concentrate on the form of the piece in order to appreciate the composer's skill (Taylor 2001, 45-46).

Taylor encapsulates the opposite of this Modernist aspiration of aesthetic control with the term "residual significance". He suggests that music can generate sounds that "evoke residual meanings that listeners might associate with the sound's origin, which would mean that the composer is neither creating, nor in total control of, a self-contained aesthetic object." (Taylor 2001, 46) This is an important signification of the modernist aesthetic as it sought to deny cultural significance to the piece or agency to the listener.

Opposing the aesthetic of the French *Musique Concrète*, German composers sought to reconnect with the artists of the past by preserving the idealism of the composer. Taylor points out that because the valorization of technology and science was also present in Germany during this post-war period, composers such as Arnold Schoenberg, as opposed to Igor Stravinsky, regained popularity amongst a new generation of composers. (Taylor 2001, 47) "Much of the installation of Schoenberg and the second Viennese School as the predominant school of composition immediately following the war was due to the publication in 1948 of Theodore Adorno's *Philosophy of Modern Music* in which Schoenberg emerged as the composer of courage and integrity who followed the inevitable historical path of increasing complexity and logic, while Igor Stravinsky was little more than a gifted prestidigitator who wallowed in older forms and sonorities while pretending he was doing something new." (Taylor 2001, 47) In

this way German composers of electronic music positioned their use of technology as a way of legitimizing their music to the classical academics.²

German electronic music at this time was already using synthesized sound, which was the primary difference from the Musique Concrète School which used altered sounds from the environment. In an obvious link to modernist aesthetic, the "Elektronische Musik" musicians attempted to preserve control over the work by devising the most complicated and abstract modes of formal organization ever, " (Taylor 2001, 53) The ties to serialism were so strong that no composition would be taken seriously unless it utilized some serialist technique. (Taylor 2001, 53) What is important here is the power structure; composers wanted to retain agency over the listener by trying to exercise complete control through maintaining a rigorous structure and utilizing sounds that were manufactured and synthesized, therefore not allowing any source-recognition of the sound from the listener's environment.

There were modernist composers whose philosophies did not embrace this type of power structure. For example, the musical values of avant-garde composer John Cage embraced ideas taken from Zen Buddhism. His electronic compositions, such as *Landscape No. 5* featured sample bits of magnetic tape spliced together -- perhaps a precursor of modern day sampling techniques. As opposed to today's popular electronic music, Cage did not want his sound

² The Schoenberg/ Stravinsky polarization had little to do with either of the composers, but more with the opposition set up by Adorno. While the two composers had been estranged since the 1920s, Stravinsky had become an admirer of Webern's music in the 1950s (Simms 1996, 339-340)

samples to be referential to the original sound source. He wanted sound to exist on its own; to be appreciated for its aesthetic beauty. According to Cage: "The composer must give up the desire to control sound, clear his mind of music, and set about discovering means to let sounds be themselves rather than vehicles for man-made theories or expressions of human sentiments." (Morgan 1991, 362).

Contemporary popular music, as opposed to *Musique Concrète* and *Elektronische Musik*, invites the listener into a sonic world where the symbols are recognizable. It is not the intention of the contemporary amateur electronic musician to alienate the listener or to keep him/her in a fixed position as was the goal the modernist aesthetic. Technology is not used as a tool to distance sound from origin. Innovation arises as the composer combines fragments of his/her vision. In other words, the self in the composition is the innovation; it is the technology.

Of all the modernist composers, Pierre Henry³ has had the most influence over popular electronic artists because he sought to create his music for expressive purposes. Up to this point, modernist electronic music prized the complex use of technology; embracing the technology as the primary motive for music-making and disregarding that for centuries music had been written to move the body, mind and spirit of the people. "Henry never wholly subscribed to any empirical approach to making and studying music; rather, he

³ Pierre Henry (born in 1927) is considered a pioneer of *Musique Concrète*. In 1949 he joined Schaeffer's studio for *Musique Concrète*. He worked with many in the artists in the popular music genre. (*The Norton/Grove Concise Encyclopedia of Music*, p. 360)

always maintained that his music communicates." (Taylor 2001, 61)

Communication implies a dialogue between two parties. By allowing the listener to enter the dialogue, Henry concedes that his is not the ultimate control. Henry was also willing to collaborate with pop music artists such as the English Rock Group *Spooky Tooth*, *The Violent Femmes*, and *Michel Colombier*, a film composer.(Taylor 2001, 64) The 1997 album release called *Métamorphose* featured famous European and British DJs with remixes of Henry's pieces.

"Internet websites devoted to the history of techno music frequently pay homage to Schaeffer and Henry. Henry is often portrayed as the more important of the two...because Henry never stopped composing, and because his music is more accessible."(Taylor 2001, 67)

[1.4] Aesthetic Differences between Modernist and Contemporary Popular Electronic Music

Since the early 20th Century, industrial sounds have become part of music-making. According to Kim Cascone: "When artists of the early 20th century turned their senses to the world created by industrial progress, they were forced to focus on the new and changing landscape that was considered background." (Cascone 2002, 13) As noted above, there were many experiments that included industrial sounds; consider the manifestos and experimental concerts of early

20th century futurists Luigi Russolo and Francisco Pratella⁴ or the early electronic music experiments of Varèse, Stockhausen and Cage. According to Stan Link: "the modernist aesthetic implied that sound and noise would now function within the context of a work's isolated and self-constructed referential world." (Link 2001, 42) In other words, the modernist aesthetic would capture and objectify noise. In Baudrillardian⁵ terms, modernist composers wanted to set up a system of objects where the symbols are referential only to each other.

The inclusion of noise within popular music is not so much a process of objectification but rather a process of integration between the conception and sensibilities of the composer and his/her environment. "While modernist noise is performed, applied noise acts as a type of reception as well as simply a type of compositional material... It is an agency as much as a material."(Link 2001, 43) This suggests that in popular music, noise isn't simply a compositional tool but a power grounded in its ability to convey symbolic value.

Though electronic composition with modernist aesthetics still survives today in the form of acousmatic music, the majority of electronic music is created in the popular medium. Cascone ascertains that with popular electronic music, creative output and the means of distribution are

⁴ Part of the Italian *futurist* movement, Pratella and Russolo were composers of early electronic music. Russolo published *The Art of Noises* and is considered the first theorist of electronic music. They are considered the forerunners of *Musique Concrète* (*The Norton/Grove Concise Encyclopedia of Music*, p. 636, 696)

⁵ Jean Baudrillard (1927-2007). French cultural theorist and philosopher who theorized on the *Simulacra*, a system of objects where the original is replaced by a copy, thereby losing the significance of the original. (Sim 1999, 11)

inseparably linked; one relies on the other.(Cascone 2002, 16) Within popular electronic music, production and consumption are inextricably linked. The industrial and the electronic are no longer objectified as the sources for a composition but become the compositional process itself, as well as its means of distribution.

Simon Waters points out that a modernist characteristic of electronic music is the objectification of sound; the use of sound as an object without social and cultural implications. A characteristic of postmodern electronic music is its tendency to hybridize "different musical worlds, different disciplines, different modes of thought and understanding." In other words, postmodernism as a quality is more inclusive in nature. (Waters 2000, 56)

Similarly, globalization is frequently identified as one of the key influences on postmodern society. The Internet exemplifies this by disseminating information that is shared worldwide. Often this results in the creation of virtual communities tied by common interests rather than geographical boundaries. Julian Sefton-Green recognizes that there is an inherent contradiction regarding the Internet's tendencies for both globalization and localization. "As life within the home turns inwards, away from the geographically local, so groups of people are moving towards virtual on-line life, developing and sustaining new forms of community." (Sefton-Green 1998, 8) Thus, the idea of community is being re-defined. Sefton-Green also argues that the notion of the electronic global village is exclusive, since it doesn't take into account the fact that the majority of the

world's population does not have access to this technology. (Sefton-Green 1998, 8)

This project is equally exclusive since middle-class youths from different parts of the developed world were questioned on their experiences in their on-line communities. Peter, a resident of Hamilton, Ontario, Canada, relates his experience of on-line communities breaking geographical boundaries:

I was working on a side project with another fellow from Switzerland. How that came about was that we had both posted our music on a Serbian hip-hop message board, and both of our musical styles were highly similar. We ended up getting in contact through email and he provided me with several instrumentals to work with. I recorded my parts at my house and sent them to him at which point he added his parts and did the final mix-down. The two songs we recorded together went so well and we had very similar ways of thinking, that we decided to create a concept CD consisting of 8 or 9 songs- along the line we decided to form a name for our collaboration to establish it as official. The work is still in progress, and will be a rather abstract take on hip-hop. We now have the power to create a new 'scene' within the sphere of Serbian hip-hop, because, to my knowledge, we are the only ones with Serbian roots to advertise ourselves as being 'abstract hip-hop.' The Internet can offer us easy marketing and promotion both through message boards and through our own websites. Additionally, not only do we have the power to create a new scene, but we

can also promote and sustain developing musical talents from a country where socio-economic conditions are severely lacking for further growth. So, via the Internet I can easily access music from that country and play it for people here [in Canada] and educate them about a new culture as well as exposing them to quality music. (Interview with Peter, July 2002).

Peter's comments exemplify the type of world-wide information sharing that many see as a trade mark of cultural postmodernism. It is important to note that Peter does not necessarily tie his own roots to a geographical space, but to the notion of nationality and ethnic heritage that his online collaboration allows him to express. The Internet facilitates this by allowing the free exchange of information between individuals, supplying the opportunity for people to make connections as did Peter and his friend from Switzerland, and others who identify themselves with their nationality. Without the Internet, this type of exchange would be virtually impossible. It is also interesting that Peter views his use of the Internet as a way to educate others. Peter, therefore, uses the Internet and his computer as a means of consumption, production and dissemination.

[1.5] So what is Postmodernism?

The shift from analogue to digital technology has profoundly influenced the way we think about music, listen to it, and compose it. Waters points

out that the major difference between analogue and digital is the way information is stored and retrieved. While analogue technology offers a continuous signal, digital provides a non-linear mapping, allowing "instant recall" (Waters 2000, 58) and facilitates fragmentation, isolation of sounds as well as limitless options in matching, re-working and transforming.

From a "Technological Voluntarist" point of view, Waters argues the cultural shift from modern to postmodern can be correlated to the shift from "acousmatic culture (broadly concerned with sounds as material and based, in historical practice, on analogue technology) to a sampling culture concerned with context and based on digital technology." (Waters 2000, 56) This connects the shift in aesthetics directly to the type of technology being used.

Garth Alper also writes of the postmodern aesthetic found in contemporary popular computer music. Alper cites 'genre mixing' as one of the key characteristics of postmodern music that explains the current trend toward musical hybridity, which he concedes to be an attempt to reflect the manner in which incongruous ideas and information are broadcast in present day media. This includes the way in which we view television or listen to radio, our senses being crammed with fragments of information, side by side in time and layer upon layer in space. The ability to switch between radically different fragments of information at one's own pace may influence the collaging technique often heard in modern contemporary music. Media sources also make available resources

from all over the world, the influence of which often manifests itself in multi-cultural influences in popular music. (Alper 2000, 2)

One of the aspects that differentiates modernist electronic music from electronic popular music is the way technology is used. The composers mentioned above, such as Varèse, use technology as a source of sound but still produce and convey their compositions in the tradition of Western music. Scores are still produced, even in unconventional ways, and the works are still heard in concert or on a traditional recorded medium such as records or CDs. In addition, these avant-garde composers associate themselves and are associated with art music or modernist ideals that transmit a sense of musical elitism.

According to Waters, contemporary composers of modernist electronic music or acousmatic music tend to have a "protectionist" (Waters 2000, 70) attitude as they try to retain their modernist values and fail to acknowledge contributions made to electronic music by musicians involved with popular culture. Though this may seem to be a harsh statement, Waters can be considered an expert since he is a composer of acousmatic music who admits that the widespread use of computer software has given the amateur access to what used to be a closed, academic and elitist field. The availability of certain technologies has led to a blurring between 'high', specialized and professional art music, and 'low,' unspecialized and amateur music.

Waters ascertains that another postmodern characteristic of electronic

popular music is its emphasis on recontextualization as opposed to innovation.

"New methods of dissemination, CD, video, DAT, TV, the Internet, tend to stress this simultaneous availability of times and cultures while also drawing attention to the principle of recontextualization." (Waters 2000, 79) The function of a sampler is to take something that already exists and isolate it for another use. The sampler, then, is a symbol of postmodern culture because of its function of providing a new context. According to Waters, the sampler "is paradigmatic of the uneasy relationship between tradition and innovation" (Waters 2000, 71) as it collects information already in existence with the intention of exploring its possibilities.

The dissolving relationship between the producer and consumer is a characteristic of postmodern music: former barriers or distinctions begin to break down. Waters states: "Technologies of mass dissemination have begun to blur in function with technologies of conventional instrumentality, the sampler having long replaced other keyboards as the instrument of choice alongside the electric guitar. Sampling can be regarded, then, as representing an important step in the re-empowerment of 'listeners' as composers, both in the sense that new configurations of familiar sounds encourage 'listening again' and in the more profound sense that sampling blurs the distinction between technologies of production and reproduction and therefore between composer and listener." (Waters 2000, 76)

As the sampler breaks down and isolates ideas, the modern DJ serves a similar purpose. David Toop credits the role of the DJ with breaking down the barriers of the traditional Western 'artist'. The DJ "denied the musician as performer, denied the integrity of any individual performance, denied the problems of mixing musical styles or culture, denied the conclusion of a work." (Toop, 1995, 43) Yet with this ultimate control over so many key notions of music-making in the traditional sense, the DJ does not need any academic music training. The role of the DJ is almost like an assembler of ideas, a form of re-contextualizing a fixed idea. The one aspect of the DJ's work that remains traditional is that the work is still performed in a public space for public consumption.

According to Toop, with the advent of the DJ, the fixed idea of the 'song' began to deconstruct. The DJ's method of music making "began to work on the principle of decomposing songs into modular and interchangeable fragments, sliced and re-patched into an order which departed from the rules." (Toop 1995, 43-44) In the hands of the DJ, the song became less fixed in the traditional sense of form, and this took on a more liquid structure. Music became flexible, without the rigid forms of more traditional popular music. Then, with the rise of digital technology and computer hard and software, this system of music making went from the dance floor to the home space.

CHAPTER 2 CONSUMER/PRODUCER

This chapter considers the changing roles of producers and consumers of contemporary amateur electronic music. As discussed in the previous chapter, contemporary electronic music is related to electronic art music, (acousmatic) as well as to popular music. This chapter also investigates the similarities and differences among acousmatic music, popular music and amateur electronic music, and how this relates to producers and consumers.

Much of the difference between art music and popular music has always been ascribed to their assigned functions. All music is made for human consumption, therefore it could be argued that all music has a “functional” aspect. “Whether to encourage productive movements; celebration, relaxation and entertainment; or serious attention and contemplation; challenge and engagement; and critique and reassessment- music has a role that must articulate or support that function.” (Emmerson 2000, 16) It is clear that art music and popular music can be assigned to any one of these functions. Changing the context of a particular piece of music can also give it new meaning.

According to Simon Emmerson, music, before the eighteenth century, was a bodily process made for human function. The eighteenth century and the appearance of concert music re-contextualized pieces by isolating and extracting them from their original context, giving rise to the idea of “art” music, distancing music from the body. There are many examples of music from ballets

like Tchaikovsky's *Swan Lake* or *The Nutcracker* being used as a popular concert pieces, dance suites being performed on stage or the incorporation of dances or folk music into orchestral music.

The advent of the public concert in the 19th century also divided the composer and the audience, placing much authority in the composition and composer. According to Nicholas Cook, the capitalist model of production, distribution and consumption (Cook 2000, 19) produced a hierarchy of value between the composer/composition, performer and listener. "There is, in short, a nexus of interrelated assumptions built into the basic language we use of music: that musicianship is the preserve of appropriately qualified specialists; that innovation (research and design) is central to musical culture; that the key personnel in musical culture are the composers who generate what might be termed the core product; that performers are in essence no more than middlemen... and that listeners are consumers." (Cook 2000, 19)

The further up the hierarchy, the greater is one's value and authority. If we accept Cook's conjecture, Western art music is built on this hierarchy and subsequently, the producers and consumers of this music find themselves placed within the hierarchy as soon as the first note is sounded.

Emmerson also states that the words we use to classify music connote a value system. Using the term 'classical' for example may lend to suggestions of academicism, alienating the listener and thusly suggesting a

form of 'elitism'.(Emmerson 2001, 1) 'Pop' music also brings its own set of connotations. The word 'popular' suggests a music of the people, implying a kind of universality. According to this theory, if the word 'classical' connotes adjectives like 'high' and 'complex', while 'pop' connotes 'low' and 'simple', the categories perpetuate their own value systems, while listeners choose particular musics because the categories are already in place.

The difficulty with Emmerson's argument ascribing classical and pop musics to a value system is that it fails to recognize that each style of music has it's own system within it. The vast majority of "classical" listening takes place outside the world of academia. There is a wide audience of classical music listeners who listen out of pure enjoyment and have no interest in the intellectual side. Likewise in popular music circles, there are those who listen out of pure enjoyment and those who study and intellectualize it, whether it would be in a scholarly setting or not.

In a less inclusive argument, Moore attributes a greater amount of agency to the listener, crediting him/her with the power to choose and change category. Moore says that it is the function placed on the music by the listener, not merely the musical style that separates musics. Modes of listening change according to factors like time, space and mood, let alone the intention of the listener. Like Emmerson, Moore says 'classical' music is endowed with a privileged position and pop music, alternately, is considered 'low art.' According to Moore's theory, pop music studied academically and classical music listened

to in a pop fashion reverses what is traditionally seen as 'high' and 'low.' Moore differs from Emerson in implying that the function endowed by the listener bestows the categorical placement. It is not the category that perpetuates itself.

Alternatively, Derek Scott submits that the differences drawn between 'high' and 'low' art should not be value judgments as such, but are differences in aesthetics, or an incompatibility of aesthetics. In other words, classical music connotes 'high' and 'complex' because the aesthetic of the music presents itself as such. Much can be argued against this as Scott maintains the privileged and unprivileged positions of both categories of music by crediting the proof to be found in the music itself. This disregards any power that the listener might have in determining the function of the music as in Moore's argument, or the power of a self-perpetuating system as in Emerson's case.

Similar to Emerson, Lydia Goehr argues the idea of the 'musical work concept' as follows: "[the] regulative function within a specific crystallization of ideas about the nature, purpose and relationship between composers and scores." (Goehr 2000, 202) In other words, it is the value system in which the classical music world is hermetically sealed. This value system is revealed in the "beliefs, ideals, assumptions, expectations, and actions" (Goehr 2000, 202) of musicians, academics, and audiences who prescribe to this system. As with Emerson, Goehr proposes that the value systems relegated to categories come from self-perpetuating systems or canons within the musical community.

The 'work-concept' is not necessarily confined to the classical world. Goehr maintains that non-classical musicians assimilate this work strategy into their own music-making as a way of legitimizing it. Many pop musicians seek to validate their work by modeling and judging it according to the classical system. Many artists do this by incorporating classical aesthetics into their music, such as Billy Joel's sojourn into classical composition or Michael Bolton's brief stint with opera. During the progressive rock movement of the 1970's, musicians sought to validate their work by the virtuosity of their musicianship, borrowing many classical performance techniques. *VanHalen* featured a classically trained guitarist, Eddie Van Halen, to impress audiences with his virtuosity. This technique was copied by many rock bands of the 1970's and 80's where technical virtuosity was used to elevate their position in the pop genre.

In one sense, the use of computer software by the amateur to compose captures Goehr's idea of the "work concept" insofar as it follows the classical model of producing a score. Another aspect of this is the attempt to emulate and incorporate the sounds of traditional instruments, for example, by using the synthesized sounds to replace a string orchestra.

However, all the amateur composers questioned for this project about their compositional methods use computer software to compose outside of the 'work-concept' sphere. Most assemble music outside of a form, using non-

traditional instrumentation like synthesized sounds and samples. The act of using computer software to compose music, and imitating traditional instrumentation to legitimize composition to an academic world, is irrelevant to these composers. Instead, they legitimize their music within their own peer circles, through the Internet. Focusing on production methods and software may be replacing the need for a traditional score or instrumentation. Each musical genre is dependant on it's community, creating it's own canon. Within each community there is a relationship between the producers and consumers of music.

[2.1] The Amateur: Power to the People

With the advent of the Internet and the availability and low cost of computer music software, anyone, from the amateur with little or no musical education to the professional has access to the same equipment. Sefton-Green observes that the computer and the Internet provide the consumer with power over his/her degree of participation in the consumption and production of music, a domain which was previously held by broadcasting corporations and the music industry.(Sefton-Green 1998, 6) "Until the last decade of the last century, these functions were strictly fixed, demarcated and separately remunerated."
(Emmerson 2001, 18)

Toop states that using the computer to compose electronic music allows

unskilled musicians without an academic or trained background to draw sound from instruments in ways they previously would never have been able to do. (Toop 1995, 133) From this standpoint, electronic composition on the computer is a liberating experience. Dave relates his experience as follows:

Sometimes it does feel like you are cheating using a computer because it helps you achieve so much without having to know much about music theory. I don't concentrate on trying to write a piece of music from start to finish because I find it takes so long that I lose direction and the ability to hear with unbiased ears. I usually start with an idea in my head of how I want a track to sound. I then usually name a folder on my hard drive and start collecting songs and sounds that may have influenced me into this style of track. I may have ten or twenty of these projects going on at once which means I can collect samples, midi, film clips and loops, some of which I will have produced myself. This helps me stay detached from each piece of music until I have enough material to write, record and mix each track in a short period of time. (Interview with Dave, June 3, 2003)

Dave relates that the computer allows him to use effects and techniques that he would never be able to do otherwise. Theoretically, Dave can employ the use of strings in his song without ever having played a string instrument or studied orchestration techniques. Dave's comments also indicate that using the computer enables him to store his ideas and eventually write pieces from

fragments in a non-linear fashion. The computer acts as a kind of storage system of ideas where Dave can pick, choose, manipulate and assemble at random.

Kim Cascone acknowledges that computer software technology has greatly benefited the amateur. More traditional ways of academic learning are abandoned as amateur musicians gain access to the tools they need. "A non-academic composer can search the Internet for tutorials and papers on any given aspect of computer music to obtain a good basic understanding of it." (Cascone 2002, 12) The digital age has brought with it a new kind of learning. Amateur musicians can produce results comparable to trained composers through deciphering software manuals, and searching the Internet news for needed information. (Cascone 2002, 17) Years of academic study can be bypassed with these new technologies narrowing the divide between the products of academic and non-academic composers.

The amateur musician uses the Internet not only as a composition tool, but as a learning device and method of distribution. (Cascone 2002,17) The success of many amateur music products depends on the Internet to provide the free exchange of information. For example, Adam credits the success of one of his current projects, the Goth band *Birthday Massacre*, to the Internet. According to Adam:

I do not doubt for a second that the
Birthday Massacre would not be as

successful if it weren't for the Internet. Right now we have people all over the world promoting the band that we have networked with through our site. I believe the band would still enjoy some success if we didn't have the Internet as an available option for marketing, but it would have been far more work to get where we are today." (Interview with Adam, April 22, 2003)

The Internet has also provided *Birthday Massacre* with opportunities to play live all over North America and parts of Europe. Without the Internet, booking venues in many of these locations would be difficult, to say the least. Club promoters and concert goers alike can have easy access to the band's music, biography, even critiques from previous audience members. There are many internet sites such as *myspace.com* that allow the free sharing of biographies and music among thousands of people all over the world.

Adam also added that there is a general consensus among his circle of like-minded computer musicians on the Internet about 'sharing' software. Since these system set-ups can cost well into the thousands of dollars, it is more affordable to buy pirated software or share it for free. While the legality of such sharing is questionable, it demonstrates the strong sense of community among his musical peers.

At the same time, as this music is acknowledged in its own community, it also shares a broader acceptance within a larger one. With the help of the Internet, amateur musicians can circulate their music worldwide without the

intercession of the recording industry. Many people in cities all over the world who own computers or have access to them can download anything. Virtually unlimited possibilities are opened to the amateur who can disseminate his or her music within an even larger community. Adam recounts his successful and not-so-successful experiences with circulating his music over the Internet:

When I first started using the Internet to promote my music, there was a much smaller community online: There was no such thing as Napster and there were few sites that would host music for you. I found MP3.com through a friend and within a year had made over \$900 USD through their "Pay for Play" program. Of course, as most things, it didn't last, and after MP3.com discontinued this program there was no real incentive to continue promoting myself actively through them (bear in mind that the number of people signing up probably skyrocketed once word got out). (Interview with Adam, April 22, 2003)

Adam's music can still be found on MP3.com under the pseudonym *Synthetic Solution*. There have been over 800 downloads of his music to date. This is an amazing number since *Synthetic Solution* have not performed live or marketed themselves, other than on this website. The Internet is providing remarkable opportunities to amateur musicians; opportunities that were only previously opened to bands signed with a record company, are now widely available.

Adam also recounted the benefits of posting his music on the Internet in regard to receiving critical feedback from his peers. Adam relates his experience of the nature of the online community as follows:

One of the best sites I posted music on, and probably the most beneficial was Garageband.com. The site works like this: bands or musicians post their music online to get reviewed...before they can post songs, however, they have to review songs, so essentially everyone gets reviewed...I received quite a bit of constructive criticism through this means and it has helped me identify my strengths and weaknesses musically. (Interview with Adam, April 22, 2003)

Peter experiences the Internet community as a (kind of) network that he communicates with and uses to share his music with others. He states:

I can network with people in order to promote my material, get feedback on it and form new connections. The easiest way to do this has been through message boards but for more specific negotiations I use ICQ and MSN. Through these programs I've been able to join with other [artists] from Ontario and worldwide. In fact, it has allowed me to work with people from the Netherlands, Germany, Switzerland and Serbia. I have a project with an artist from Switzerland, and we are working on a demo album purely over the Internet. This would be something

extremely difficult to pull off if it wasn't for the Internet. (Interview with Peter, July 16, 2003)

As a consumer of the Internet and related software, Peter's experience shows how dependent the producer of amateur electronic music making is on the act of consumption. Wanting to share with others is the point of posting music on the Internet, however the constant interaction and feedback with a network of others is what drives so many to expend so much time and creative energy.

The above statements by Adam and Peter also displace past roles of power and authority. "In artistic terms, we can begin to shift the focus back from the producers functioning mysteriously beyond the proscenium arch to those on this side -- the ever more active consumer." (Emmerson 2001, 18) Adam and Peter also identify themselves as consumers of the Internet, but as such they have a tremendous amount of power over what, when, and how they listen. As producers, the Internet provides them with opportunities of dissemination that bypass the ordinary institutions and outlets of the popular music industry.

[2.2] The Performance Factor

Though computer software and the Internet facilitate the job of the composer, the concept of the performer is another matter. When asked what instrument they play, few musicians of electronic music reply: "I play the

computer." (Wessel and Wright 2002, 11) David Wessel and Mathew Wright address the interplay of physical gesture, instrument and sound as related to electronic music. The difference between acoustic instruments and the computer is that the single physical gesture or the push of a button applied to non-acoustic instruments may result in "multiple perceived sonic events." (Wessel and Wright 2002, 11) This means that the computer allows for multiple sounds that emanate simultaneously from one source. This differs from acoustic instruments where one gesture can result in only a limited number of sounds. Even on a piano, a single gesture can produce no more than a large chord. This also implies that one of the skill sets acoustic musicians need to have is gestural control, otherwise their sound results would be arbitrary. On the other hand, playing the computer results in a one-to-one mapping from gestures to multiple sound results. (Wessel and Wright 2002, 11) In playing the computer, one does not have to worry about the gestural control of playing an acoustic instrument.

Wessel and Wright suggest that using the computer as an instrument is a liberating experience as the sounds available are less limited than with other traditional instruments. "One obvious feature of computer technology is immense timbral freedom. Although skilled players of acoustic instruments can produce a wide variety of timbres, they are nevertheless constrained by the sound production mechanism. In contrast, computers can produce arbitrary

sampled or synthesized sounds." (Wessel and Wright 2002, 11) The computer can expand sound beyond the limitations of the physical performer. Enough data can be stored on a computer to represent a multitude of sounds simultaneously.

All the people interviewed for this project can play a physical acoustic instrument to some degree. It is interesting that many of them turned to the computer as it allowed them better and faster results. Chris, like other amateurs, bases his computer music on acoustic compositions that he records into his computer. Others, like Adam, have turned away from instruments completely. Adam recounts his experience of playing traditional instruments into the computer as follows:

I do miss writing music with a pencil and paper. Having a classical background has given me an affinity for performance but the thing about the computer is that I can hear what I'm doing without having to have a rehearsal with the musicians. They are all inside my computer...I used to write music with all sorts of synths, samplers, sequencers and drum machines. I was very anti-computer because from a performance standpoint "point and click" is not very exciting for an audience. In many ways I still feel this way, but for my own music, I am not aiming towards live performance anymore but releasing the music. I use all computer-based software now to write and perform, and though all the software is adaptable to hardware such as a midi keyboard, I do not have one. Though if the urge for a "hands on" element becomes too great, the option

is always there. (Interview with Adam,
May 18 and April 22, 2003)

Adam's comments also identify one of the largest criticisms directed toward computer music: that it is not very interesting to watch as a performance. The traditional idea of a performer becomes decentralized in a live situation with computers. The success of computer music rave acts like the *Chemical Brothers* show that performers of computer music embrace a multi-media approach where visual experiences are an integral part of the music being performed. This multimedia experience can be linked to traditional operatic and theatrical productions where the aim is to capture the audience through various sensory avenues. This sense of production is not only limited to the public performance space. The amateur musician still seeks out his/her venues through the visual aspect of the Internet. James, for example, features his music on his own website where it is a part of a visual presentation including pictures of James and written captions with stories about him, providing an overall picture to the listener/viewer as to James' identity. Such websites may be the new type of virtual performance where a multimedia approach is produced and consumed.

[2.3] The Body

Simon Frith's idea of the potential environmental reflection within the assemblage and repetition of musical fragments may be related to the

disembodied sound that is often the result of musical adventures, such as those described above. Because the music is essentially pieced together like stringing a beaded pattern on a necklace, it lacks the evolution of musical ideas in more conventional forms of music composition. Music that is pieced together in this way tells a different kind of story. It communicates a message about our modern western environment, reflecting the way we consume information through various media like television, the Internet, MP3 players, DVD players. All of these media offer an instant recall of information. For example, we can instantly retrieve and discard information on the Internet much faster than reading through a newspaper or book. This method of discerning information cuts down on the time it takes to rewind an audio tape by pressing a button that instantly takes us back to the beginning of a song. Not only is it a question of time, it comments on the way we use or do not use our bodies. Toop ascertains that "the urge to transcend the body is a dominant theme in any conversation about the technological future." (Toop 1995, 51) Though the body is in constant interaction with its environment, the relationship is far from harmonious. Taking the body out of music results in creating a sense of "transcendental timelessness beyond that of the corporeal." (Emmerson 2001, 13) It is difficult to get a sense of the composer and/or the performer when we hear so much of the machine.

According to Jeremy Gilbert and Ewan Pearson: "many discourses around music consider the presence of certain technologies in negative terms; as a marker of the elimination of human agency from the production of music, the

'murder' of music as a living creature".(Gilbert and Pearson 1999, 112) Paul Théberge states "The more or less direct relationship between physical gesture and sound that is characteristic of most traditional musical instruments is completely severed with [these] electronic devices." (Théberge 1997, 199) A certain amount of physicality is absent because of the lack of an acoustic instrument. However, musical objectives are generally achieved through the same processes used with traditional instruments. When composing, Adam uses his inner ear, cultivated through his accumulated sensibilities to compose his ideas.

"Aesthetics of the machine" (Garnett 2001, 21) is a term coined by Guy E. Garnett to describe the presupposed notions between the relationship between humans and machines. Garnett maintains that computer music or computer sounds from software are often associated with "inhuman" sounds, or sounds that a machine or computer can make and a human cannot. This idea also translates into the realm of performance, since a composer using the computer can compose without regard for the physical constraints of performance. A composer would not have to worry about the limitations of the body or rely on performers at all. With the click of a button, s/he has a virtually unlimited number of sounds at her disposal and under her control. The composer can easily convince him/herself that s/he have created a work of music, whether it is performable by a human being or not. (Garnett 2001, 26) If the work does not require human performance, no problem is created, and human variability can be

extracted from the performance situation. A piece written using a computer program is usually heard exactly the way it was conceived, though playback results will vary according to audio equipment and receiving environment.

According to Garnett, the idea of "the work" as a relatively invariable object can be maintained in the process of computer composition. (Garnett 2001, 27) However, a composer must understand the difference between a human performance and the capabilities of a composition as written on a computer. The composer of such music must decide that if a piece were to exist outside the computer and enter the realm of human performance, s/he must make choices that enable a musician to perform and interpret the music. This calls for the composer to have first-hand knowledge of the performance of acoustic instruments, whether from personal experience or the experience of others. Garnett calls for the physical performability of computer music, since a work's ability to evolve through re-interpretation and human variability makes it more valuable from a cultural standpoint. (Garnett 2001, 27) Garnett states:

With technology generally, there is at least a subtle predilection to think that since this is a machine, it ought to behave as a machine, to do what machines do best. But if the human performer is still actively engaged in the production, there will at least be a countervailing tendency to see the work as having meaning or significance. In this sense, it is important that the technology be focused on extending human capability and not simply

extending technology for its own sake."
(Garnett 2001, 31)

I would argue that the listener has the capability of understanding a work from an individual perspective, and this produces the idea of human variability into electronic compositions. In this sense, the act of listening has a performative value. From a similar standpoint, Luke Windsor ascertains that the listener's individual perception cannot be controlled by the composer's intentions. "Just as a composer might attempt to exclude any connections between his or her piece and familiar events whilst a listener might still hear such connections, so also a composer's intentional 'narrative' of familiar sounds might be misapprehended where a listener fails to perceive the correct sound sources." (Windsor 2000, 17) His statement illustrates that since the 'authoritative' artistic intention cannot control audience perception, the power role shifts from producer to consumer.

Michael Berk raises an interesting point about the 'un-human' quality of computer-based electronic music. Berk discusses the differences between traditional analogue and digital recording as found on computer software programs, and observes that besides the cut and paste advantage in editing and the absence of rewinding for playback, digital offers "the liberation of pitch from duration". In the analogue process, pitch manipulation is invariably tied to duration: the higher the pitch, the faster the tempo becomes. Engineers have discovered ways of "time-stretching" in the digital process that allows one to

manipulate pitch without affecting its duration. For example, a composer could take a sample of the human voice and alter the pitch to either extreme high or low registers without slowing down or speeding up. In the analogue system of recording, duration was an obvious marker of the manipulation of music while this absence of a marker in the digital process leaves no trace of human interference. This allows the manipulation of musical fragments to surpass human sound capability- yet another contributing reason as to why this type of music is accused of sounding "disembodied".

Interestingly, Kim Cascone humanizes the mass wave of digital computer technology. With its fast-paced and intimidating developments in software and hardware, new advancements are discovered by accident or by failure or misuse of an intended product. (Cascone 2002, 13). According to Cascone: "Failure' has become a prominent aesthetic in many of the arts in the late 20th century, reminding us that control over technology is an illusion, and revealing digital tools to be only as perfect, precise and efficient as the humans who build [and use] them" (Cascone 2002, 13). The amateur composers interviewed all had some musical background, whether formal or informal, that they were able to draw on their own musical experiences to be able to create. They use the computer as a tool that facilitates the relationship between their original idea and an end product.

I questioned Adam about the lack of physical presence in his music and he completely disagreed. He regards the computer as just another instrument

that gives him more creative freedom because of it's near-limitless options.

Though he admits to being seduced by the aesthetic beauty of these ready-made sounds, he, as noted earlier, still feels in complete control of the compositional method:

I do kinda miss writing music with pencil and paper. Having a classical background has given me an affinity for it...but the thing about the computer is I can hear what I'm doing without having to have a rehearsal with the musicians. They are all inside my computer under my control. (Interview with Adam, May 18, 2003).

[2.4] The Listener/Consumer

According to John Blacking, listening is an integral part of music in the same way that it is an integral part of language. (Blacking 2000, 97) He also identifies it as an active, not a passive, ingredient in the music making process. "The continuity of music depends as much on the demands of critical listeners as on the supply of performers." (Blacking 2000, 97) This statement reinforces the notion that producers and consumers have an equally and mutually dependent relationship, unlike the traditional view, where the role of the listener is subjugated to that of the producer/ music-maker. To support the importance of the position of the listener, Lucy Green argues that styles are identified in music not necessarily because music has been traditionally compartmentalized according to certain values, but also because "we must have some knowledge of

the style of a piece of music in order to experience inherent meanings as distinct from non-musically meaningful sound." (Green 2001)

This statement places a high value on the listener's relationship to the music. Green maintains that it is the listener's previous musical experience (brought about from repeated listening) that brings the newly heard piece into context. By this means, the listener distinguishes between what is musically meaningful and what is not. Although this is a rather inclusive statement, it can be tied to the argument for the importance of the listener's experience when approaching music. For example, Blacking maintains that 'the listener,' regardless of musics, must be equipped with either learned or innate understanding of organized sound.

The role of the listener is important, according to Théberge's theory of "accumulated sensibilities", because a composer creates from subconsciously collected musical knowledge.⁶ The composer has to be an avid listener to gain this knowledge. Computer music, which involves the sampling and manipulating of fragments, is an excellent application of Théberge's theory since composers working in this medium are literally collecting sounds and assembling them according to their musical vision. This theory also places the role of listening in a privileged position. Since the 'listener' and the 'composer' are not far apart, an important step has been taken toward the dissolution of boundaries that have been set for centuries.

⁶ The ideas expressed here by Green, Blacking and Théberge are based on Leonard Meyer's seminal book "Emotion and Meaning in Music" Chicago: University of Chicago Press, 1956.

Waters states that "Boundaries between disciplines and genres are given immense authority by their enshrinement in the institutions that mediate our artistic experience." (Waters 2000, 66) The dissolution of these boundaries invariably dissipates the invested cultural capital. When this is accomplished successfully, the listener/consumer plays a greater role in the power structure because of the modern consumption process.

Waters also discusses this powerful consumption process. The popularity of technologies like the Walkman in the 1980's, the home computer and the internet in the 1990s, and the ipod of the 21st century, have driven down the cost of purchasing to such an extent that these devices have become readily available. This coupled with "instant recall" technologies such as CDs and DVDs, and computer software that can store large pieces of music with relatively little memory (like mp3 players) has created a whole new kind of consumer. Waters argues that not only is the consumer empowered because the act of consumption is increasingly becoming independent, but s/he is becoming antisocial as well. This characteristic is precisely what gives it its power. Individuals have access to a vast amount of information but also have the opportunity to choose how, where and when they consume it. The use of ipods today is wide-spread in urban culture. For many, they have replaced the radio as a source of entertainment. They allow the consumer to store hundreds of songs that can be played at will in any environment, creating an ongoing personal soundtrack of day-to-day activities.

According to Timothy Taylor, "reflexive consumption [is] a kind of consumption made possible by the decline of social forces that once influenced, even determined to a significant extent, a particular consumer's choice." (Taylor 2001, 19) In other words, the consumer has more power than ever before. With the help of the Internet, s/he is able to download a vast variety of music without necessarily purchasing it or being confined to someone else's idea of an "album". A consumer can pick and choose to make his or her own definitive collection. Not only does this make the act of consumption an increasingly individualistic process, it also increases the power of agency in the consumer. Listeners are also not confined to social restrictions of ageism, racism, classism, gender bias etc. Leeza, for example, can listen to types of music not regularly associated with her demographic (middle class, young, white female). Even though the option is there, Leeza still sticks to what she knows, and the new things she is introduced to are still related to the bands she likes:

Most of the non-mainstream stuff that I download I found about from the *Radiohead* message board. Everyone posts links to their own music or suggests some band that they like that I've never heard of. A lot of the time, when people let me hear their own original stuff it's often better than the music I hear on the radio...Plus there's lots of older bands that I'm just now hearing for the first time like the *Smiths*, the *Pixies* and *Velvet Underground*; bands that influenced many musicians

that are making music today. (Interview with Leeza, July 6, 2003)

As music consumption is growing increasingly independent, the power is in the individual who is provided with choice unfettered by social codes. The Internet grants this access. The act of musical consumption is becoming less of a community function in the physical sense, although strong virtual communities are created instead. A consumer can find his/her own like-minded community on the Internet.

[2.5] The Internet and the Industry

The mass use of the Internet has many in the recording industry worried as the balance of power is shifting to the consumer. File-sharing Internet sites like *Napster* in the late 1990s and *Kaza* at this time, offer free sharing of MP3 files where the home listener can download any kind of music, be it mainstream or hard-to-find items. Steve Jones lists the issues that the music industry may be concerned with in regard to the Internet: retail perspectives and venues, copyright, promotion, loss of sales, competitiveness, presentation, licensing, enforcement, Internet broadcasting, home delivery of music, personalization, recording and storage, customization. (Jones 2002, 223-225) Any combination of these removes the 'industry' from the music business. From this perspective, the music industry quickly becomes less about music and more about business.

As Reebee Garofalo aptly states: "Through its past practices, the music industry has not only created the condition under which consumers will circumvent the record companies to get their music [sic]. They have made people feel righteous for doing so." (Garofalo 2001, 95) The producers and consumers of popular electronic music and Internet users are aware of the changing industry. Record companies have tried to sue Internet sites such as Napster for violating copyright agreements. Legal actions have not deterred people from using these sites, or creating new sites. While searching the Internet for chat groups on the topic of record companies, I came across a website, www.speakout.com which allows people to air out their opinions on various topics. On the subject of down loading music and the record companies, Jenny Murphy observes:

The record industry failed to recognize the significance of file sharing technology until it was too late, and now they will not be able to make up for lost time. Countless alternatives to Napster are available on the Internet, and they will be much harder to control than Napster, which is a centralized company with servers that can be shut down. Software like Gnutella links individual computers to one another, so users can swap files without passing through a central server. There will be no market for the record companies' proposed digital download services, because music fans will still be able to get their music for free.

It was the greed of the record companies that drove fans to Napster in the first place, since many were tired of paying wildly inflated prices for CDs.

Until these companies lower the prices of CDs, or make their downloadable music more reasonably priced, few music fans are going to use their sites. Why should they, when they can get the same product for free? (Jenny Murphy, **Will Record Companies Be Able to Profit From the Napster Phenomenon?** July 2000, www.speakout.com)

After the failure of legal actions against file sharing sites, some record companies set their sights on filing legal suits against the single members of the public for what they believe to be an over-consumption of illegally downloaded music. An article on a CBC news website, www.cbc.ca, reported on some of these lawsuits:

The companies, co-ordinated by the Recording Industry Association of America, have sued more than 18,000 people, including many minors, accusing them of pirating music through file-sharing computer networks, most of which have been forced out of business. Typically, the industry tracked downloads to a computer address and learned the name of the computer owner from the internet service provider. (**Music Industry Backs off in Piracy Suite Against NY MOM** www.cbc.ca, December 20, 2006).

In this particular case, the Recording Industry Association of America (RIAA) co-ordinated the efforts of five record companies in filing a law suit against a mother and her teenage children in New York City for illegally

downloading and distributing over 100 songs. Patti Santangelo, the 42 year old mom, had testified that she did not know anything about downloading music, or that her children were using the family computer to do so. Though the RIAA was not successful in their battle against Mrs. Santangelo, they are still pursuing lawsuits against her children.

Making examples out of Internet users is a legal tactic that does not serve to scare the general public away from downloading and distributing music illegally. A more constructive approach is offered by Cameron who astutely observes:

I believe any sort of decline [in record sales] would be inevitable, since such an aggressive and complicated system which markets such a simple product would have to draw a fault somewhere...on many levels, it is an unfair system...My music collection would be nowhere near the size it is if it weren't for the Internet. The music industry is an industry that needs to evolve and change with the direction music is heading, instead of fighting against it. The digital age is opening a lot of doors for people who otherwise don't listen to certain types of music, nor have an interest in making it themselves. So if things progress in a positive direction, this could be an incredibly constructive thing. (Interview with Cameron July 11, 2003)

Jacques Attali observes that a similar scare in the music industry happened in the 1920s when radio first began to broadcast recordings. The music publishers saw the market shrinking, performing artists saw their performance jobs disappear, and record manufacturers saw their sales dropping. (Attali 1985, 213)⁷ The industry accommodated itself to the new reality and discovered means by which to prosper within it. As Cameron wisely prophesized, the industry will adapt to the Internet and MP3s just as readily. There are many examples of record companies who are slowly making the switch. Sony Music Entertainment, Universal Music Group and EMI Recorded Music have all begun subscription programs that enable consumers to download single music tracks for a nominal fee.

The following comment by Leeza demonstrates that the internet can facilitate the sale of CDs through word-of-mouth introductions from members of her Internet community:

If someone would tell me to go out and just buy a *Pixies* CD, I wouldn't if I hadn't heard any of their songs (and you don't hear any of this stuff on the radio), but I will go and download it, and if I like the songs, I will go out and buy the album. If I don't like the music, I won't waste the money. (Interview with Leeza, July 6, 2003)

⁷ Even though the industry adapted to this situation and turned these new factors to its advantage, the performers were the ones who took the greatest hit, and still continue to do so. "In Toronto today, the number of musicians making a living playing shows is a fraction of what it was 20 years ago, as shows use more and more computer generated music." (Interview with Keith Kinder, September 2007).

The ability to download one song gives Leeza the power to decide whether or not to purchase the CD. Her comments beg the question 'but why bother to buy CDs at all?' If the option is there to download a complete CD collection from the Internet for little to no cost, what explains the need to own music? Cameron offered considerable insight into this conundrum:

"A main factor is that CDs are something physical, something solid. Physically, MP3s don't exist. One reason this is important is that I've never known anyone who has lost his or her entire CD collection after a hard drive crash, or reformatting due to a virus. Plus, MP3s don't have much character to them, in the way that vinyl has for example.

Another reason is that with a CD, you can make MP3s. When you burn a CD of MP3s you have downloaded, you're limited to the quality of the bit-rate at which you have downloaded the MP3s. I know many people who have a problem with listening to MP3s under 192kpbs, it's at a greatly compressed level to that of the music on CDs. A track on a CD may be 60MB, but an MP3 of the same track may be only 3MB.

One difference that is important to me is packaging. When I was young, I used to be very drawn to CDs with nice artwork and cases, and I always loved seeing pictures actually printed onto the CD itself. As any marketing person can

tell you, appearances are very important. I can think of a hundred albums where the artwork is imprinted on people's memories: just look at an album like *Abbey Road* by the Beatles.

Another thing that is important to me is lyrics, which are often printed in the liner notes of CDs. Many people like to sit with the booklet when they buy a new CD, and read it as they listen to the music for the first time." (Interview with Cameron, July 15, 2003)

Cameron's statement raises some very important points. He places much value in the album as a cultural object as packaging plays a distinguishing role in his relationship to it. He emphasizes artwork and presentation of lyrics as an important part of the package. The music may play the most important role in a CD purchase but it is not the only factor. Besides this, Cameron identifies the value of having music as a physical object (in a CD) as opposed to listening to it through an MP3 format, a much more disembodied experience.

Frith suggests that music is tied to how we identify ourselves as individuals within a collective of others and that we seek to express ourselves through other people's music. (Frith 1988, 229) Having a visual aid along with the music is important in that it adds to the appeal of the artists with whom listeners identify. This could explain why album sales have not become extinct with the advent of Internet downloading and why people still go to concerts. Listeners want to establish a connection with these artists that goes beyond the intangibility of the listening process. The visual is a more concrete way of processing information.

The relationship between the producers and consumers does not need to be so strictly divided. Taylor proposes that agency is never quite solely in the hands of the consumer or the producer; that, at different times and places, the balance will shift from one to the other. "Sometimes consumers in some places and times are duped; sometimes industries in some places and times are duped; sometimes some industries in some places and times fail to fool their customers. Practices of marketing and consumption, from being either top-down or bottom-up, are instead more like...the double movement and containment and resistance that never ends". (Taylor 2001, 25)

This discussion between users of the Internet and the Music Industry has yet to acknowledge the role of another important player: the recording artist. Many musicians have vented their frustrations about being caught in the middle between their obligations to their recording contracts and pleasing their fans. In an interview with Neala Johnson, Trent Reznor, from the electronic band *Nine Inch Nails* had this to say:

It's a very odd time to be a musician on a major label, because there's so much resentment towards the record industry that it's hard to position yourself in a place with the fans where you don't look [greedy]. At the same time, when our record came out I was disappointed at the number of people that actually bought it. If this had been 10 years ago I would think "Well, not that many people are into it. I could point fingers but the blame would be with me". But on this record, I know people have it and I know

it's on everybody's iPods, but the climate is such that people don't buy it because it's easier to steal it. I understand that, I steal music too, I'm not gonna say I don't. But it's tough not to resent people for doing it when you're the guy making the music, that would like to reap a benefit from that. On the other hand, you got record labels that are doing everything they can to piss people off and rip them off. (Interview with Trent Reznor, Herald Sun, May 2007).

Even more recently, the mainstream band *Radiohead* decided to release their latest album *In Rainbows* through the Internet. Fans are invited to pay what they feel to be a fair price (plus .45 cents for credit card processing). A link is then sent to the customer's email address where s/he can download the album. This way, the band makes 100% profit and the fans do not feel short changed by the record company. The band is also offering the sale of a *disc box* which offers a CD, 2 12 inch heavy weight vinyl discs, plus a second enhanced CD that offers more new songs, art work and lyric booklets. This package is sent to the customer for £40.00 and it comes in a collectors edition hard cover book. From the recording to the sales and distribution, this album is the first of its kind to completely eliminate the record company. The media got a hold of this information and broadcast the news over the Internet and radio stations. The band even managed free advertising. Following the success of *In Rainbows* will be interesting. This could be a one time event or the beginning of a revolution in production and consumption of music.

[2.6] A Short Note On Recording

Computer software and the internet have also facilitated the recording process for the amateur musician. With an abundance of software on the market, amateurs have a veritable recording studio at their fingertips. With the right hardware and software, the quality of these programs is just as good as the professional recording studio with complete control in the hands of the artist at a fraction of the cost. Dave's list of hardware and software is impressive as it totals to well over 25 items. His hardware includes samplers, mixers, keyboards, and computer attachments like zip drives, sound cards and different monitors. He lists software like Cubase, Cakewalk, and Reason, which are also used by Chris. It is an interesting point that these composers live in different geographical regions (Dave is from England, Chris lives in Toronto, and James and Cameron are from Australia) which does not seem to hinder the availability or compatibility of equipment. Adam recounts his recording experience as follows:

In the past, I have worked with bands that were very far from the computer age. Recording was very time-consuming, expensive and messy. Recording with a computer is like a dream. It is so much more versatile and I am able to get everything sounding exactly how I want it as

opposed to close enough. The amount of space and money I need to work is also more attractive (a \$300 sound card and \$400 software is far better than \$10-15,000 on hardware [for a traditional recording studio]. (Interview with Adam, May 18, 2003)

Adam confirms that using the computer to record music is cheaper and easier than using the traditional recording studio. Though it is quite common for people to have basic recording equipment at home, most amateur bands like Adam's have to rent time in a professional studio, which can be quite costly. Though seen as a positive feature by Adam, one of the drawbacks of using the computer to record is that involvement of other professionals like engineers is excluded:

There is a certain level of being a hermit that has come out of this change: I sit at home writing music instead of meeting and networking with other musicians. I miss the social aspect to a certain degree though it almost seems necessary sometimes. (Interview with Adam, May 18, 2003)

The act of making music and its subsequent production is done in isolation, lacking of any feedback or constructive criticism as the roles of music producer, engineer, and mixer are filled by the composer him/herself. It can be argued that some of the most successful projects in popular music of the last century have come from the collaboration between artist and producer. The pairing of the band *U2* with Canadian producer Daniel Lanois is a specific

example of how an outside pair of ears can add a fresh twist on an otherwise tired sound. Lanois can be credited with the sound that brought *U2* to fame and fortune with the album *The Joshua Tree*. The recording process for a composer/songwriter who works alone with a computer can become a solitary and self-limiting experience.

CHAPTER THREE- THE FRAGMENT

This chapter discusses the styles of music made by the amateurs interviewed for this project. This is important because the style, content and method of assembling this music also mirrors the social significance discussed in previous chapters. Much of this chapter deals with theories of fragmentation and sampling techniques used in this approach to music-making. A discussion of musical samples from some of the amateurs will also be included.

One of the principal differences between traditional Western art music and popular electronic music is the method by which music is composed and disseminated. One of these major differences is the use of notation in art music, not only to document and distribute a composition, but to validate it by making it permanent. Chris Cutler states that in the art realm, "writing became essential, and not only for transmission. A score was an individual's signature on a work. It also made unequivocal the author's claim to the legal ownership of a sound blueprint." (Cutler 2000, 91)

In Cutler's opinion, Western music has been preoccupied with validating musical practices by writing them down. Examples of this even permeate popular musics like jazz and rock music, which formulate their own systems of notation. Though popular musics are less centralized on notation, books touting jazz standards and guitar tablature magazines are an important part of the consumption of these musics.

In the case of popular electronic music, listening takes precedence over notation in the compositional process. While listening is an important part of all music-making, in popular electronic music it functions slightly differently. Listening, in this case, is not simply a process that results in a composition, but can literally make up a work. Because of their method of composition, songwriters of electronic music assemble music in parts, using already existing fragments in a layering process, and relying on their own sense of musical intuition to shape the direction of a piece. While this does not seem significantly different from the process of composition for song writers of all types of music, the finished electronic piece sounds more like a sound collage. Layered fragments that originally belonged to other sources come to exist in a new context. The question of originality becomes central to the argument, as the songwriter is completely reliant on his or her vision to assemble a composition. Because the piece of music can hypothetically be made up of parts that already exist as compositions, it is how the composer of popular electronic music manipulates, reshapes and fits together these fragments that make it original.

Regarding originality, a parallel can be drawn between electronic popular music and visual art in the 20th century. In art, the incorporation of visual fragments into the 'work of art' from outside sources created an artistic and subsequently cultural phenomenon that observed and commented on the culture surrounding it. "In the visual arts, Duchamp with ready-mades, Warhol with soup cans and Brillo boxes, Lichtenstien with cartoons and Sherry Levine with re-

photographed 'famous' photographs are only some of the many who have, in one way or another, broached the primary question of originality." (Cutler 2000, 108) These works of postmodern art placed the everyday object in a privileged position: the object of an artistic vision. In this way, visual art can serve as a foundation for understanding the inclusion of fragments in musical composition. With this in mind, the incorporation of sound fragments from one's surrounding environment is a commentary on one's immediate culture.

However, defining what a sound fragment is, or primarily, how it can be used is a different process. According to Cutler, the definition of sound includes "other people's recorded work; and that when all sound is just raw material then recorded sound is always raw- even when it is cooked⁸." (Cutler 2000, 88) Cutler's definition works on the premise that all sound, when taken out of context and fragmented, becomes equal in value. Cutler continues to argue that "as a pirated artifact, a found object, as debris from the sonic environment, a plundered sound also holds out an invitation to be used because of its cause and because of all the associations and cultural apparatus that surround it." (Cutler 2000, 99) Sampling, then, becomes one of the primary tools in utilizing sound fragments in composition.

In applying Cutler's theory of John Oswald's 'Plunderphonics'⁹ to sampling

⁸ Reworked or changed.

⁹ Plunderphonics refers to the altering of pre-recorded music into a new composition. The sounds are combined to form a sound collage. The term was developed by John Oswald in his essay *Plunderphonics or Audio Piracy as a Compositional Prerogative*. (<http://en.wikipedia.org/wiki/Plunderphonics>)

culture, this practice challenges fundamental pillars that support traditional Western art music. As discussed above, the first pillar, originality, is brought into question when pieces composed whole or in part utilized fragments of already recorded pieces or generally used sound fragments from software packages. The notion of individuality is also called into question as the composer speaks through the voices of others, manipulating and morphing them through his/her musical vision.

Cutler's second pillar focuses on listening as an integral part of composition. As the act of sampling slowly dismantles some of the values of traditional Western art music, it places new value on listening as a primary focus in both the production and consumption of music. The very act of sampling and choosing samples from a virtually unlimited number of sound sources relies completely on the composer's listening strategies to assemble particular fragments together for a final product. This replaces theoretical structures used in classical or popular methods of writing. When Dave writes of his own method of composition, his approach is typical of that of the other amateurs interviewed for this project:

I usually start with an idea in my head of how I want a track to sound. I then usually name a folder on my hard drive and start collecting songs and sounds that may have influenced me into this style of track. I may have ten or twenty of these projects going at once which means I can collect samples,

midi, film clips and loops, some of which I have produced myself. This helps me stay detached from each piece of music until I have enough material to write, record and mix each track in a short period of time. (Interview with Dave, June 25, 2003)

Dave's comments illustrate how integral listening is to the compositional process. In Dave's case, as with the other interviewees, there is a great emphasis on the gathering of fragments or the consumption of music. The composition becomes about what direction the composer decides to take after he or she has a collection of fragments. Consumption is central to this type of music, but vision is what creates a piece.

[3.1] Music and the Environment

The fragments used in electronic music are a reflection of one's environment. Many composers of electronic music use samples that include fragments of ordinary sounds gathered from their everyday sonic experience. Even sounds taken from prepackaged software tend to reflect the industrial and the machine.

From a more abstract perspective, Simon Frith posits that fragmented music is a reflection of our modern environment. He states that such "fragmentary listening [or assembling in this case] may have as much to do with industrialization and urbanization as with the recording technology as such."

(Frith 1996, 242) As consumers, we are constantly being assailed with information disseminated to us in a fast-paced way and because of this, information can be easily fragmented. In other words, the process of consumption is fragmented because of the way information is presented.

Chris contrasted his type of compositional process in relation to more traditional methods as being about "building a sound scape." Many of the sounds he uses are ordinary everyday sounds collected from his experience living in downtown Toronto such as the inclusion of sounds from the city streets, subway cars, busy restaurants, and traffic. These types of fragments infuse his music with an urban feel. The possibilities of conveying the atmosphere of any environment are endless, though Chris gravitates to the sounds which best reflect who he is as well as, where he is. The following statement from him also illustrates the functional application of the samples. Instead of simply adding in everyday sounds for aesthetic purposes, Chris uses them as instruments. Chris explains:

I sampled the typewriter and I am putting together a somewhat artsy composition, the lyrics will match the key strokes throughout the song. I sample thunder, rain, texture building sound-scape stuff like that. I have bad drum sample sounds so I used a cough as a rhythm instead. I also like clanging bottles and anything else I have around. Plastic bags make a good brush on a snare effect. (Interview with Chris, June 4, 2003)

By replacing traditional instrumentation with untraditional objects, Chris is integrating his ordinary sonic experiences with his musical composition.

Reflecting on the qualities of our modern society, Frith ascertains that "because all our experiences of time are now fragmented and multi-linear, fragmented music is also realistic music...it represents experience in grasped moments."

(Frith 1996, 243)

A clear example of the connection between one's environment and music can be found in the category of ambient electronic music, a type of electronic music with the intention of "bottling moods and atmospheres." (Toop 1995, 21) Brian Eno, in releasing his album *Music for Airports* states:

An ambience is defined as an atmosphere, or surrounding influence: a tint. My Intention is to produce original pieces ostensibly (but not exclusively) for particular times and situations with a view to build up a small but versatile catalogue of environmental music suited to a wide variety of moods and atmospheres. (Toop 1995, 5).

Eno is attempting to provide a tangible quality to an otherwise ethereal music. This effort attempts to ground music, making it physical, not necessarily through the body, but also through the space where it is performed and listened to. As Toop suggests, this goes against the ideas pervasive in Western music that music is a production and consumption based on the manipulation of emotion, offering a release from the everyday. Ambient

electronic music is a combination of looped sound fragments in the tradition of minimalist composers such as Terry Riley and Steve Reich. As Toop states: "increasing numbers of musicians are creating works which grasp at the transparency of water... [the music] avoids form and function in favor of impression... [it is] music that searches for new relationships between maker and listener, maker and machine, sound and context." (Toop 1995, 21-22) As this music aims to create or recreate an environment, it becomes more about *how* one listens rather than *what* one listens to.

Alternately, Windsor argues that "one cannot forget that a listener... is already inhabiting an environment within which an impoverished 'virtual' environment is presented." (Windsor 2000, 17) Windsor reminds us that the 're' construction of a particular environment through the sampling of everyday sounds is still a construction. As the experience is an auditory and sometimes visual one, it still does not allow a complete sensory adaptation. Therefore, its realization can only be partial. A listener's gathered auditory experience (his/her musical baggage) might allow him/her to create a temporary experience that differs from the space s/he currently inhabits. The experience is nothing but a simulation. For example, as Chris uses sounds found in his environment, he is in essence recreating his environment for the listener.

[3.2] Sound Theory of Sampling

The sampler has become a significant symbol of our postmodern digital age. It functions as a tool of time manipulation, repetition, recontextualization and/or appropriation, fragmentation, and transformation of genres and cultures (Waters/Emmerson 2000, 64) at a relatively low cost in the hands of anyone, from amateur to professional. Understanding our relationship to sound becomes the key to understanding this new mode of listening. The following discussion of sound theory is intended to shed some light on an abstract idea.

According to Ambrose Field: "Source-cause theory assumes that we seek to relate a sound that we hear to the physical cause that brings that sound into being." (Field/Emmerson 2001, 38) It is Field's contention that contemporary society has a general understanding of many sound signals and their signification. "For example, a siren sound signals danger. As interpreters of these codes, we no longer need to evaluate the specific cause of the sounds- we simply need to take action." (Field/Emmerson 2001, 39)

Field also argues that Western society has been conditioned to trust certain information that is provided without also having the need to question the source and validity of that information. In other words, when we hear the siren sound, we are conditioned to think *danger* though we don't necessarily question the source of that signal sound. So, while the "source-cause" of the given sound is becoming less relevant, a plethora of new source contexts for any particular

sound are now available. "By changing the context in which sounds exist, new realities, virtual worlds and hyper-spaces can all be produced." (Field/Emmerson 2001, 39).

It is important to understand the role of the signifier (the object) in relation to the signified (the message) as a composer should be aware of the implications of the sounds s/he employs. (Field/Emmerson 2001, 41-2) Though it may be argued that a composer's artistic intention may be perceived in a multiplicity of ways depending on the individual listener's experiences, on a basic level sounds from our everyday environment can still allow for a general audience response.

Field continues to argue that when these sounds are manipulated within an electronic composition, the sounds cease to signify the real, or original source, because they are extracted from their original context. The sounds cease to become the subject in their original context and are consequently objectified as they are placed in a new context, or, more accurately, placed out-of-context. An example of this can be found in Chris's typewriter composition. He samples the sound of a typewriter to echo the song's lyric content (about writing a letter). However, the typewriter sample is looped in such a way that it stops resembling the real sound of a typewriter (with variable pauses and lengths of typing) and becomes an object for keeping the rhythm, like a drum.

It is mainly through sampling that sound is fragmented. Toop asserts that by using samples from one's everyday surroundings, the act of sampling integrates one's music environment and cultural influences with the composition.

"Sampling is the most extreme contemporary example of a music which absorbs into itself the music which surrounds it." (Toop 1995, 61) This is a central part of the composition as it reflects the environment of the author.

Stan Links suggests that the inclusion of noise fragments within popular music identifies the music as object and also locates it within an environment. "Beneath its overt nostalgia, the inclusion of [noise] is the reconstruction of a particular listening environment in contradiction to the reconstruction of a recording environment, event or musical object." (Link 2001, 37) In other words, the inclusion of everyday sounds within a recording recalls the origin of these particular sounds in the mind of the listener.

Alternately, in the hands of the sampler (both machine and machine operator), the fragmentation and repetition of musics results in the unraveling of musical and cultural symbolic meaning and the cultural capital thusly endowed. Emerson states that "regularly repeated sound loses its source/cause recognition and becomes "sound for its own sake." Even words repeated lose their meanings. Our listening focus changes, and we become drawn inward, immersed and perhaps even mesmerized." (Emmerson 2000,14). Through repetition, sound can exist outside its context, or establish new contexts.

With the act of sampling, the inclusion of fragments can do two things. As discussed, fragments can bring with them their extra-musical associations or former contexts informing the listener of symbolic meaning. On the other hand, the repetition of these fragments can also result in the opposite effect: the

fragments can cease to exist within their old context and survive on their own, creating a completely unrelated framework.

Electronic music written with samples from computer software packages raises other questions. While music producers can choose sound from a multitude of samples, people all over the world who have access to the same programs can use the same samples, making music production using these sources somewhat universal. Another contributing factor to the idea of generic or universal music is that the songwriter has access to non-western musics and can sample and mix sources from different cultures and geographic regions. Because of aspects of appropriation and re-contextualization, this process displaces the meaning or inherent value of the symbol. As Simon Frith says, because these sounds are so easily isolated and fragmented, they lose their "expressive weight" and that "all sounds carry an equal value of signs" (Frith 1996, 244). An example would be a songwriter who mixes together fragments of Gregorian chant with the Australian *diggerie doo*. These musics in their original contexts have dramatically different social functions and are given different symbolic value. Within the context of the song, they become absolutely equal.

The above discussion illustrates how sound fragments begin to signify aesthetics over function as the original use of the music. Where the fragment originated from becomes secondary, if not altogether unimportant, to its quality as a sound. The symbolic meaning and religious content of Gregorian chant, for example, can become secondary to why a composer might choose to use it.

While a fragment of chant may be used to connote religious ideas, it can also be used for its timbral qualities, or for its contrast to other fragments being used simultaneously. As Taylor states, electronic musicians "can digitally manipulate the music they sample...but their manipulations don't necessarily have anything to do with their discourse and their messages about music." (Taylor 2001, 153) Alternately, Théberge argues that choosing fragments purely for aesthetic purposes, while denying their literal signification, still implies that the composer is representing his or her musical experiences in some way. (Théberge 1997)

In popular music, noise can transcend context and become function. This is a frequent occurrence in electronic music: the newly re-contextualized fragment takes on an extra musical function. Chris has used a typewriter, coughs, the radio, glasses from the kitchen, thunder, rain, bottles, and plastic bags, sometimes because his ready-made percussion sounds are uninteresting, but more likely because he is searching for sounds outside of the ready-mades he finds on his software. (Interview with Chris, June 19 and 4, 2003)

The act of sampling falls into two categories. Some composers sample sound in a way that does not refer to any other context. Their material is manipulated and altered to such an extent that even if the composer started with a sample from a familiar source, its final state would be unrecognizable. In this category, the inclusion of environmental noise within a recording lends to the authenticity of the message and messenger, such as the inclusion of sirens in a

rap song about police brutality. The inclusion of such noises "compels us to experience the reproduction rather than the original, the document rather than the event." (Link 2001, 39)

The second method of sampling involves the composer using material from a familiar source, often "exploiting iconic cultural significance." (Toop 1995, 262). This category of sampling offers a different set of problems as it often borrows from recognizable sources and "outrages those who believe in the sanctity of authorship and ownership." (Toop 1995, 263) As this type of sampling is pervasive in all sorts of popular music, most music makers do not hesitate to include obvious or subtle musical quotations from others. As Toop suggests, this kind of sampling becomes more about the sound removed rather than the actual music. In one sense, it is a move to objectify through fragmentation. An example of this is Chris' inclusion of a fragment from Purcell's *Dido and Aeneas* in his version by of Tom Wait's *Tango 'Till They're Sore*.

When questioned about why he chose those particular pieces of music to mix together, Chris said that he just liked they way they contrasted with each other. He had heard a recording of the Purcell opera years before and always wanted to use a particular section of it. However, in Chris's piece the Purcell fragment is manipulated so that one could hardly know it is there -It is used as more of texture-building device set against the Tom Waits cover. In this case, the Purcell fragment is taken from its original context, isolated and reshaped, and therefore loses its original meaning.

All of the people interviewed for this project use sampling to some extent, though their techniques are different from each other. Chris likes to record his own samples from his daily life and also to use other people's material. Dave has a rather eclectic way of gathering his information, naming folders for bits he comes across that he finds interesting, then filing them away for future reference. Peter uses his samples in R n' B songs which puts them into a political context due to the subject matter of his lyrics. Adam, on the other hand, does not sample directly but uses synthesized sounds that are sample-based.

Perhaps the use of samples has become so widespread because of the availability of information. With sources like the Internet, pieces of information can be easily found, collected, and consumed. The availability of software for gathering this information can be obtained at little or no cost. Even though sampling is pervasive in popular music-making, the methods of sampling and end products that result from it are as different and individual as the people who produce them.

[3.3] The Fragmented Listener

Cutler points out that using music that listeners have already heard recalls their memory of it. He applies this idea to the use of sampling in computer music where the composer gathers information and reassembles it. Depending on how transformed the information is, it might recall in the listener

some of the original symbolic meaning. Taylor also comments on the memory or recall function that sampling has on the listener as follows: "One of the reasons that sampling itself has become a kind of art form is that it provides aural glimpses of the social, metonymized into fragments of acoustic musicking, but in their new contexts of electronically generated music, these glimpses are historical." (Taylor 2001, 140) The composer of samples becomes a historical chronicler of his or her experience, both as an individual and as an individual in society, a context to his/her experience. This differs from other styles of composition because electronic music samples convey literal sound information about culture. The listener, then, is a consumer of this experience, perhaps as it reflects his/her own.

When noise fragments are included, Stan Link suggests that the listener is able to situate him/herself within the music in three ways; either in the first person, as one assumes a role within the given musical situation, or from a third person perspective, as an observer in a fictional space, or in the role of the voyeur, "experiencing their own absence from that scene." (Link 2001, 38)

The computer has made the process of consumption an experience tailored to the individual listener. A listener has the option to listen to what, how and when s/he wants. This can be an incredibly affirming experience as the Internet provides choice that might have otherwise been unavailable. A listener can hypothetically listen to music from around the world, in a variety of styles that s/he might not have otherwise been exposed to.

[3.4] Subculture Culture

In popular music culture, there seems to be a general acceptance of the type of composition made by the amateurs interviewed for this project, from both the listener and producer standpoints. The musical style discussed above has permeated all types of popular music, as well as all kinds of music making, both amateur and professional.

Allan Moore discusses this acceptance by relating it to the value of authentication placed on the music. "While the question of why particular (groups of) listeners give value to some musical experiences above others may depend on what music connotes or denotes, it also depends on how the musical experience is constructed around a basic distinction which may be summarized as mainstream/margin, center/periphery, or co-opted/underground." (Moore 2002, 218) As amateur computer music is disseminated over the Internet through communities of listeners, Moore's standpoint is that often a music's authentication is brought about by its relation to underground or marginal aspects. This eventually leads to its acceptance in a more mainstream venue. When the acceptance of this musical process becomes common, if not ordinary, the production and consumption of these technologies in essence, become a subculture.

According to Peter Shapiro, "The excitement generated by pop music has

often been the thrill of exploitation and the sense of possibility provided by technology's shock of the new." (Shapiro 2000, 2) Following anything new in pop music, there seems to be a wave of criticism against it as well as its wide-spread usage: in this case, the usage of computer programs to assemble, manipulate, and inter-weave musical fragments. As discussed above, many arguments have been made by traditionally trained musicians challenging the validity of the music if it is assembled by untrained musicians. After all, is the music made by the artist or the machine? Eventually this technology has seeped into more mainstream musics. We can hear the addition of electronic music in almost all forms of popular music.

According to Thornton, "The ultimate end of a technology's enculturation is authentication. In other words, a musical form is authentic when it is rendered essential to subculture or integral to community." (Thornton 1996, 29)

[3.5] Authenticity

The question still remains: Who is the author of the music? In such a subculture as popular electronic music, can the music assembler be credited as the author? Thornton states that "Artistic authenticity is anchored by the performing author in so far as s/he is assumed to be the unique origin of sound, while subcultural authenticity is grounded in the performer [and composer] in so far as s/he represents the community." (Thornton 1996, 30) Though I agree with

her definition of subcultural authorship, I would add that Chris is the "unique origin of sound". Even though Chris is assembling fragments of ready-made sounds, he is still assembling them according to his own vision. As Michael Berk says "No matter how complex and automated [these technologies] become, synthesizers and samplers simply offer an alternative sort of sound possibilities, whether that potential is realized is ultimately the musician's decision." (Berk, 199)

The sampler, the computer software and the internet are only tools that are waiting to be used by the artist. The end result is still dependant on the human creator. In this sense, this type of music-making is no different from any other. Though the specific means may be different, the end result is similar: music made for consumption.

There is much criticism of the use of sampling within pop music as it openly appropriates the music of others. This goes against the singer/songwriter model in popular music because the traditional role of the creator who performs his or her own music is not there as a point of authenticity. In popular music, notions of authenticity are often based on the singer/songwriter, who is expected to "speak the truth of their own situation, that they speak the truth of the situation of (absent) others; and that they speak the truth of their own culture, thereby representing (present) others." (Moore 2002, 209) It is replaced instead with a person who not only manipulates the music of others to create his or her own

piece, but the role of the creator as a separate, venerated model becomes decentralized from its central position.

It can be argued that the producers of electronic popular music are often being authentic to their own experience. It is hard to pinpoint exactly what the 'authentic' in music actually is. Questions always arise like, authentic to whom? It might be safe to say that the idea of authenticity is a myth. To claim something as authentic is to want to uphold a certain value system in a given genre. Perhaps using these terms is a way of seeking exclusivity¹⁰ or more likely, a way of identifying meaning in music. When questioned about sampling being 'unoriginal', James commented as follows:

In terms of computer music being claimed to be 'unoriginal,' one could probably say the same fairly easily about almost anyone making blues music. Samples can certainly be used in creative, and consequently original ways. (Interview with James, July 7, 2003)

James' comments identify a very important factor; that all musics show influences from either their own or other genres. Some genres, such as the blues, are based on the repetition of a chordal pattern. The originality in blues music comes from the personal nature of the lyrics and the style of the playing and singing, not from the structure of the music. From this point of view,

¹⁰ See Consumer/Producer chapter on Goehr and the idea of the 'work concept.', p26-27.

questioning authenticity and sampling seems futile. Chris had the following comments to contribute:

What about poor old clever Handel? He stole music from [other] of composers and never really made mention of it. The McMaster library has a set of scores of other contemporaries of Handel that outline where he lifted from them. Some musicologists that like Handel would argue that he changed the music he borrowed from 'contextually' and that is the key."
(Interview with Chris, June 19, 2003)

This is also an important statement because it shows composers have always borrowed from each other and from themselves. Perhaps some would criticize sampling in computer music because it is a more obvious kind of borrowing. Regardless, what makes something original is that it comes from the point of view of the person who is producing it. After all, it is according to the creator's vision that a borrowed fragment can be seen in a new context.

Conclusion

This thesis discusses how technology is helping to change the roles of producers and consumers of music, but it is not technology itself that makes this process new. Technology has always served to facilitate a process, making life easier, more comfortable and faster paced. We become reliant on it only after it is introduced to general use.

Technology has always had a relationship to music. The present does not differ radically from the past. The computer and its applications only serve to make and consume music easier, faster and from the comfort of our own home. This process is allowing for the breakdown of the traditional roles of music producers and consumers as the computer gives ordinary persons the tools to consume, create and disseminate their creative accomplishments.

In the past, these tools were protected by music establishments in classical and popular realms. In all genres of Western music, the professional musician and composer must invest much time in building up his/her skills to live up to his/her professional standing. Today's computer software provides the ordinary person the ability to by-pass the long hard road of study and experience, which the professional must take by enabling the amateur to create a product of quality within his/her own context and/or community. Computer technologies have also assisted the amateur musician to by-pass the music industry run by giant record companies. Up to now, these corporations had complete control of

distributing music to an audience whose listening experience was mostly relegated to the decisions of the record industry. The Internet in particular has opened up a world-wide audience for the amateur musician to distribute his/her music. The Internet has also empowered the listener with the ability to choose what music he/she listens to.

The use of electronic music is prevalent in popular culture. We can hear it in all sorts of media, advertising on television and radio, in movies. It has become a common background to our listening pleasure. In this way, computer music reflects modern Western life. When we hear this music we might be inclined to think about 'urban,' 'progress,' and 'computers.' We are hearing the products of the future, computerized, digital, and the music reflects all of these things. This music is as pervasive in our life as are computers themselves. Music and society are one and the same.

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