

The more you listen, the more you hear:
“High or low” divisions of electronic music

Elizabeth Pearse

Bowling Green State University

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Abstract

Discussion of electronic music in academic circles has traditionally limited itself to topics surrounding Institutional electroacoustic music, defined by musicologist Joanna Demers (2010) as functioning “thanks to the support of governments, private industry, and educational centers like universities” (p. 6). Traditionally, the other realms of electronically created music – electronica and sound art – have been (at best) neglected by the academy, and looked at as less worthy or less important as areas of serious study. However, all electronically created music shares a lineage, and by applying the aesthetic “interrogation” posed by Demers – *that is, can or should electronically produced sound convey meaning* (p. 149), in tandem with the semiotic discussion “If it conveys meaning, how and why?” it is possible to fruitfully dissect a much wider variety of music than has previously been examined. Analysis of artworks not easily identified as either high/low art illuminates some of the prejudices experienced in aesthetic discussion, and why a more integrated view may be prescribed.

Keywords: Electronic music, experimental, electronica, electroacoustic music,

[author’s note: for an interesting, irreverent, and informative if *somewhat* inaccurate guide to the realm of popular electronic music, please visit <http://techno.org/electronic-music-guide/>]

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INTRODUCTION

Since the birth of “electronic music”, disagreements among artists have spawned new ways of thinking about sound. Examples of such disagreements include: what material should be used, who the audience is or should be, or how an audience should receive the sounds heard. Differing opinions on these points led to the formation of several centers dedicated to exploration and production of electronic music. Successive generations of artists have either aligned themselves with certain aesthetic ideas, or branched off into new territory. This continual growth and division within electronic music has led to the plethora of genres, subgenres, and “scenes” that currently exist.

As an art form, electronic music occupies a unique place in scholarship – it developed in tandem with modern music philosophy and criticism (post-1945). Pierre Schaeffer, generally considered the earliest “important” electronic composer, discussed what he was doing from an aesthetic/semiotic standpoint in his *Traité des objets musicaux, essai interdisciplines*. According to Demers, in his *Traité*, “Schaeffer regards music notation as a signifier whose relationship to the signified musical idea is arbitrary” (Demers, 25). In addition, Schaeffer was discussed by semiotician Jean-Jacques Nattiez in his *Music and Discourse*. Scholarship and aesthetic discussion regarding electronic music develops in immediate reaction to new works.

Currently, composition via electronic means is taught as a sub-section of composition in Western Art music conservatories. However, only a tiny fraction of the electronic music that exists today is generally discussed/prescribed within the academy – and that is “Electroacoustic” music. Electroacoustic (hereafter “EA”) is the label given to electronically created art music that

is produced by (and arguably for) those supported by academic or government institutions. It is the music studied by, made by, and written about by Western Art Music students and their professors (much to the exclusion, necessary or not, of all other consumers of music).

The aesthetics of electronic music is still a nascent field of study. At this time, as the academy is more inclined to write journal articles than the lay person, most focus in writing of electronic music aesthetics has been on EA. However, there seems to be growing interest in *other* electronic musics among certain musicologists. This paper will focus on ideas organized by two – Joanna Demers and Simon Emmerson. In their recent writings, these university music professors attempt to discuss a viewpoint of aesthetics in electronic music that is applicable to music made both within *and outside of* academic institutions. I align myself with their aims as a university-trained musician with significant exposure to and enjoyment of “non-academic” electronic music. I believe that approaching an aesthetic of electronic music in this way, though unlikely to inspire any grand unification of the multitudinous genres, subgenres, and “scenes”, may at least serve to lessen the estrangement between academic and “popular” electronic music.

EARLY HISTORY

One could frame a history of electronic music by discussing the development of technology – resources such as Thomas Holmes’ *Electronic and Experimental Music* (1st ed.) does just that – chapters outline “The Early Years” of electrically-powered instruments and the advent of the tape recorder, “The Studio Age”, and “The Synthesizer Era”. I will instead focus on the individual artists who use these technologies. (This is a highly truncated and important-figure-omission-heavy history). In interest of scope, we start in WWII-era France, where the young audio engineer Pierre Schaeffer began experimenting with manipulating recorded sound for non-practical purposes during his apprenticeship at the Radiodiffusion-Télévision Française

(RTF). His affinity for sound manipulation, combined with his access to state-of-the-art material, led to the first known concert of *musique concrète*, broadcast via radio, in 1948. *Musique concrète* refers to the technique of using field recordings of sounds – for examples: spoken word, newsreels, animal sounds, traffic noises, and etcetera – as the sonic material.

According to Holmes (2002), Schaeffer's work alongside Jacques Poullin at the RTF attracted the attention of composer Pierre Henry, who joined the studio in 1949. By 1951, the trio's successful experiments in *musique concrète* inspired the RTF to build for them the world's first dedicated electronic music studio - the Groupe de Recherches Musicales (GRM). In 1952, Karlheinz Stockhausen was granted studio time at the GRM. A young German composer, Stockhausen quickly became one of the most important of Germany's Cologne (Köln) radio studio Westdeutscher Rundfunke (WDR), which presented its first concert in the early 1950s. The WDR studio differed fundamentally from the French RTF in that the members of the German group, led by musicologist Herbert Eimert, used electronically generated sounds as their musical material. Calling it *Elektronische Musik*, this was a continuation of theories of serialization set forth by the Second Viennese School composers. According to Holmes: "They extended Webern's rules for pitches, timbres, and rhythms in twelve-tone composition to dynamics, densities, and amplitude" (Holmes 2002, 101). Using electronically produced sounds lent a greater degree of control over the materials than a composer may expect working with human interpreters of a piece, and this was attractive to those experimenting in more "total" serialization of music.

STUDIO DIVISIONS

This difference in material led to animosity between the two studios. As stated by composer (of the WDR studio) Konrad Boehmer: "In the '50s, you had two types of Cold

War...One between the Soviet Union and the United States and one between the Cologne studio and the French studio. They disgusted each other. The aesthetic starting points of Schaeffer were *completely* different from Eimert's views" (Holmes 2002, 100, emphasis author's). Explained by Demers, Eimert was "a committed twelve-tone composer who wanted to expand serialism's control of musical parameters...RDF's Pierre Schaeffer, meanwhile, was an avid reader of symbolist poetry and, like the symbolists, wanted to create art that played with the internal music of words and found sounds, irrespective of their meanings" (Demers, 45).

Perhaps not surprisingly, the first composer to combine elements of both studios (that is, *concrète* and *Elektronische* elements), was Karlheinz Stockhausen. His 1955-56 composition *Gesang der Jünglinge* "broke from the aesthetic dogma that had preoccupied the heads of the Paris and Cologne studios...a work of artistic détente, a conscious break...the piece is entirely unlike anything that preceded it" (Holmes 2002, 138). By simply combining elements that were readily available (organic sounds on tape, sine-tones and other electronically produced waveforms), Stockhausen was considered a revolutionary. Considering the breadth of electronic music available now, much of which incorporates aspects of both, it is nearly inconceivable that at one time composers were bickering over whether or not it was "right" to use one or the other. That a "cold war" between proponents of *Elektronische Musik* and *musique concrète* even existed seems slightly ridiculous. It could be suggested that the sonic materials were just pawns in the larger argument over what the aims of composers ought to be. The "French" side, led by Schaeffer, was compelled to master the sounds in such a way that they were stripped of external meaning to allow the sounds unbounded acousmatic freedom from meaning within a composition. The "German" side, with Eimert, attempted to master the sounds by removing possible human contamination to allow freedom from serial error. The material they used was

subsidiary to their aims.

REDUCED LISTENING

It may be productive to pause the history discussion in order to discuss the aesthetic aims of one of the “founding fathers”. Pierre Schaeffer coined the term “reduced listening” in reference to what Demers explains is “a bracketing out of the cognitive associations that would normally accompany recognizable materials” (Demers, 14). His efforts in *musique concrète* included experiments in obscuring sound sources – for instance, taking the sound of a bell being rung and removing the attack and release portions of the sound envelope. Hearing only the sustained ringing sound of the bell produces a tone that is not quite as easily recognizable to the ear as “bell ring”. This obscuring of the sound source is called “acousmatic reduction” in some literature. The term refers to the *akousmatikoi* of Pythagoras, who placed musicians behind a curtain in order to not be “distracted” by the visual aspect of live musical performance.

In his *Traité*, Schaeffer outlines four modes of hearing/listening (discussed by Demers, 27):

- écouter*, “I listen to that which interests me”;
- ouïr*, the physiological process of hearing sounds, without interpretation;
- entendre*, hearing while attending to certain aspects of the sound;
- comprendre*, an engagement with the sound and its external references.

He notes that acousmatic situations typically involve the first and fourth modes, as we tend to listen to sounds that interest us, and attempt to figure out what the sounds *are*.

Schaeffer’s prescription for “reduced listening” (*écoute réduite*) required the potential listener to consciously choose not to speculate on sound sources – to effectively deny the instinctual curiosity. This discipline of reduced listening was discussed by Nattiez as “essentially poetical in that it is in fact hearing *as experienced by a composer, who hears sounds with extreme*

attentiveness before integrating them into a work” (Nattiez, 95; emphasis in original). Basically, we are asked to listen to a piece not to treasure-hunt for sound identification; rather, to attempt to hear those aspects of the sounds that the composer found interesting (and appreciate them in a similar way). If it seems like a problematic proposition, the reader is not alone. Demers summarizes Claude Lévi-Strauss’ objections: “Lévi-Strauss echoes...by noting that noises already possess external associations that interfere with any new grammar or syntax innate to a piece. ‘*Musique concrète* may be intoxicated with the illusion that it is saying something; in fact, it is floundering in non-significance” (Demers, 29).

Composer Pierre Boulez, another early experimenter with *musique concrète*, aligned himself with the anti-Schaeffer side. However, as quoted by Demers, he expresses his opinion with more suspicious wording. He says, “To lend itself to composition, musical material needs to be sufficiently flexible, susceptible to transformation, and capable of generating and sustaining a dialectic” (Demers, 28-29). As someone who was also in alignment with many of the opinions set forth by Theodor Adorno, this statement must be examined for the agency involved. Like Adorno, Boulez states certain requirements of “musical material”, which effectively attempt to negate the significance of music that doesn’t follow the “proper” model. (Of course, the music made *by* Boulez and his associates would be examples of the “proper” music). Without delving into the field of Adornian aesthetics any further, it serves us well to be skeptical of those composers who write about what music “needs” to do to have worth. This very problem – what music “should” be – is the very heart of the divisions between “high” and “popular” electronic music art. This will be addressed further.

For all the writing and effort he put into the concept of “reduced listening”, Pierre Schaeffer eventually admitted the difficulty of the endeavor. Certainly, much has been learned

from his (and others') experiments in *musique concrète*. Perhaps the most important lesson is that the human ear and brain has a remarkable *need* to recognize and decode sounds – and though one can attend to certain aspects (timbre, envelope, layering), the conscious choice to “take sounds without their associations” is practically impossible. This adds an interesting element to discussion of semiotics in regards to music.

SEMIOTICS IN MUSIC

The study of semiotics in music is still a rather young field – the most important figures - including Eero Tarasti, Kofi Agawu, and Jean-Jacques Nattiez - are still alive, and teaching in universities (University of Helsinki, Princeton, and University of Montreal, respectively). As classically-trained musicians and university professors, it is not surprising that their writings involve semiotics of Western Art music, to the exclusion of other forms. As we return to discussion of the progression of electronic music, it bears reminder that even as varying forms of electronic music gained (albeit often marginal) popularity, the scholarship has been anemic. Musicologist Philip Tagg highlighted this very problem in an 1987 article in *Semiotica*. Under the chapter heading “Semiotics of Music = Semiotics of Western art music?":

“In short, many musical semioticians have in this sense followed the formalist tradition of musicology...no other alternatives being readily available within the ivory tower where it sometimes seems that music can still be treated as though it were clinically free from sociocultural contamination by symbols...This neglect of popular music as a field of serious study by musicologists and semioticians is of course a matter of cultural politics” (Tagg, 283).

Having (to this point) been exposed to a semiotics of music that is so frustratingly narrow in scope, it is refreshing to know that there are members of the academy (such as Tagg, who is also

a university professor) who *also* see this deficit. To be sure, certain resources exist. Simon Emmerson's publication *Music, Electronic Media, and Culture* (2000), is a collection of essays of the culture-studies bent (some of which do discuss "popular" outfits such as Frank Zappa, the Velvet Underground, and Throbbing Gristle). Demer's *Listening Through the Noise* uses a brilliant array of artist examples, most of which come from the "popular" realm. However, there is much more research and discussion to be done. For now, we return to a discussion of the progression of electronic music, and its liberation from the exclusivity of the academy.

CO-OPTING TECHNOLOGY

A major factor that kept early electronic music within the boundaries of government-run or academic institutions throughout its infancy was the nature of the technology. Early electronic music studios housed equipment that was expensive, often heavy and large, and extremely difficult to use. When Schaeffer was first experimenting with *musique concrète* at the RTF, he had access to "a wealth of radio broadcasting equipment, including phonograph turntables, mixers, microphones, and a direct-to-disc cutting lathe...(and) a large archive of sound effects records owned by the studio" (Holmes 2002, 91). The first composers of electronic music were part engineer, part technician, and part musician. Schaeffer, we recall, was an engineer and broadcaster when he began work in the RTF radio studio. Jacques Poullin was an audio engineer who helped Schaeffer design more specialized equipment for the musical aims he pursued. On the German side, though Herbert Eimert was a musicologist and composer, it was his alliance with Werner Meyer-Eppeler (physicist) and Robert Beyer (sound engineer) that led to the first presentations of *Elektronische Musik*.

As the techniques for composition developed, so did the technology. First, advances in recording technology made ever more fine manipulations of sound samples possible, with greater

ease. Multi-track recorders made obsolete the prior practice of “recording from one mono tape recorder to another while playing along” (Holmes, 2002; 150). Today, nearly anyone can record and manipulate sound. Free downloadable programs such as Audacity put a sophisticated range of recording technology within access of anyone with a computer. Unlike the early days where every sound would need to be separately recorded, spliced together, and overdubbed, one can overdub tracks with mouse clicks. Sounds can be removed, added, and modified instantly – without any expense (save the cost of owning a computer).

A second area in which technology has developed is the keyboard-controlled synthesizer. Synthesizers such as those made by Robert Moog greatly expanded the realm of possibilities in sound manipulation and creation. Though electric keyboard instruments (such as the Hammond “pipeless” organs) had been available prior to the 1950s, the Moog modular synthesizer (introduced in 1967) was among the first to spark interest in a wider audience. Musician (and technician from the Columbia-Princeton Electronic Music Center) Wendy Carlos said, “I thought what ought to be done was obvious, to use the new technology for appealing music you could really listen to. Why wasn’t it being used for anything but the *academy approved ‘ugly’ music*” (Quoted in Holmes, 2002; 166, emphasis mine). Indeed, the Moog synthesizer family was eventually adopted by a wider musical audience. Though not easy-to-use by any stretch of the imagination, the Moog offered an ease of use that appealed to performers in “live” situations. *Switched-on Bach*, a best-selling classical album of 1968, featured Wendy Carlos’ interpretations of the keyboard works of J. S. Bach on a Moog. Contrast to earlier “academic” music concerts, which were described thus by Carlos: “That was before the days that computers were tied to controllers of any kind. You had to type a note list, a timbre list, an envelope list, a conducting list, and then all of those things got ground together into very mechanized, stilted, pseud-

performances that just drove me up the wall” (ibid., 166). Using the Moog, one was able to control many more features of a musical sound on the fly – a necessity for live performance.

Eventually, the technology of electronic music production became user-friendly enough to be marketed to a less “specialist” audience. It is suggested by Thom Holmes in *Electronic and Experimental Music* (2nd edition) that the second Carlos album, *The Well-Tempered Synthesizer* of 1969, is responsible for making the word “synthesizer” a household term. “The interest generated by this one record was responsible for the burgeoning use of synthesizers in all music genres, from rock and jazz to...the avant-garde. The Moog was much in demand and every hip musician and commercial recording studio wanted one” (Holmes, 2002; 178). Most rock bands have historically been “plugged in”, so to speak, but the development of the Minimoog, designed for live performance application, ushered in new possibilities. Bands such as the Beatles, Pink Floyd, ELP, and Yes used synthesizers in a variety of applications. The ability to branch out past guitar, piano, bass, and drum sounds appealed to certain groups. Arguably, the synthesizer was one of the most important contributions to popular music in the 20th century. Now, the era of VST (Virtual Studio Technology) places a near-infinite array of sounds, effects, and “virtual synthesizers” at the disposal of anyone with internet access. (An example: using a quick internet search, I was able to easily locate a VST Minimoog – downloadable for free. If I wanted to purchase the physical instrument, it would set me back roughly \$3000).

In the late 70s, the vinyl turntable found a new application as musical instrument, rather than just a tool for playing recordings. DJs had been manipulating dual-turntable setups to provide continuous music for dance parties throughout the disco era. Over time, musical experimenters such as Grand Wizzard Theodore exploited the sounds made when a needle scratches on a record being manipulated by hand. He explains his “discovery” of scratching on

the documentary *Scratch*:

“I was playing music (*while practicing DJing*) a little too loud, and my mom came in...while she was in the doorway, screamin’ at me, I was still holding the record, and rubbing the record back and forth...I was like...that’s a pretty good idea. . .I experimented with it” (Grand Wizzard Theodore speaking during *Scratch* documentary, 0:38-1:19).

Though it developed far from any “professional” music studio, as a technique, “turntablism” is quite sophisticated. Turntablism involves an artist manipulating two or more turntables, in tandem with a mixing board, while trading disks in and out, “beat-matching” (that is, keeping a steady tempo for the dance), and creating dialogue with a collection of scratching techniques (such as “scribbling”, “chirping”, “twiddling” and “flaring”) – and this is all done live, in front of an audience. I choose to mention this segment of hip-hop history because it highlights the use and manipulation of sounds with technology in an arena far from the academic/government run studios at the time.

After hip-hop, the next major movements in popularly-involved electronic music were the developments of house and techno in Chicago and Detroit (respectively) dance music scenes. Interestingly, explaining the differences between the two from a sonic standpoint harkens back to the original division of the French and German electronic studios. Chicago house music typically includes samples of older tracks – funk, soul, and gospel snippets are worked into a 4/4 dance beat. Techno, on the other hand, was developed extensively with synthesizers and more machinistic sounds (perhaps owing some inspiration to the automobile factories in the city) – a rather *concrète* vs. *Elektronische* comparison! These can be counted among the progenitors of today’s dance music.

This brief history of electronic music has been shaped in an attempt to show certain commonalities that can be seen between the many artists who perform within the realm of electronic music. I admit freely that there is much I have not discussed – I regret that it is not within the scope of this study.

CLASSIFICATIONS OF ELECTRONIC MUSIC – DISTINCTIONS HIGH/LOW

Due to the sheer musical variety, categorization of types of electronic music is difficult. For the purposes of discussion, I wish to borrow Joanna Demers' use of three subcategories to frame the entirety of electronic music. These are *Institutional electroacoustic music*, *Electronica*, and *Sound art*. Institutional electroacoustic music is that which “functions thanks to the support of governments, private industry, and educational centers” (Demers, 6). Electronica is that which most consider “popular” music – though Demers notes that most electronic music of this type is “nominally popular” at best. Sound art is described as “works that use non-narrative sound...often in a site-specific context in which sounds interact with their venue”. These are location-distinctions – where a work is made or performed seems to dictate how it's defined. To focus discussion, I wish to dwell on two of these categories – Institutional electroacoustic music and Electronica.

Joel Chadabe, in a 2000 article for *Computer Music Journal*, announced:

“At this particular moment in the history of computer music, the flow of ideas between high art and popular art seems to have a particular significance.

Indeed, the protective parapet that has long kept high art and popular art mutually exclusive seems to be showing signs of vulnerability. . .we are aware that technology is changing the world and that it will also change the world of computer music.” (Chadabe, 9, also quoted in Neill, 3).

To define these categories simply by location of composition (within or without a government/academic institution's backing) seems like an oversimplification – but it is the most accurate description of how most people actually distinguish between them. For example: In my class presentation on “high” and “popular/mass” questions in electronic music, I presented five examples of pieces, and asked my classmates to guess which was high or low. It would likely have been more effective had they *not* seen the names of the composers beforehand – as they quickly recognized the piece by Aphex Twin (pseudonym of composer/producer Richard D. James) as “popular” and Stockhausen's *Gesang der Jünglinge* as “high art”. Pieces that were more troublesome included works by Delia Derbyshire, Squarepusher (a.k.a. Tom Jenkinson), and Jon Fielder. Squarepusher's “Vacuum garden”, off 2006's *Hello Everything* album, “is six minutes of beatless ambience that ebbs, flows, and spooks” (Burgess, 2006). Certain students guessed it was “high” art. I would tend to agree – but this is problematic in light of Demers' definition (Tom Jenkinson, though a trained musician, does not work from any sort of “institution”).

In this case, my classmates aligned with composer/author Ben Neill who, in answer to the question “What is the distinction between popular and high-art computer music?” said, “The question can be answered in one word-rhythm” (Neill, 3). He goes on: “Many art-music composers scoff at the idea of using regular 4/4 rhythm patterns in their works” (ibid.). In fact, in discussions with several composer friends with varying knowledge/interest in non-“institutional” electronic music, the presence or absence of rhythm was cited more often than any other aspect of a work in whether it is “High” or “popular”. In our December 8 class meeting, the Jenkinson piece was classified as “high art”, and the Delia Derbyshire “Psychadelian Waltz” was classified as popular (perhaps because it features a trippy-but-recognizable 3/4 waltz rhythm). This is in

opposition to the Demers definition, which would reverse the two, simply because Derbyshire was working with the BBC, and Jenkinson is an independent composer who is signed to the “popular” Warp label. To use rhythm (as many do) to distinguish art music from popular is also a gross oversimplification, and “exceptions” such as the Jenkinson and Derbyshire examples illuminate this.

Joel Chadabe suggests that target audience is the proper distinction.

“Computer music (*that is, electroacoustic – author*) is aimed at an elite group of listeners that constitutes a segment of aristocratic high-art music culture. The elite group of listeners is small in number. . . .the artistic concepts that have grown out of computer music are so new that a larger elite group has not yet had the time to grow. Popular electronic music, on the other hand, exists within a commercial entertainment culture. A song or a performing group is in effect a product designed to be immediately successful within a targeted segment of the mass market” (Chadabe, 10).

Examining this quote a little more closely reveals some of the agential language symptomatic of many members of the musical academy. Chadabe insinuates that the reason that electroacoustic music has such a small audience is that no one else is equipped to properly appreciate it – that the lofty artistic concepts would be ungraspable by most listeners. Then, by suggesting that “popular” electronic music is “designed” for success for a targeted market, he denies the free choice of an audience – a “pop” piece is successful because it was designed to be, not because it has musical merit. Surely, this is not always the case.

Dr. Tony Myatt (from the University of York, UK) suggests yet another way to divide. “All these classifications for new approaches to computer music are problematic...meaningless

terms, often revealing more about authors' intentions than their subject" (Myatt, 1). He then explains the self-coined term *oppositional and independent practice* to describe non-academic music: "This relates to both the independence of sound artists and composers who work outside academe, and the idea that much work in this field is in opposition to received musical aesthetics" (ibid.). This article, which is an introduction to a special issue of the *Organised Sound* periodical focused on non-academic computer music, attempts to explain the importance of studying non-academic computer music. However, I feel it just serves to draw the line between the two ever more deeply. Joanna Demers seems to agree, mentioning the issue thus:

"Even this gesture of inclusion affirms, rather than breaks down, generic barriers. The fact that *Organised Sound* sequesters electronica from other forms of electronic music is simultaneously heartening and troubling. . .by corralling electronica within its own issue, *Organised Sound* might, in fact, be building yet another ivory tower, one that ensconces electronica safely away from other genres it might otherwise threaten" (Demers, 144-145).

A seeming compulsion to somehow keep these musics separate is evident in most academic writing. Demers discusses the lack of inclusion of most electronic music outside the academic realm in publications on "Electronic music" such as *Electronic and Experimental Music* (Holmes 2002), and *Electronic and Computer Music* (Manning). In the pile of books and articles I sifted through for this work, I found this to be frustratingly true – there are thousands upon thousands of pages dedicated to electroacoustic (academically-generated) music, and only a few mentions (save the stunning variety in Demers' *Listening through the Noise*) of the works of composers outside the academy. The few mentions I did find generally involved those electronic artists whose work most resembles that of the academy (most often Aphex Twin).

AESTHETIC APPROACH

As demonstrated, one encounters many problems when attempting to concretely classify electronic music as “high” or “popular”. Any effort to distinguish one from the other reveals biases based on ideas of artistic worth. In this way, it may serve discussion better to *abandon* discussion of how to classify specific pieces of electronic music, and replace it with an aesthetic approach. Joanna Demers poses a basis for aesthetic discussion of electronic music: “At the heart, then, of electronic-music aesthetics is a continued interrogation of whether electronically produced sound *can or should convey meaning*...there is no consensus on this issue” (Demers, 149; emphasis mine).

Can electronically-produced sound convey meaning? This returns us to the discussion of semiotics in music. As mentioned earlier, current semiological discussion of music tends to focus on Western Art music, of which institutional electronic music is a sub-set. I look with anticipation to future work examining a wider variety of music with semiotics – the field is full of rich specimens. Examples are numerous – such as the “Amen break” (a snippet from “Amen, Brother”, a track by the Winstons, circa 1969). This drum cadence has been used, looped, and become the basis of the dance music subgenre “Drum and Bass”. Another path: exploration of intertextuality in sampling from hip hop to mashup is fascinating – and a small body of scholarly literature is building.

Looking back to the aims of Schaeffer, it would seem that he would answer “yes” to the question “Can these sounds convey meaning?”. Schaeffer sought to negate this meaning in favor of a different sort of association to sound with his “reduced listening” theory, but that aim has generally been abandoned. I agree with the idea that electronically produced sound can, in fact, convey meaning – but that the meaning will differ based on one’s personal history, experience,

and other contextual conditions. For this discussion, I like the approach favored by Simon Emmerson. He describes the listening experience with a tripartite model:

-Physical Presence, describing “the listener..gain(ing) basic information on objects, agencies and actions...allowing a tentative construction of possible sources and causes of the sounding flow” (Emmerson, 2007, 2)

-Psychological Presence, “What are the options, choices and strategies open to the...agencies in the ‘auditory scene’. What might happen next and are our expectations met?” (ibid.)

-Personal and Social Presence, the social milieu in which the listening takes place.

Acknowledging these “presences” in a discussion of meaning makes it possible to describe a piece of music while accounting for personal biases – an aspect of musical aesthetic discussions that is frustrating at best, and often infuriating. Authors of the academy write eloquently on the music with which they are indoctrinated and familiar, and should not be faulted for it. What ought to be rejected in scholarship is the simple dismissal of “popular” electronic as somehow lower quality, “mass-audience-targeted”, repetitive drivel. The sin of omission is rampant within the academy, but using tools set forth by authors such as Demers and Emmerson, scholars may be better equipped to talk about “Electronica”.

CONCLUSION

As a musician-scholar whose interest in non-academic electronic music supersedes interest in EA, I very much look forward to continued discussion in the broad field of electronic music, especially to further academic exploration of “popular” electronic music. Scholars such as Demers, Emmerson, and Neill provide useful tools for a more unified discussion of electronic music. Artists who create music that blurs the lines, such as Aphex Twin, deserve more than

passing mention in academic articles, and perhaps it is within the music of these artists that better illumination into the nature of music, and answers into how high/low music should be identified, may be sought.

One final note: often, when electroacoustic circles are attacked for the elitism that they cultivate, the Milton Babbitt article “Who Cares if You Listen” (originally titled “The Composer as Specialist”, and changed by the editors without Babbitt’s consent) is invoked as a protective shield. Basically, it explains that composers ought to be experimenters with sound, and in that way, audiences should not expect to understand what they hear. Indeed, there is certainly room for infinite experimentation with sounds and music. Spinning this idea out, I would like to suggest that the results of these lofty musical experiments are the infinite varieties of electronic music that have evolved since the 1950s, and to neglect them is a perversion of the scientific process of experimentation.

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