A TECHNOLOGY OF THEIR OWN: ANTI-MASS SENTIMENT AND THE HIGH-END AUDIO COMMUNITY

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ABSTRACT

High-end audio hobbyism, or audiophilia, is a perplexing and often misunderstood culture with roots in the prehistory of audio recording technology. Certain audiophile characteristics, including an almost exclusively male constituency, elitist tendencies, and a privileging of knowledge, are as distinctive of audiophilia today as they were at its inception. It is the goal of this thesis to extract the origins of these traits and to explain how and why they have remained at the forefront of the culture despite, and sometimes as a consequence of, social and technological transformations. This project attempts to explain the origins of audiophilia while highlighting how the culture communicates, organizes, and defends itself against the perceived threats of feminization and massification. A discursive analysis of audiophile reactions to the introduction of digital audio is used as a case study to illustrate the intricate and often specious rationale of high-end audio culture.

Keywords: audiophiles; audio technology; gender; hobbyism; high-end audio; golden ear; community; masculinity.

For JGH and HP.

And for Nipper.

Always faithful.

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You may not realize the impact you've had but I will always remember. Semper fidelis.

TABLE OF CONTENTS

1: INTRODUCTION

"AUDIO VERITY: The better the system, the more insatiable the ear"
(Stereophile, 5.5, 1982, p. 29).

Audiophilia in one form or another has existed almost since the inception of audio recording in the late 19th/early 20th century. The various philosophies and practices of audiophiles through the analog and digital eras of music recording form a fascinating area of study because they demonstrate that technology is accorded qualities and traits quite apart from its intended function to play back recordings. Audio technologies are not merely a means to a musical end; rather they are carefully selected commodities that have prescribed social and cultural meanings. For this thesis I will first consider audiophilia as a practice. I will attempt to define the audiophile, noting some general commonalities and dissimilarities between various communities of audio consumers. Taking a historical approach I will try to trace the roots of high-end audio: how it emerged, how it has sustained itself, and how it has responded to the introduction of new technologies. My interest in high-end audio stems from a previous project in which I examined advertising in commercial audio publications (mostly *High Fidelity*) in an attempt to uncover the major concerns of the audiophile. Major themes revealed through my analysis were masculinity, elitism, and a privileging of knowledge. However I was conscious that my methodology examined a mass circulation publication for insights into an exclusive, highbrow culture and thus I questioned whether these traits originated with the audiophile or with the advertisers. Moreover my analysis was period specific and did not take into

account the social and historical factors that may have resulted in products being positioned in such a way. For this thesis I will refine my methodology to consider the origins of audiophilia and conduct an examination of two high-end "underground" audio publications.

My project consists of two parts. First I want to unpack audiophilia as a practice. I will trace the history of audiophilia and attempt to reveal the roots of its major themes. While audio technologies have evolved considerably over the past hundred years it is clear from both academic sources and my practical research that masculinity, elitism, and knowledge about sound are traits that remain central to high-end audio culture. Surveys of specialty audio magazines confirm that the audiophile community is almost exclusively male. Audiophiles also possess above average incomes and tend to be well educated. I will try to explain the genesis of these attributes and how and why they have been sustained over time. I am curious as to how audio technologies have been prescribed masculine traits and by whom. I will examine the push/pull between industry and user: What role does the industry play in the construction of the consumer and in affirming the maleness of these technologies? How have users delimited their practices and influenced the industry in turn? Second, once I have traced the gendering of audio technologies from a historical perspective I want to investigate how the introduction of digital technologies in the late 1970s and early 1980s jeopardized high-end audio culture. Advertisers positioned digital audio as "perfect" — certainly the goal of high fidelity — but at the same time digital audio threatened to democratize music listening and thus depose audiophile culture.

My analysis comprises primarily of an examination of two "underground" audio publications. One publication, *Stereophile*, is pro-digital, while the other magazine, *The Absolute Sound (TAS)*, takes a vehemently anti-digital stance. Having first unpacked the socio-cultural dimensions of audiophilia through the history of sound recording I analysed the discourse of audiophiles in these publications from 1978-1985, the period of digital's introduction. As will be explicated further below, magazines have continually served as the primary forum of communication for audiophiles. They offer ample fodder for the intertextual relationship between hobbyists, dealers, manufacturers, magazine editors, and other contributors. The reason I selected these publications for analysis is that both claim an independence from the pressure of major manufacturers. Neither *Stereophile* nor *The Absolute Sound* carried manufacturers' advertising until the 1980s. Moreover when they did begin accepting equipment ads, space was limited. For comparative purposes I occasionally refer to advertisements present in *High Fidelity* during the digital period. These examples are included to illustrate how high-end concerns are adapted and disseminated by mainstream manufacturers.

While my research does contain elements of historical analysis in that I tried to explain contemporary audiophile concerns by analysing social and cultural changes over time, my main methodological approach would best be described as comparative discourse analysis. Specialty magazines were selected as source material because they provided a forum to examine how audiophiles converse amongst themselves. I considered conducting interviews or performing ethnographic research for this project, and while I believe that both approaches are valuable tools of social scientific inquiry, I favoured this form of discursive analysis because it shed light on the topics that were of primary

importance to the audiophiles themselves, rather than what the researcher felt was worthy

of being asked. Interviews and ethnographies are fruitful modes of investigation but the

researcher's agenda may prejudice the results. Moreover what is revealed may be what

the subjects feel *should* be revealed, rather than unaffected thoughts and actions. The

researcher is an outsider and, as I hope to illustrate in the following sections, the culture

of high-end audio always regards outsiders with suspicion.[i] Comparative discourse

analysis of specialty magazines was also beneficial for several other reasons. First, it

allowed for an analysis of discourse within a specific time period. The print medium

preserves views as they are, untainted by the passage of time and the evolution of

thought. Second, it enlarged the scope of my study. While the circulation of these

magazines was small compared to commercial audio publications, it was substantially

greater than could be achieved through interviews or participatory analysis. Analysing

discourse within the context of these magazines also helped alleviate any geographical

bias that may have been present had I conducted research locally. And third, as noted

above, the forum of the magazine allowed for the *intertexual* analysis between various

actors. It is my contention that a holistic examination of audiophile culture including

producers, mediators, and users is imperative, as participants may not be thinking about

the broader social, economic, or cultural framework. Fairclough's (1998) definition of

critical discourse analysis is helpful here. He states,

> By 'critical' discourse analysis I mean discourse analysis which aims to systematically explore often opaque relationships of causality and determination between a) discursive practices, events and texts, and b) wider social and cultural structures, relations and processes; to investigate how such practices, events and texts arise out of and are ideologically shaped by relations of power and struggles over power (p. 134).

Since I am looking at the interplay between industry, mediators, and users, it is not enough to simply understand how users view their practices, but the dynamic of power must also be brought into the final interpretation.

My analysis involved a cover to cover examination of all issues of *Stereophile* and *The Absolute Sound* from 1978 to 1985. While I considered all features present in these magazines, certain facets were more informative than others when considering power dynamics and the origins of audiophile ideology. Editorials afforded the publishers a voice and served as a primary source for insight into the role of mediators in agenda setting in audiophilia. Both editors possessed strong views regarding high-end audio, opinions that were often given due consideration by hobbyists and manufacturers alike in subsequent issues of these publications. The letters section offered readers a forum to voice their beliefs. This feature best exemplified the intertextual nature of these magazines as hobbyists responded to editorials, manufacturer comments, advertisements, articles, and letters submitted by other audiophiles. Manufacturer responses and dealer advertisements were also carefully scrutinized both for their ability to influence the culture by putting forth new ideas, and for evidence of how they adapted to concerns originating from outside the industry.

As much as possible I tried to let the discourse present in these magazines guide my topic selection. I paid particular attention to subjects repeatedly raised by the various actors indigenous to high-end audio culture. As it happened many debates related to the themes of masculinity, knowledge, and elitism suggested by my previous research, and thus became appropriate categorizations for the body of this thesis. When examining the dialogue between different actors I paid particular attention to how contributors

articulated their status within audiophile culture. I looked for evidence of how they distinguished their activities from those of 'outsiders,' as well as for discursive tactics utilized to demonstrate their membership within the culture. I considered the power dynamics of various players, looking for blatant instances of symbolic violence as well as more subtle evidence of stratification. I also paid careful attention to references to other audio publications, both to other "underground" magazines and to the so-called "commercial" press, for how the sub-community associated with one particular magazine distinguished itself from other collectives.

Though my analysis is only intended to cover the early digital period I do refer to examples from print sources to support observations in the earlier eras. Until the 1960s there were no underground audio publications, thus I believe it is fair to look at the mainstream audio press. In the earliest period illustrations are taken from general interest publications, as specialty audio magazines had not yet appeared on the scene. Regardless of the era or the source my analysis is entirely qualitative. My primary goal was to consider how self-professed audiophiles articulated their positions within high-end audio culture, as well as how the industry worked to instil certain values upon the culture.

While several underground journals were in publication during the early digital period I selected *Stereophile* and *The Absolute Sound* because they have varying (and often oppositional) philosophies, though both claim the sound of live unamplified music as their reference for sonic accuracy (*Stereophile*, 4.8, 1980, p. 2-3; *TAS*, 4.13, 1978, p. 12). Despite their conflicting mandates it quickly becomes clear upon reading these journals that they attend to the same community. Letters and editorials in one publication often address an article in the other, and jabs are tossed back and forth between

publishers. High-end audio is a small, tight-knit culture, and magazines serve as the

"mediation junction[ii]" where information between hobbyists, manufacturers, dealers, and

critics is exchanged. By no means is the culture homogenous in its beliefs, but I will

demonstrate that despite differences in ideology, participants keep themselves informed

of all high-end developments.

My thesis can be broken down into several sections. First I will examine various

types of audiophilia as presented by different academics and as described in my source

material. I will then settle on a working definition of the audiophile for the purposes of

this endeavour. A discussion of the customs and beliefs of the audiophile will be

presented so that we may trace the lineage of these values throughout the history of audio

recording. I will then conduct a chronological examination of the evolution of the

audiophile community and its ideals. Throughout, my central theme will be how the high-

end community has been created, maintained as a community, and characterized by

masculinity, elitism, and the privileging of knowledge. Three eras of investigation can be

broadly delimited: pre-WWII audiophilia, post-WWII audiophilia, and the early digital

era.

2: UNPACKING AUDIOPHILIA

2.1 Audiophile Beginnings

An avid interest in sound quality has been evidenced almost since the very

beginning of audio media technologies. J. Gordon Holt, the founder of *Stereophile*,

references a letter written in 1904 in which the author describes a way to damp the shrill

sounds emitted from the phonograph by swaddling the horn with cotton. Holt asserts,

"Ever since sound-reproducing devices were available to consumers, second-guessing the

manufacturer has been a challenging and often rewarding pursuit" (*Stereophile*, 7.5,

1984, p. 6). Emily Thompson (2002) comes to a similar conclusion in *The Soundscape of*

Modernity, describing a man who in 1907 was already more interested in the quality of

the sound than the content of the recording. She argues:

> To this man and others like him, consuming sound quality was more
> compelling than listening to music. He derived pleasure from knowing
> that he had obtained the best-sounding reproduction possible, and his
> consummate taste enabled him to avoid the noises that characterized the
> inferior records that he had rejected (p. 237).

It is curious that the novelty of sound recording was reduced to issues of technical quality

so early after its establishment, and it is one of the goals of this thesis to trace why this

was the case. Three broad suggestions can be outlined here. First, in the nineteenth

century music appreciation had taken on the stigma of being a female pastime (Douglas,

2004, p. 88). By emphasizing the technical abilities needed both to play back and

understand recordings, men were able to enter the domain with dignity. This point is

imperative to understanding the inherent masculinity of audiophilia, a trait that continues

into the contemporary era. Second, early audio gear, starting with radio and later with amplifiers, often came in kits that hobbyists assembled themselves (Keightley, 1996, p. 151). The do-it-yourself mentality resulted in a privileging of technical knowledge and an emphasis on active participation. And third, competition between early phonograph and gramophone producers resulted in advertising based on technical merits. These companies instilled an ideology of precision and fidelity based on a belief in technical superiority in the minds of consumers (Thompson, 2002, p. 237). These factors will be considered at length in the chapters that follow.

2.2   Contemporary Audiophilia

It is important to separate early 'audiophiles' from the high-end audio aficionados of today. In the early years of audio media, ad campaigns emphasized the democratic potential of recording technologies, positing all consumers as potential audiophiles. For example, a 1918 ad for the Columbia Grafonola maintains, "Good music is a necessity—not a luxury" (*MacLean's Magazine*, March 1918, p. 4). Prior to recording technology "good music" was only for those who could afford to purchase concert tickets; it was for the illustrious and distinguished, not the moderate of means. Recording technology was the 'great equalizer,' it proudly brought music to the lower classes. But these democratic ideals did not appeal to all consumers, and thus a select group broke away from the pack, delimiting their own notions of what constituted sonic quality. Contemporary audiophiles are an elite class of consumer who view themselves as unique and talented individuals who possess superior sound evaluation skills. They regard themselves as separate from the average consumer, but do not like to be viewed simply as consumers of more

expensive products, rather as passionate music lovers who are willing to invest the time and money necessary to pursue their interest (Perlman, 2003, p. 352).

The term *audiophile* is somewhat ambiguous and worthy of consideration before we venture any further. When I tell people that I research audiophiles I am often surprised by the different connotations of the term. In my experience, most people seem to associate audiophilia either with record collecting or with hi-fi listening. While record collecting, or what Davis (2007) aptly terms *vinylphilia*, shares many commonalities with high-end audio (notably an emphasis on serious music listening and a privileging of knowledge about the musical commodity), the vinylphile's ultimate pursuit is the software rather than the hardware. On the other hand the *hi-fi enthusiast*, according to Holt, is a commercial construct that played a part in bringing about true high-end audio culture. Holt explains it like this:

> JQP [John Q. Public] did not buy a high-fidelity phonograph, he bought a hifi – something he saw as being as different from a lowfi as a car was different from a horse. It was the prevalence of this simplism which caused the initial split between audiophilia and hifi: When manufacturers needed something more expensive to sell, merely better sound didn't interest JQP. It wasn't DIFFERENT in a way that he could feel, touch or smell. He wanted more FEATURES – multicolored panel lights, pushbuttons, rocker switches, and more varieties of tone control with which to bugger up the sound (*Stereophile*, 5.4, 1982, p. 3).

From very early on products were marketed in relation to notions of fidelity, that is their faithfulness of reproduction compared to the original sound. Sterne (2003) notes that the term "fidelity" was first used to describe sound in 1878 (p. 221). By the late 1920s "high fidelity" became a catch phrase amongst enthusiasts (Morton, 2004, p. 94), a term that was quickly adopted by advertisers after the Second World War. Changing notions of the concept of "high fidelity," as well as the democratization and stratification of audio

technologies are essential to understanding the audiophile. We see above that for Holt, hi-fi is a misnomer that would better be described as mid-fi. Holt's hi-fi consumer is interested in hardware, but for all the wrong reasons. He accords status to his gear and may even subscribe to commercial audio publications, but does not truly appreciate sound. He is a pawn of the audio industry, blindly believing the latest specifications and statistics while rarely, if ever, relying on his own ears. To be fair, Holt does specify another category of hobbyist, whom he terms the "serious music listener" or the "casual audiophile" (*Stereophile*, 7.2, 1984, p. 4-9; *Stereophile*, 8.2, 1985, p. 5-10). The serious music listener truly appreciates music but is able to 'listen through' the sonic deficiencies of a given playback system to the desired signal, or music. Holt often speaks enviously of the serious music listener, who is blessed only with the love of music and not cursed with the compulsion to marry this with perfect sound.

So who is this mysterious audiophile? Even at the academic level it is difficult to find complete consensus as to the qualities that should be ascribed to the high-end enthusiast. From my observational analysis I have come up with a working definition of the "perfectionist audiophile," a term I have adopted from J. Gordon Holt and adapted somewhat,[iii] yet it does not fuse seamlessly with the accounts presented by Joseph O'Connell and Marc Perlman, the two researchers who instigated my own interest in audiophilia. Before I divulge my working definition, let us first take a look at their examinations of the high-end enthusiast.[iv]

2.3 O'Connell and Perlman

2.3.1 On Contemporary Audiophilia

Joseph O'Connell (1992) argues that contemporary audiophilia emerged in the 1950s as skilled veterans, who had been exposed to better European equipment during World War II, began to demand more sophisticated audio technologies (p. 4). These early enthusiasts often built their own equipment or were forced to modify commercial gear to meet their exacting standards. Some even published how-to guides for laymen and other hobbyists so that they too, could get the most out of the listening experience (Morton, 2004, p. 131). This tradition led to the establishment of several specialty magazines including *Audio* (1947), *High Fidelity* (1950), *Stereo Review* (1958), *Stereophile* (1962), and *The Absolute Sound* (1973). These magazines, which have varying philosophies, are the primary means by which participants reinforce their positions within audiophile culture (Perlman, 2004, p. 787). Yet audiophiles are in no way united in their beliefs or equipment preferences. Only the most basic assumptions can be made about audiophiles: they are interested in high-end specialty audio, they are usually male, they are usually educated, and they tend to make more money than the average person[v] (Perlman, 2004, p. 784). A few more generalizations can be made about the audiophile: they exhibit elitist tendencies, believing that hand produced goods are superior to mass-manufactured products and are thus worth the extra cost. As a result the audiophile denigrates Japanese-made equipment, rack systems, and Circuit City (O'Connell, 1992, p. 20; Perlman, 2003, p. 348). These elitist tendencies are largely a result of the audiophile's sense of superiority. He legitimately believes that he can hear things that others cannot, which helps him to justify his extravagant taste in audio playback devices (O'Connell, 1992, p.

11). Additionally, audiophiles privilege activity and independence. They prefer equipment that allows them to actively participate in the production of sound. Only component systems appeal to the true audiophile. Meters and dials that allow the audiophile to adjust the sound in a meaningful way are valorised, while insignificant gadgetry and fixed settings are maligned (Perlman, 2004, p. 802).

2.3.2   Meter Readers and Golden Ears

Audiophilia is a fascinating area of study because it is not altogether rational. Marc Perlman (2003) notes, "Audio technology, like all other forms of technology, is not simply a tool used for a practical purpose; it bears cultural meanings and personal emotional investments" (p. 346). In the 1950s audiophilia prized technical knowledge and expertise as participants were required to take a hands-on approach, but as the industry responded to the mounting demand for high-end audio, the culture of audiophilia divided along ideological lines. The availability of quality equipment meant that technological ability was no longer a pre-requisite of the hobby. Perlman argues that this has resulted in two distinctive groups of audiophiles, which he labels "meter-readers" and "golden ears."

Meter readers are interested in the technical aspects of sound and tend to understand and trust scientific analysis. They consider themselves to be rational and objective and are more likely to embrace digital technologies. Golden ear audiophiles, on the other hand, profess the accuracy of the subjective experience of listening over scientific measurements and strive for an emotional connection with the music. They reject digital technologies on the grounds that they are "unnatural" (Perlman, 2004, p. 794-6). What unifies the two groups is the common aim of the production of "absolute

sound," an abstract construct implying the truth of music itself (Perlman, 2004, p. 789). All audiophiles profess a passionate infatuation with music, though the means by which musicality is determined is distinctive to each group, and in many ways to each individual audiophile.

2.3.3 Tweaking

Both golden earists and meter readists enjoy the tactile experience of adjusting or 'tweaking' their equipment; however meter-readists will only modify parameters which are scientifically understood, while golden earists will invent non-technical tweaks such as elevating speakers on tennis balls or placing pennies on the side of speaker cones (Perlman, 2004, p. 794). Tweaking is important because it is a form of appropriation; the audiophile invests labour into the commodity, thus making it his own (Perlman, 2003, p. 350-2). The symbolic adjustments made by the golden ear audiophile are especially significant because they allow him to participate without requiring him to understand the science behind the sound. In audiophilia the only acceptable reason to desire a piece of equipment or to perform a tweak is because it creates an audible difference (O'Connell, 1992, p. 13). The prevalence of empirical testing in recent years has forced the golden ear audiophile to claim the supremacy of his ear. When science fails to confirm what the golden earist hears, then science is dismissed as incomplete. This is not to say that golden ear audiophiles reject science in general; quite the contrary, golden earists often explain their tweaks in broad scientific terms. For example, the use of pennies mentioned above is thought to create sympathetic vibrations that help to improve the definition of a sound. Science is simply not sophisticated enough to record the subtle differences heard by the golden ear (Perlman, 2004, p. 800-801).

2.3.4 Analog vs. Digital

The golden ear audiophile uses this same logic to reject digital technologies. Digital technologies are deemed unnatural and "unmusical" by golden earists because of the process of sampling by which analog sounds are turned into digital bits. Golden earists argue that digital audio technologies provide "only an *approximation*" of a sound event (Perlman, 2004, p. 794). Joseph O'Connell (1992) notes:

> The whole idea of digital—the chopping up of music into little pieces, and reconstituting it like powdered orange juice—simply offends some people because it treats music as something to be processed and treats themselves as imperfect machines to be fooled (p. 21).

But golden ear resistance to digital audio technology runs deeper than issues related to encoding. The 'black box' format of digital technologies limits possible interactions with the equipment, which reduces consumer agency. Moreover digital technologies threatened to democratize audio by offering a high-quality listening experience for a low price (O'Connell, 1992, p. 27-29).

2.3.5 The Audiophile and the Industry

Regardless of the methodology of the audiophile, the activity is rife with opportunities for industry intervention. The high-end audio market is an excellent illustration of the push-pull relationship that exists between industry and consumer. As noted above, most participants maintain their connection to audiophile culture through magazines that both advertise and evaluate high-end audio equipment. These magazines serve at once as promoters of merchandise to consumers and as a tool for research and development within industry. Consumers may use these magazines as forums to share tweaks, only to have these tweaks adopted, packaged, and sold back to them (Perlman,

2003, p. 351-2). Additionally, consumer resistance, as with golden earists' rejection of digital audio technologies, is fodder for niche market manufacturers. The industry targets the cultural preferences of the audiophile in order to sell products, while at the same time the audiophile resists or insists on adjusting certain products in order to remain an active participant in the production of music.

For Perlman and O'Connell, audiophilia is a cultural pursuit that emphasizes activity over receipt, and knowledge over blind acceptance. Over the years certain aspects of audiophilia have become culturally embedded such that it no longer matters whether the audiophile's actions are grounded in logic; the act of participation is valued over reason.

2.4 The "Perfectionist" Audiophile: A Working Definition

While I find the investigations of both O'Connell and Perlman into the culture of high-end audio to be both thorough and informative, I wanted to take the opportunity to conduct my own research for this project. For the most part my analysis is in accordance with the themes presented above. This is perhaps unsurprising given that we all examined similar source material (notably *Stereophile* and *The Absolute Sound*). While I will refer to Perlman and O'Connell throughout this work I want to provide my own operational definition of the high-end audiophile. Many of the traits accorded to the "perfectionist" audiophile are reiterations of those already presented, though I want to place emphasis on certain activities and beliefs that recurred time and again when conducting my study. As above, I accede that the perfectionist audiophile tends to be male, educated, and gainfully employed – these are facts gleaned from reader polls of audio magazines. Perhaps the most significant quality accorded to the perfectionist audiophile is his engagement with

his peer group. While he may spend countless hours alone listening to music and tweaking his system, the perfectionist audiophile is always a part of a larger community. The high-end enthusiasts that comprise my subject group are all subscribers to the underground audio press. Much of the perfectionist audiophile's time is spent in justifying his own beliefs and discrediting oppositional viewpoints. While he likely also subscribes to mainstream audio publications in order to stay abreast of mass-market fads, the perfectionist audiophile sets himself apart from the masses by allying himself with like-minded individuals. He may be silent or vociferous in his assent and dissent of the happenings in high-end audio (many readers are notorious letter writers), but he is never a passive participant. The perfectionist audiophile devotes a great deal of time to the acquisition of cultural capital – he stays abreast of all innovations, advances, and controversies within high-end culture. He maintains an active connection with the audiophile community through his subscriptions to the alternative audiophile publications, and by sustaining a relationship with local equipment dealers.

In accordance with his allegiance to audio subculture, the perfectionist audiophile's primary goal is sonic accuracy defined as the sound of live music in a concert hall setting. Because he expects recorded music to sound 'live,' he is sceptical of elaborate microphone techniques, and generally prefers classical music to rock and roll since he considers electroacoustic instruments and sonic spatialization to be unnatural (*TAS*, 8.29, 1983). While he professes that his hobby is in the name of music alone, the perfectionist audiophile treats his system as an investment in sonic pleasure. Unlike the mid-fi music listener, the high-end enthusiast finds it difficult to put a cap on the lengths he is willing to go to for sonic accuracy. Holt asserts, "The pursuit of audio perfection is

not a continuum where purchase cost and listening pleasure are directly interrelated in a neat, linear manner" (*Stereophile*, 4.5, 1980, p. 3). Provided he has the means, the perfectionist audiophile puts a limitless ceiling on monetary commitment.

While I am fascinated by Perlman's categorization of two different groups of high-end audiophiles, my experience with the underground audio publications *Stereophile* and *The Absolute Sound* demonstrates that the distinction between the *meter reader* and the *golden ear* is nebulous at best. Going into this project it was my understanding that *Stereophile* was a meter readist publication as editor J. Gordon Holt was an early supporter of digital audio technology. On the other hand I believed that *The Absolute Sound* had golden ear leanings as editor Harry Pearson maintained an adamantly anti-digital stance. Despite their conflicting mandates it quickly becomes clear upon reading these journals that no hard and fast categorizations can be made. While J. Gordon Holt is quick to question many of Harry Pearson's contentions, he explicitly refers to himself as a golden ear audiophile and professes and defends the subjective nature of his reviews (*Stereophile*, 4.9, 1981, p. 2-6). According to the underground press, the true meter readers are the mainstream audio publications (*Stereo Review* editor Julian Hirsch takes the brunt of the criticism from both Holt and Pearson), which are frequently accused of being in cahoots with their advertisers (*TAS*, 8.32, 1983, p. 40-42; *Stereophile*, 5.5, 1982, p. 11-14). Consequently, I am hesitant to use these terms to distinguish the subcultures that comprise the readership of *The Absolute Sound* and *Stereophile*. However certain differences between these communities are analogous to those outlined by Perlman and are worthy of consideration.

2.5　"Subjectivity" in The Absolute Sound and Stereophile

The Absolute Sound treats subjectivity as a badge of honour and spends much time defending the magazine's evaluation policies, which rely almost exclusively on listening trials. In a 1979 editorial Pearson states, "The word 'subjective,' we discover to our displeasure, is often used as a dirty word by techno-freaks and our brethren in the commercial audio press. You've probably heard it said: 'After all, it's only a *subjective* review'" (*TAS*, 4.14, 1979, p. 149). More than underlining the magazine's editorial policies this quote reveals several biases commonly expounded in the pages of *TAS*. Note the disparaging appellation "techno-freaks" to refer to enthusiasts who place stock in scientific measurements, as well as the 'us versus them' mentality toward the mainstream audio publications. Under the helm of Harry Pearson, readers are urged to trust their own ears above all else. In defence of *TAS's* subjective stance Pearson is quick to point out that measurements "prove nothing except that which the experimenter subjectively wishes to prove" (*TAS*, 4.15, 1979, p. 277). Science is presented not only as incomplete[vi] but also as a way of cheating the consumer by calibrating technology to the lowest common denominator. The 16-bit depth and 44.1 kHz sampling rate selected as the consumer standard for digital recording are commonly used as examples of how the industry undercuts musicality in the name of profit (O'Connell, 1992, p. 27; *TAS* 4.13, 1978, p. 9, p. 303; *TAS*, 4.14, 1979, p. 213-214; *TAS*, 4.15, 1979, p. 297-299; *TAS*, 6.24, 1981, p. 391-392; *TAS*, 8.29, 1983, p. 7-8).

For readers of *The Absolute Sound*, subjectivity is, well, absolute. This unconditional reliance on one's own ears has earned Pearson and his followers a reputation as "the lunatic fringe" (*Stereophile*, 5.8, 1982, p. 4). Over at *Stereophile*,

subjectivity is also revered, though the concept is defined somewhat differently. For Holt, scientific testing is respected where results have been shown to correlate with what one hears. However Holt posits that science is not yet able to accurately evaluate all parameters of sound. Given this, he is distressed that the mainstream press places so much importance on scientific specifications. Holt argues that certain audiophiles have fuelled the subjectivity debate by holding fast to ideas that are illogical and by refusing to investigate alternative causes for a given phenomenon (*Stereophile*, 4.9, 1981, p. 2-6). In a 1979 editorial Holt takes a masked jab at Harry Pearson when he asserts, "Lacking that frame of reference, many subjective testers have been leading themselves further and further astray from the very 'accuracy' they so sanctimoniously espouse" (*Stereophile*, 4.4. 1979, p. 4). Holt labels this group GESRs, pronounced 'guessers,' and standing for "Golden Eared Subjective Reviewers" (*Ibid.*). While Holt embraces subjectivity, he favours a balance between scientific reason and the experience of listening. He argues that audiophiles should be willing to put their ears on the line and find ways to prove that they can hear the subtle sonic differences they claim to perceive. Holt supports experiments in which audiophiles are forced to demonstrate the supremacy of their listening abilities under double-blind conditions, even volunteering to step up and serve as a listening panellist (*Stereophile*, 4.9, 1981, p. 2-6). Holt spends a great deal of space trying to carve out a rational subjectivity. He is clearly embarrassed by Pearson's stance, which is more ambiguous and amorphous, and attempts to validate his form of subjectivity by distancing himself from the GESRs.

Thus while *TAS* takes subjectivity and golden earism to the extreme, it is not entirely fair to label *Stereophile* a meter readist publication. To be sure, a brief glance at

Stereophile reveals a penchant for illustrative graphs and a respect for the fundamental laws of physics, yet Holt's reflexive categorization as a golden ear audiophile precludes my labelling him a meter reader. For the purposes of this project I'd prefer to consider the communities of both *Stereophile* and *The Absolute Sound* as perfectionist audiophiles and, according to the logic of these underground publications, treat the mainstream audio press as the meter readers. This deviates somewhat from Perlman's definition since it has the effect of correlating meter readers with mid-fi hobbyists, who for the purposes of this work are not considered to be audiophiles at all.

2.6 Magazines and Community

Since we are already in the process of comparing and contrasting *TAS* and *Stereophile* I would like to take this opportunity to discuss the role of these magazines in maintaining the audiophile community. As noted above, specialty audio magazines serve as a mediation junction in which information and ideas are disseminated and exchanged. Johan Schot and Adri Albert de la Bruheze (2003) define the mediation junction as a place "at which consumers, mediators, and producers meet to negotiate, articulate, and align specific technical choices and user needs. It is an area where agenda building and technology development become connected" (p. 234). While Schot and de la Bruheze do not include magazines on their list of mediators, I contend that in the world of high-end audio, magazines are the touchstones of community. This assertion does not go unsupported as Théberge (1991, 1997), Perlman (2004), O'Connell (1992), Keightley (1996), and Douglas (2004) have all demonstrated the important communicatory role of specialty magazines throughout the history of audio media. Paul Théberge (1997) notes the longstanding history of music periodicals citing *Musica Critica*, printed in Hamburg

from 1722-1725, as the first (p. 96). From their inception these publications contained articles, advertisements, and reviews – fodder for examining the reciprocal relationship between industry and user, as well as the interactions amongst users, and the role of the mediator in these exchanges.

Unlike the mid-fi magazines, which are arguably more advertiser driven, the underground publications provide an outlet for discussion and debate. Both *Stereophile* and *The Absolute Sound* are veritable forums of communication, accepting letters from both readers and manufacturers and limiting advertising. Readers are considered to be, and addressed as, "colleagues" (*TAS*, 6.21/22, 1981, p. 20) and are often consulted before major format changes are made. For example, when *TAS* contemplated extending its marketing policy to include manufacturer advertising, the readership was given time to respond to the proposed change (*TAS*, 5.20, 1980). Yet while the editors of these publications profess a neutral stance when it comes to reviews, they sometimes suffer mild despotism. For example in 1983 Harry Pearson responded to an unfavourable letter from a dealer by refusing to carry further advertisements for the firm (*TAS*, 8.29, 1983, p. 5). Moreover any semblance of neutrality is flung out the window when it comes to discussions and reviews of the Columbia Broadcasting System (CBS) and their products, which are scorned to varying degree by both *TAS* and *Stereophile* (*Stereophile*, 4.9, 1981, p. 24; *Stereophile*, 4.6, 1980, p. 70; *TAS*, 6.21/22, 1981, p. 13-14; *TAS* 6.24, 1981, p. 390; *TAS*, 7.25, 1982, p. 86-88). Pearson goes so far as to publish an "enemies list" of CBS recordings (*TAS*, 7.25, 1982, p. 11). The editors are aware of the power that they wield and sometimes call readers to arms, prompting letter writing campaigns and suggesting

boycotts of products and companies deemed unworthy (*TAS*, 7.25, 1982, p. 152;

Stereophile, 7.1, 1984, p. 4-7).

The letters section in both publications is extensive and offers personalized replies

from the editors themselves. Both favourable and unfavourable comments are published

from all parties, and controversy seems to be encouraged. (It is not uncommon for a

given debate to span the course of an entire volume.) As added incentive the editors will

occasionally publish a well-researched letter as a stand-alone article prompting

enthusiasm from the readership.[vii] Manufacturers are also given a voice in both

publications. They are given space to respond to all equipment reviews and are even

welcome to submit letters so long as they have "something (non-commercial) to say"

(*TAS*, 4.13, 1978, p. 12). Small-scale manufacturers are often called upon to contribute

articles and are considered full-fledged members of the community. In this way these

independent firms are able to influence the high-end market as well as be influenced by

the views held by readers and reviewers. Independent manufacturers are often held in the

highest esteem, a precarious position, as any disagreement with the editorial positions of

the underground press can cause their fall from grace.[viii]

While subscribers do tend to show allegiance to one editor or the other it is clear

from the back-and-forth banter between publications that the editors assume that their

readership subscribes to *both* magazines. Key contributors are frequently addressed by

their initials, and articles in sister publications are often discussed without preamble.[ix]

There is also an assumption that readers are familiar with, and scorn, the major mid-fi

publications, namely *High Fidelity*, *Stereo Review*, and *Audio*. Disdain for these

magazines is palpable and a common retort to a poorly conceived letter to the editor is

that the reader would be better off letting his underground subscriptions lapse in favour of the commercial press (*TAS*, 4.13, 1978, p. 9; *Stereophile*, 5.2, 1982, p. 17[x]). High-end audio may be divided into sects, yet it is clear that participants are expected to stay abreast of all events within the culture. While the magazines may broach certain subjects from oppositional viewpoints they tend to cover the same controversies. The editors firmly believe that they, and their readers, exert a great deal of influence over the high-end manufacturers, and both use their respective publications to voice their unyielding views.

2.7 Major Themes

Before commencing an historical analysis of the emergence of the audiophile I think it is important to address some of the customs and beliefs inherent in high-end audio. By first outlining the concerns of the contemporary audiophile we will be better equipped to trace the heritage of these attributes. I first arrived at these themes when conducting an analysis of advertising discourse in commercial audio publications for a previous project. Ads targeting a high-end clientele were generally positioned on values of knowledge, elitism, and masculinity, in contrast to mid-fi and lo-fi ads that tended to emphasize ease-of-use, social potential, and entertainment value. At the outset of this endeavour I was not intent on reusing these themes as I suspected they might have been the constructs of the mainstream industry rather than true audiophile preoccupations, however further research demonstrated that these concerns do originate with the high-end community and continue to dominate audiophile thought.

2.7.1 Knowledge/Skill

Apparent above is that audiophiles are not homogenous in their ways of thinking, yet one thing that is valorised amongst all enthusiasts is knowledge. While I have decided not to classify the subjects used in this analysis as golden ears and meter readers, Perlman's distinction is useful for illustrating the veneration of different types of knowledge in high-end audio culture. The objective/subjective approach is extended to the acquisition of cultural capital in audiophilia. 'Objective' knowledge favours scientific reasoning and engineering specifications whilst 'subjective' knowledge is based on experiential observations and trial and error testing. I believe that I will be able to trace the historic precedent of 'objective' versus 'subjective' knowledge back to the prehistory of audio recording, which I hope to demonstrate in the next chapter. For the moment suffice it to say that all audiophiles possess a wealth of information regarding equipment and modes of listening. The knowledge base of the audiophile is used to justify purchases as he invests labour in order to reclaim the commodity (Perlman, 2004, p. 802). Davis (2007) reasons:

> Acquisition rituals are specialized methods used to obtain artifacts of personal significance. Acquisition is the initial step in the transformation of an object from its profane, commodity state to one in which its sacred nature is revealed and celebrated. Practices of acquisition assist in the *recontextualization* of a common object chiefly by its removal from its location of origin and placement in new contexts that display its special nature (p. 229).

In high-end audio, object selection reveals a great deal about the purchaser. Cultural values are inscribed onto and become synonymous with the commodities themselves. Before an audiophile makes a purchase he must first immerse himself in information about the product. This is not to say that audiophile purchases are entirely rational, but

rather that the audiophile rationalizes his purchase. Joseph O'Connell (1992) explains the

audiophile's logic of justification like this:

> 1) The audiophile associates a certain cultural value with a piece of equipment;
>
> 2) Without reference to whatever cultural value it has for him, the audiophile argues that the equipment is justified on technically rational grounds – as the necessary means to a generally accepted goal;
>
> 3) The audiophile then implicitly concludes to himself and suggests to others that the cultural value he associated with the component is necessary and rationally justified (p. 12).

By equating technical value with cultural worth the audiophile is able to validate his

preferences. Moreover the reverse is also true, by associating a perceived technical

inferiority to a cultural good the audiophile can reject a product on rational grounds.

The audiophile accrues knowledge over time through his involvement in the high-

end community and through his own experience with his gear. Audiophile knowledge is

learned through participation and is not easily gleaned from books. A defining

characteristic of the audiophile is that he questions everything; there is no blind

acceptance of facts. This can be evidenced in the extensive letters sections in both *TAS*

and *Stereophile*.[xi] Readers regularly question positions taken by the contributors,

disparaging or raving about equipment reviews, or presenting 'discoveries' that they

believe will revolutionize high-end audio culture.[xii] Evident in these letters is a

compulsion to prove one's worth as an audiophile. Letter writing presents the hobbyist

with an opportunity to demonstrate that he is a valuable member of the community; that

he possesses the requisite cultural capital to participate in audiophile culture. It should be

noted that letter writing is not without risk. Both Harry Pearson and J. Gordon Holt

respond personally to many of these letters and neither is hesitant to castigate

contributors that they consider unworthy. For example Pearson begins a response to a letter that questions the integrity of reviews in *TAS*, "Your letter is insulting and snot-drivelling" and ends the same response "I certainly hope your mother loves you" (*TAS*, 5.18, 1980, p. 127). Whereas Holt, usually more temperate in his responses, calls out the author of a xenophobic letter by suggesting the writer would have better luck with the Ku Klux Klan (*Stereophile*, 8.4, 1985, p. 16). At one point Pearson even goes so far as to renege the subscription of a reader he feels is undeserving. The fear of ostracism from the community is made evident when the banished reader writes in withdrawing his complaint, begging forgiveness, and requesting that his subscription be reinstated (*TAS*, 8.31, 1983, p. 14-15).

Knowledge is crucial to membership in audiophile culture. In the following chapters I hope to trace what kind of knowledge is valued, how it is maintained, and how it is disseminated. I posit that the elusive nature of knowledge in audiophilia is one of the ways that outsiders (including, but not limited to, women) are prevented from infiltrating the culture.

2.7.2 Elitism/Superiority

In order to justify the expense of time and money the hobbyist devotes to audio technology he must rationalize that the returns match or exceed the investment. One of the ways that the audiophile differentiates himself from the masses is through the belief that he possesses superior listening skills. O'Connell (1992) notes, "in the realm of consumption, [superiority] sometimes involves simply outspending everyone else, but, in the case of HEA [High End Audio], such a crude approach is eschewed in favour of trying to demonstrate a greater *worthiness* to consume expensive objects" (p. 11). The

superiority of the audiophile's ear is tied to his leanings vis-à-vis knowledge and skill.

The audiophile will justify his acute hearing abilities either by presenting them as an

innate God-given gift, or by rationalizing that he has honed his skill through careful

practice and study. In either case the audiophile posits the authority of the golden ear as a

means of legitimating his pastime. In a 1985 editorial J. Gordon Holt defended the elitist

attitude of audiophiles, arguing that elitism is necessary for initiating progress. He

asserts:

> We Americans don't in fact *like* excellence, because it is so undemocratic. We prefer to believe that all people are created equal, and that the person who excels – who rises above the common herd of average, undistinguished nobodies – is a discomfiting reminder that some people *are* born with more success points than others (*Stereophile*, 8.1, 1985, p. 5).

For Holt, elitism is the driving force behind excellence. Holt maintains that a listener can

certainly attain musical pleasure from a sub-standard system, but audiophilia is more than

just a pleasurable musical experience, it is about sonic perfection. Since cost often

reflects excellence, expensive gear is justified as the primary focus of the audiophile.

Holt will not apologize for this; in fact he revels in it, noting, "quality costs, and the

highest quality costs the most" (*Stereophile*, 8.1, 1985, p. 6).

While elitism in high-end audio is certainly propagated by advertising I hope to

demonstrate in the upcoming sections that the roots of elitism can be traced to the

prehistory of audio recording. We will examine many reasons why such an attitude may

have developed, but perhaps the most important is connected to gender roles –

specifically the 19th century belief that high-art such as music appreciation is a male

domain.

2.7.3 Masculinity

It is often presented as a given that high-end audio is comprised predominantly of male enthusiasts (Douglas, 2004; Perlman, 2004; O'Connell, 1992). When I conducted my research into advertising discourse in *High Fidelity* in the birth of hi-fi era (1956-1966) it was apparent that masculinity was heavily brandished as a marketing tool. Though the techniques varied from the subtle to the blatant, masculine symbolism and language were commonly used to denote 'serious' products, while feminine imagery was widespread in ads flaunting entertainment value and distracted listening.[xiii] I was immediately curious as to why audiophilia should remain a chiefly male pastime in the more than hundred years since the birth of recording. In the following sections we will examine multiple reasons for the continued male exclusivity of audiophile culture, including gendered orientations towards listening, conflicts over domestic space, changing notions of the public/private divide, and resistance to mounting conformity in post-war America, but what I want to present briefly here is a discussion of gender inscriptions in mass culture.

In *After The Great Divide*, Andreas Huyssen (1986) argues that over the course of the 19th century mass culture became associated with the feminine while masculinity retained its equation with high culture. The male consumer was viewed as genuine, authentic, objective, and "in control of his aesthetic means," in contrast to the female who was passive, subjective, and a "consumer of pulp" (p. 46). The gendering of mass culture as feminine, and thus inferior, coincided with the development of recording technologies in the late 19th century. Audio technologies were an entirely new form of consumer item that was capable of taking a high art form and bringing it to the general public (Adorno,

2001). Men thus had to distinguish their engagement with these technologies from conventional uses in order to retain status. In *American Manhood*, E. Anthony Rotundo (1993) argues that leisure itself was associated with the feminine at the turn of the 20th century, especially when this leisure was experienced in domestic space. Leisure, play, and consumption all had to be ascribed masculine virtues such as reason, action, and independence in order to eradicate their feminine connotations (p. 263, p. 283). One way this predicament was resolved was to distinguish one's endeavour as a hobby rather than a mere form of entertainment. Kristen Haring (2007) argues, "Contrasted to idle recreation, hobbies were thought to keep participants busy with activities that led to personal betterment" (p. 1). Hobbyism suggested a critical pursuit, with potentially serious results. Homosocial activities, such as clubs and lodges were widespread toward the end of the 1800s. Rotundo (1993) notes that it was common for members of these organizations to write and perform plays or skits. "One of the insistent themes of these shows was the transformation into the 'lesser' people whom they excluded from membership – women and people of color" (p. 228). In this era men explicitly distanced themselves from 'the other.'

The belief that the male retains autonomy over "his aesthetic means" is particularly pertinent in audiophilia where active participation is valued above all else. Christa Wolf argues, "Aesthetics, I say, like philosophy and science, is invented not so much to enable us to get closer to reality as for the purpose of warding it off, of protecting against it" (In Huyssen, 1986, p. 46-47). In audiophilia aesthetic preferences help to insulate the culture from outsiders. The culture is founded on the idea of 'musicality,' a concept that seems to be purposefully ephemeral such that it can be re-

defined as needed to protect against new technologies and ideologies. In a 1982 editorial J. Gordon Holt presented a brief history of audiophilia, including its major controversies. High-end resistance is observed with the introduction of electrical recordings (1925), to the emergence of Full Frequency Range Response recordings (1944), to the debut of the LP (1948), to the appearance of digital records (1977), and to the CD (1982) – all of which were decried upon introduction on the grounds that they were "unmusical" (*Stereophile*, 5.3, 1982, p. 2-3, p. 18-19). At the time of Holt's writing, the CD was not even commercially available yet several years' worth of debate had already graced the pages of the underground press. In perhaps the best example of audiophile culture protecting itself from encroaching mass culture, Harry Pearson vehemently rejected the Compact Disc before ever hearing one (*Stereophile*, 6.5, 1983, p. 8).

Huyssen (1986) argues that the correspondence of femininity and mass culture has changed somewhat in the postmodern era, yet I believe that this is not the case in audiophilia. The primary philosophies of high-end audio have remained remarkably consistent in past decades, perhaps in part due to the almost complete exclusion of female participants. Huyssen notes, "The universalizing ascription of femininity to mass culture always depended on the very real exclusion of women from high culture and its institutions" (p. 62). The parallel between mass culture and femininity is crucial to the analysis of audiophilia as the entire culture is designed to defend itself against mainstream commercialization.[xiv] High-end audio is always positioned on ideals of active participation, versus the passive consumption of the mainstream consumer.

3: PRE-WORLD WAR II AUDIOPHILIA

3.1 A Hermeneutic Approach

Though audiophilia is commonly recognized to have emerged after the Second
World War (Keightley, 1996, p. 151; Taylor, 2001, p. 79; O'Connell, 1992, p. 4), it is my
contention that the roots of audiophilia can be traced significantly farther back. In this
chapter I want to examine some of the events and dispositions that may have contributed
to contemporary audiophile ideology. It is certainly not my intention to suggest a direct
cause-and-effect relationship between early preoccupations with sound and recording and
the habits of present-day high-end enthusiasts, but I think it would be equally erroneous
to intimate that audiophilia appeared on the scene as a fully defined pastime sometime in
the 1950s. In order to understand how a culture develops it is important to examine the
socio-historical conditions in which it formed. Here I am swayed by J.B. Thompson's
depth-hermeneutical approach. Thompson (1990) argues that a major flaw of much social
scientific research is that it treats texts and actions that are meaningful and worthy of
interpretation, or what he terms "symbolic forms," as if they are natural objects that can
be studied by objective analysis (p. 274-277). He maintains that the problem of
interpretation in the social sciences is different than in the natural sciences because
sociological inquiry deals with subjects who have invariably pre-interpreted the
phenomena that the researcher aims to interpret. Thompson asserts that subjects are
always entrenched in the social-historical conditions in which they reside, and that we
must uncover and analyze how these circumstances have influenced the participants (p.

274-277). Following a Bourdieusian logic in which neither objective nor subjective analysis alone is deemed adequate when examining social phenomena, Thompson argues that the researcher must be wary of two distinct yet related traps, which he terms "the fallacy of reductionism" and "the fallacy of internalism." The former occurs when the researcher prioritizes socio-historical conditions as the foundation of human action, while the latter results when the researcher fails to ground observations within greater societal structures (p. 291). For Thompson, depth hermeneutics involves three distinct phases: social-historical analysis, formal or discursive analysis, and interpretation (p. 281). Thus before we embark on any examination of audiophiles in their own context, that of high-end audio publications, we will first take note of some of the conditions in which recording technology was first developed and embraced.

3.2 Prehistory

In his book *The Audible Past*, Jonathan Sterne (2003) demonstrates that there was an augmented interest in listening and hearing prior the introduction of recording technologies. This newfound emphasis on auditory skill in the 19th century stemmed in large part from the rise of otology, a branch of medicine devoted to the study and treatment of the ear (p. 31). The subsequent development of the telegraph served to further affirm the importance of aural dexterity (p. 137). The significance of these non-reproductive acoustic technologies is not simply that they prompted experimentation that led to audio recording, but that engagement with these technologies was limited to certain groups, and certain methods of listening were cultivated that may have influenced the development of the culture that we would later recognize as audiophilia. Using Sterne's

prehistory of audio technologies as our guide let us examine how an early emphasis on

auditory technique may have influenced the reception of recording technologies.

First and foremost we must recognize that both medicine and telegraphy were

male dominated professions in the 19th century. This is imperative as one of Sterne's

fundamental arguments is that audio reproduction technologies did not result in new

modes of listening, but rather that certain "audile techniques" were already firmly

established (p. 138). However only specific portions of the population were exposed to

these audile techniques – both gender and class distinctions served to differentiate

experiences of sound and listening. Following Bourdieu (1984), Sterne argues that

listening becomes culturally embedded through a combination of learned and experiential

knowledge. He maintains:

> Listening involves will, both conscious and unconscious – perhaps a better word than *will* would be *disposition* or even *feel*. Orientations toward and styles of listening are part of what sociologists and anthropologists have come to call *the habitus*. Following Pierre Bourdieu, *habitus* denotes a set of dispositions, what he calls *a feel for the game*. The habitus is socially conditioned subjectivity; it combines all those forms of informal knowledge that make up social life. Habitus is a mix of custom, bodily technique, social outlook, style, and orientation. Because habitus is socially conditioned, social position and subjective disposition go together – each influences the development of the other. Industry, bureaucracy, science, rationalism, and the new middle class are all so central to the genealogy of audile technique precisely because techniques of listening represent dispositions articulated within a range of social possibilities (p. 92-93).

Because women were largely excluded from the professions that most impacted notions

of audile technique they were not privy to the same *habitus* as their male counterparts. It

is significant that these beliefs and practices around listening stem from the period before

audio recording and broadcasting as it meant that women and men approached these new technologies from divergent positions from the start.

However differing approaches to sound and listening did not only split along gender lines. The occupations that prompted this newfound interest in listening — medicine and telegraphy — attracted disparate practitioners and valued dissimilar methods and modes of listening. In the medical field listening was a technique that informed the physician as to the state of the human body. This form of audile technique was a professional occupation based on scientific knowledge and training, whereas the telegrapher tended to be self-taught and was considered a pioneer in his field. Sterne notes that doctors were trained to listen "but the telegrapher was a self-made auditor. Sound telegraphy itself was not handed down through textbooks and institutionalized training; rather, it developed as a result of workers' changing orientations to the machines that they used" (p. 138). We noted earlier that contemporary audiophiles tend to embrace one of two schools of thought: either they demonstrate a partiality toward science and measurements, or they privilege an instinctual, pragmatic disposition towards listening. What is of particular interest here is that the precedent of conflicting listening orientations, the unremitting objective/subjective dichotomy, may predate the appearance of the phonograph.

While approaches to listening varied in medicine and telegraphy, an important commonality was extant. Sterne notes that both stethoscope listening and telegraph transcription required "the construction of an individualized acoustic space around the listener" (p. 155). Both activities were deemed significant and important and required concentration and deliberation. Increased attention devoted to hearing likely led to the

audiophile's belief in 'serious' or 'focused' listening. The idea that serious listening is a solitary activity prevailed as headphones became the direct descendants of the stethoscope. While eartubes were not required for most forms of listening, they were preferred as they helped isolate the listener in his activity (Sterne, 2003, p. 87). A 1925 *Brandes* ad marketed to DXers[xv] reveals the preoccupation with individuated space, claiming:

> You *need* a headset
> - to tune in with
> - to get distant stations—both domestic and foreign
> - to listen-in without disturbing others; to shut out the noise in the room— and get all the radio fun
> - to get the truest and clearest reception always (Sterne, 2003, p. 88).

Prior to recording technology listening was comprehended as a technique; it was a serious skill with valuable results and segregated acoustic spaces were considered vital for immersing the listener in the sonic experience. These traits comprised a form of audile technique and were brought to the new technology by a select group of listeners. They continue to preoccupy high-end enthusiasts today.

3.3   Enter Edison

When Edison invented the phonograph in 1876, he designed it as a stenographic tool (Morton, 2004, p. 18; Millard, 1995, p. 37). While the phonograph intended for dictation never sold well (Morton, 2004, p. 22), it remains significant that those first exposed to the new technology were businessmen who were given the opportunity to develop certain orientations toward the technology prior to its introduction to the rest of society. Sterne (2003) notes, "Business use implied a business class, a well-educated,

well-funded, properly trained elite who would make 'proper' use of the new sound technologies" (p. 199). Thus a new group of mostly male, mostly white, mostly affluent individuals joined medical professionals and telegraphers at the helm of 'serious' listening culture.

In keeping with notions of documentation, early phonographs disseminated to the domestic market were capable of both recording and playing back sound. However, in deference to economic considerations, the home model was eradicated of its recording functions by 1896 (Morton, 2004, p. 22). Sterne (2003) argues that we should not think of sound technologies as arriving in the marketplace as unique technologies with distinct uses. Instead, we need to think of the social and economic relations that helped to define the role of each technology (p. 213). One factor that certainly influenced the direction of recording technology was the introduction of Emile Berliner's gramophone system in 1895 (Morton, 2004, p. 31-32). Unlike Edison's phonograph, the gramophone never possessed recording capacities (Kruse, 1993, p. 3). However the disc system offered several advantages. Due to the construction of the discs, which were made of plastic, the gramophone allowed for louder playback. Pressure from the stylus was proportional to playback volume and the plastic discs could withstand more pressure from the stylus than their wax counterparts (Morton, 2004, p. 34; Read and Welch, 1976, p. 122-123). Berliner's discs (or records as they came to be known by 1896) also allowed for mass pressing of a given recording and were more easily stored (Kruse, 1993, p. 3). This soon rendered the cylinder, a master of which could only create between 25 and 100 sonically degraded copies, obsolete (Morton, 2004, p. 27). However, while mass-pressings made the gramophone more commercially viable, it also diminished the distinction of owning

one. This may have prompted recording aficionados to develop new standards by which to measure their involvement in audio culture.

3.4 "Audiencemaking"

Berliner's technology soon dominated, but Edison adapted his product and remained competitive in the phonograph[xvi] market. Marsha Seifert (1994) argues that the rivalry between Edison's *National Phonograph Company* (*NPC*) and competitors such as Berliner's *Victor Talking Machine* resulted in "audiencemaking"[xvii] through advertising (p. 186-187). Advertising discourse in this era is fascinating because it reveals a great deal about how gender lines and class distinctions became defined with regards to audio. Millard (1995) notes that the transition of the phonograph from a dictation machine to a domestic device,

> opened up a vast new market, but it also raised a whole series of marketing challenges. The first was to convince prospective customers that the talking machine could indeed talk. Then came the job of persuading them that pre-recorded music was a desirable addition to their home life (p. 53).

While both Victor and the National Phonograph Company emphasized status in their ads, they did so in discursively distinct ways. The Victor brand emphasized European opera recordings in an effort to highlight the cultural potential of their product. Though recordings of opera accounted for less than 20% of overall Victor productions, the company featured opera singers in almost 50% of ads.[xviii] Seifert (1994) questions why opera was seen as a selling point despite limited sales of the genre. She argues that one explanation is that opera was endowed with much 'cultural capital' in this era in America

in light of the growing middle class and the promotion of 'higher' culture to this group (p. 195). She argues:

> Sound recording technology offered a democratic way to sow the seeds of culture and to preserve the social order. The hierarchy of cultural values was becoming concretized – literally – in the building of opera houses and symphony halls and other institutions. To those excluded by place and price, sound recording technology offered access, and yet it preserved social order both inside and outside the institutions of live performance (p. 195).

Thus for Seifert, recordings of opera offered the illusion of democracy while maintaining social stratification. The growing middle class could adopt an aura of superiority in the private domain while still being excluded from these activities in public settings due to the overwhelming cost of participation. Read and Welch (1976) note, "Victor relentlessly promoted its [opera] recordings as a magical alternative to attending a concert – 'No need to wait for hours in the rain'" (p. 62). While I agree with Seifert that Victor successfully targeted a lower class audience, I'm not convinced that the status quo was maintained between high and low culture. The democratic ideals evident in Victor's ad campaigns feminized heretofore masculine music appreciation, which I believe contributed to the foundation of an exclusive high-end audio culture.

The Victor Company's marketing strategy proved quite prolific. By including red paper labels on their opera recordings, which cost more than twice as much as a regular record, the *Red Seal* disc "had only to be seen and not heard to denote the elevated taste of its owner" (Seifert, 1994, p. 196). Here a visual indicator becomes more important than the recording itself, a fact that would likely have affronted the true connoisseur. Victor also broke new ground by including images of performers like Enrico Caruso in their print advertisements. Early records bore Edison or Berliner's mark, "but by 1907 the

inventor had been replaced by the opera star as the selling point of the record" (Millard, 1995, p. 61). The use of star power was unique at the time and was in sharp contrast to ads for the National Phonograph Company, which featured only images of Edison, when graphics were used at all[xix] (Seifert, 1994, p. 197-199). Here we see the paradox of 'good music' in mass culture (Adorno, 2001). Marketers and advertisers recognized the value in offering high culture to the public, yet the way it was presented had the effect of feminizing the product. The use of celebrities in advertisements further sullied the recording in a Nietzschean sense. Nietzsche agued, "The danger for artists, for geniuses… is woman: adoring women confront them with corruption" (In Huyssen, 1986, p. 51). By packaging recording stars in this way, Victor exposed high cultural celebrities to the accolades of women, which diminished their authenticity and thus their high cultural worth.

In 1906 the NPC responded to the Red Seal records by releasing their own *Grand Opera* recordings (Seifert, 1994, p. 199). The Grand Opera recordings were priced lower than Victor's Red Seal discs but had trouble attracting consumers and by 1909 Victor dominated the phonograph market. One reason that Victor overtook the NPC is that Victor seemed to recognize the importance of appealing directly to women in order to sell products.

3.5 Feminizing the Phonograph

From its introduction the major phonograph manufacturers were faced with the challenge of getting the phonograph accepted into the average home. Edison's cylinder was introduced at the end of the Victorian era when the formal 'parlour' still reigned over the modern 'living room.' The parlour was a ceremonial space never meant for mass

entertainment. Holly Kruse (1992) discusses the place (or lack thereof) of the phonograph in the Victorian home. She notes, "From the outset, the phonograph was not only viewed as unsuitable for in-home use because it was a mass amusement, but it was seen, quite simply, as a technological eyesore" (p. 11). Here we see two major obstacles that needed to be overcome. In this era, and continuing well into modernity, women were in charge of most household purchases. Scanlon (1995) notes, "Women were the purchasing agents in the nation's homes. In the 1920s, researchers estimated, women purchased at least 80 percent of the total goods accumulated in families" (p. 171). Specific to audio technology, a 1919 survey conducted by *Talking Machine World* noted that women selected more than 75% of phonographs. William Howland Kenney states, "Although they often stepped in to make the final transaction when buying the more expensive phonographs, most married men overwhelmingly deferred to their wives' phonograph suggestions" (In Barnett, 2006, p. 312). Considering the tremendous authority accorded to women in household commodity selection, it becomes clear that advertisers had to market phonographs to the specific desires of women. In meeting these needs, manufacturers sometimes had to change the design of the technology itself. Aesthetics became a primary concern and great pains were taken to transform the phonograph into an acceptable piece of furniture (Barnett, 2006, p. 309).

From 1901 Victor seemed to realize the importance of a visually pleasing phonograph. Unlike Edison's device, which was designed for portability due to its recording capabilities, Victor's talking machines were intended to be stationary. Perhaps because it was designed for communal living space the Victor company refrained from "plastering florid decalcomania scrolls across the front of its machines," in contrast to

both Edison and Columbia (Read and Welch, 1976, p. 179). But their greatest advance

(or sacrifice depending on your point of view) came in 1906 with the release of the

Victrola. Prior to that year, phonographs were recognizable by their great horns. Some of

the earliest phonographs used eartubes but horns provided an advantage in that they were

beneficial for entertaining (Read and Welch, 1976, p. 179). Different types and sizes of

horns were available, from wood to brass to glass and aluminium. As horns were

responsible for a great deal of the overall sonic quality, their design was in a constant

state of flux. Horn selection is an early example of how aficionados could become

involved in the sonic output of the phonograph. However horns began to get bigger and

more obtrusive, likely resulting in the backlash against them (Read and Welch, 1976, p.

179). In an effort to make the horn more aesthetically pleasing Read and Welch (1976)

note that some horns were painted to resemble flowers or were otherwise adorned.

Unfortunately, decorating "the already too conspicuous horn served only to further point

up its essential discordance with the home environment" (p. 180). The Victrola concealed

the horn making it more visually pleasing by placing it inside a cabinet (Thompson, 2002,

p. 237). Yet while the beautification of the phonograph may have made it more

commercially viable, it was understood by many to be a compromise between form and

function (Barnett, 2006, p. 301). Designing a horn to fit within a restricted cabinet space

resulted in acoustical deficiencies. For those interested in sound, the emergence of the

Victrola "represented retrogression rather than progress" as tone quality took a backseat

to aesthetic concerns (Read and Welch, 1976, p. 180-181).

In this period we see evidence of men beginning to distinguish their engagement

with phonography from that of women and children. In 1921 Robert Schauffler, an early

audiophile and writer for *Collier's*, distinguished three types of phonograph users:

> 1. Those who want 'something' - anything to make a noise for children and young people.
>
> 2. Those who want a good-looking piece of furniture. (It is said that three women out of five use their eyes more than their ears in shopping for a phonograph.)
>
> 3. Those who really care for music (in Kruse, 1992, p. 12).

What is especially significant here is that Schauffler is careful to expound upon his

second point so that it is clear he is referring to the fairer sex. Schauffler considers the

first two practices less legitimate than the third, which is more authentic and rational, and

gendered male. Kruse (1992) comments on Schauffler's statement, noting:

> Not surprisingly, these 'naïve' uses of the phonograph are associated with two femininely-gendered domestic tasks: child care and decorating. Devaluation of alternative practices devised by women in order to evade patriarchal control in some small way is nothing new, and this particular example points to the way women traditionally have been negatively linked to mass culture in general (p. 12).

Anti-mass sentiment is perhaps the most obvious bias in contemporary audiophilia. While

Huyssen (1986) notes that mass culture was largely associated with femininity in the

early 20th century, Victor's explicit targeting of feminine desires made audio

technologies particularly contentious. Read and Welch (1976) argue:

> The important fact concerning the Victrola is that it enabled the establishment of a style trend backed by the power of Victor advertising and prestige. It was this style trend and not technical excellence that forced the other companies to abandon the use of external horn machines (p. 187).

Women, thus, were seen to have corrupted the technology in favour of aesthetic concerns, while the mainstream audio industry became synonymous with compromise. The correlation of femininity and massification helps to explain the exclusion of women from audiophile culture, while also providing a reason that high-end enthusiasts denigrate mass-manufactured products no matter their sonic accuracy.

It should be noted at this point that while the phonograph was transformed into furniture, not all models were equivalent. There was a great deal of stratification with phonograph models in the teen years, from high end "period models" that could cost thousands of dollars, to "no-frills" models geared towards the masses (Kruse, 1992, p. 4). Barnett (2006) even goes so far as to maintain that while the phonograph was feminized, discussion of cabinets in the male domain continued to be split according to gender connotations. Craftsmanship became the watchword. Barnett argues that this emphasis on superiority was "another sign of male mastery that avoids crossing over into what has historically been seen as the feminized domain of interior design" (p. 316). By stressing craftsmanship and cost, the enthusiast was able to demonstrate his superior taste, while suggesting that those too poor or ignorant to value these qualities were less dedicated to audio excellence. In radio too, elitism was related to cost. Douglas (2004) notes, "while a crystal set with a 20-mile range cost between ten and twenty-five dollars in 1924, a three-tube set with a range of up to 1,500 miles ran anywhere from one hundred to five hundred dollars" (p. 70). Here superiority is related to technical power. The enthusiast who spent more on his gear could rationalize that his involvement was greater than that of his subordinates.

Interestingly, while both women and men were addressed as consumers of the phonograph, discourse in this early era was already divided along gender lines. Scanlon (1995) argues that market segmentation was not a common promotional technique until after the Second World War (p. 197-198), however audio advertising seems to have been an exception to this rule. Barnett (2006) observes that articles in women's magazines eschewed the technical aspects of phonography altogether. He summarizes a 1918 article in *The New Country Life*: "Like the automobile, the author argued, the phonograph should no longer be judged on the basis of its mechanics, which it had been traditionally in the pages of science and technology magazines, but on its aesthetics" (p. 311). Barnett then compares this to the treatment of the phonograph in magazines aimed at men, noting:

> While the appeals to class desires and anxieties were similar to the discourse in women's press with its emphasis on the phonograph's potential for cultural upliftment, the means of convincing men of the benefits of phonography were based on this device's technological superiority, even in its new role as furniture – and by association, the technological mastery they as males could acquire and exhibit as initiates to the phonograph's new changes (p. 314).

That audio technologies were treated in discursively distinct ways in men's and women's magazines affirms Sterne's assessment that men and women were in possession of different *habitus* and audile techniques. Different listening dispositions seem to have been inherent in the population, prompting the industry to market audio technologies along consistently gendered terms.

Another tactic devised by advertisers to make the phonograph more attractive to women was to demonstrate its educational potential. At the turn of the 20th century mass-entertainment was associated with the public, thus male, domain. The phonograph was

one of the first technologies to obscure the distinction between the public and private

spheres. Barnett (2006) contends, "the woman of the middle-class home was the

custodian of family life and culture, the guardian of the family's moral life. The

phonograph, therefore, had to function as an edifying and educating device, and not mere

entertainment" (p. 309-310). In an attempt to resolve this tension phonographs were

presented as cultural tools. Holly Kruse (1992) observes that appeals were designed to

target mothers, who sought to expose their children to art and culture. She notes:

> Popular discourses assigned to women central roles in negotiating the
> transition between mass-produced entertainment and the sanctity of the
> home, and mothers specifically were placed in the middle of the conflict.
> The Victorian wife and mother had been charged with the moral and
> intellectual upbringing of the children, as well as with surveillance of
> matters of taste and culture (p. 8).

We saw above that manufacturers emphasized the high cultural potential of the

phonograph by touting opera recordings. *Red Seal* and other operatic recordings played

into the educational nature of the phonograph. In 1912 Victor even published its *Book of*

Opera as a handbook for mothers (Kruse, 1992, p. 9-10). But this discursive tactic was

not without conflict. Traditionally music was experienced in the public domain, and

connoisseurship was associated with masculine culture. However the educational nature

of opera recordings and their subsequent acceptance into domestic space by Victorian and

modern women may have chipped away at the notion of music appreciation as a male

pastime. The democratization and massification of a high cultural activity may have

forced men to alter their practices in order to retain a role in music appreciation. I will

suggest in upcoming sections that one way men distinguished their experiences with

recordings from those of women and children was to accord increased significance to the

technology itself. This may have been influenced, directly and indirectly, by advances in radio technology that were occurring in this same era.

3.6 Tone Tests

Before we consider how involvement with radio may have affected male experiences of audio technology, I want to examine one more discursive strategy found in early audio advertising. Almost from their inception, audio technologies were advertised based on ideas of fidelity to the original. For example a 1908 Victor ad asks, "Which is which? You think you can tell the difference between hearing grand-opera artists sing and hearing their beautiful voices on the *Victor*. But can you?" (Sterne, 2003, p. 217). The question clearly suggests that the discerning listener will not be able to make the distinction. However, we noted above that while Victor's ads may have evoked notions of fidelity to the source, the company was more concerned with visual design. By contrast, Edison's goal was the "exact reproduction of the original sounds" (Read and Welch, 1976, p. 205). In response to Victor's records, Edison devoted a great deal of time and energy to the development of his *Diamond Disc Phonograph,* a system designed to be more sonically accurate than any other (Read and Welch, 1976, p. 200-1). Starting in 1915 Edison began a new marketing campaign by conducting 'tone tests,' which challenged audiences to differentiate between the recorded sound played on his Diamond Disc Phonograph and the live experience (Thompson, 2002, p. 237-8). Tone tests were conducted in music halls to vast audiences and involved a singer or musician performing in unison with the phonograph, starting and stopping intermittently to allow the audience to marvel at the incredible reproductive capacities of the Diamond Disc system. Read and Welch (1976) describe the events:

> A startling climax was provided when during the latter part of the program the stage would be darkened, ostensibly so that the auditors could guess as to when the artist was singing and when not. Suddenly the lights would come on revealing that the singer was no longer on the stage (p. 203).

To our contemporary minds it seems unfathomable that entire audiences could be persuaded to believe that the sound from the phonograph was identical to the live performance of a celebrity, yet critics "were uniformly generous with their praise of Edison's great accomplishment" (Read and Welch, 1976, p. 203-5). Perhaps the acoustic properties of the concert halls in which the tests were performed contributed to the overall sonic quality, though the reasons why the tone tests succeeded are less important here than their overall effects. This type of ad campaign encouraged listeners to actively compare the output of different playback devices, a ploy that seems to have become culturally embedded, such that by the late 1920s the term "high fidelity" was being adopted by manufacturers and consumers alike to denote superior sound quality (Morton, 2004, p. 94).

While both Victor and the NPC called on notions of fidelity in advertising, just as both referenced opera recordings, I would like to suggest that the experience of witnessing a 'tone test' in a live venue elevated the concept of the discerning listener. For one thing the concert hall setting in which these tests were performed made the process less democratic as only the affluent could afford to attend such a presentation. Moreover since these tests were performed in public forums, the traditional domain of the male, they may have resonated with the modern gentleman, whose position vis-à-vis music appreciation had recently been called into question. Thus an interesting dichotomy existed between the advertising strategies of two of the leading phonograph manufacturers. The Victor Company took great pains to appeal to the housewife. They

were the first to adapt the phonograph so that it more closely resembled a piece of furniture, they were the first to employ images of stars in their ads, and they went out of their way to emphasize the educational potential of the device for children. On the other hand, the National Phonograph Company's history seems to emphasize recording and playback quality. Edison first launched his phonograph as a business tool, and even when that did not succeed, the recording capabilities of the cylinder were maintained until it was no longer financially viable to do so. In this way the cylinder afforded more agency to the user. The NPC's early ads were smaller and less flashy and were largely based on notions of clarity and fidelity rather than star power (Seifert, 1994, p. 197-199). While ads for the Diamond Disc Phonograph did employ recording artists, Edison did not list the artist's name on the record itself. Read and Welch (1976) note, "for some unfathomable reason he decided that the labels of the new disc records should not carry the name of the artist" (p. 201). While I have no firm evidence to support a claim that this may have been Edison's response to the blatant reliance on celebrity by Victor, it is a plausible proposition. Millard (1995) argues, "Edison, for one, thought the emphasis should be on the quality of the recording rather than the reputation of the singer" (p. 62). I am not suggesting that the NPC specifically targeted male enthusiasts, but simply that some ideological stratification is already apparent even in the first couple of decades of phonography. Victor's discursive strategy may have been more democratic, targeting a mass audience by appealing to women, while the NPC was less concerned with aesthetics, positioning itself more on ideals of sonic accuracy.

3.7 Early Radio

3.7.1 Technical Hobbyism

The period from 1906 to the mid 1920s was an important era in the development of critical listening. While the major phonograph companies were engaged in a battle based on sound quality, radio enthusiasts were busy tuning in to far-off stations. Hobbyists started tinkering with radio, then known as 'wireless telegraphy' as early as 1906 (Douglas, 2004, p. 59). That radio technology became available to enthusiasts in the same year that the phonograph was turned into a piece of furniture by the Victor Company is likely a coincidence, however involvement in radio hobbyism may have provided a welcome alternative for early phonograph aficionados frustrated by the feminization of the technology. Unlike the phonograph, which was purchased as an assembled product, radio amateurs needed to build their own sets in order to be involved. Kristen Haring (2007) notes that early radio kits "were even less than boxes of parts" (p. 68-69). Only pieces that were difficult to build or near impossible to find were included. Haring describes involvement in amateur radio as a "technical hobby" (p. 2-3). A technical hobby is not simply about the use of a technology; rather the technology must motivate the pastime. Technical hobbyism emphasizes activity and "learning by doing" (Haring, 2007, p. 10). By this definition early audiophilia is not a technical hobby, though later perfectionist audiophilia can be classified in this way. Interestingly hi-fi kits did become available in the 1940s and 50s (Keightley, 1996, p. 151), probably inspired by the hands-on ethic of amateur radio. Radio hobbyists spent hours producing their own messages and searching the ether for commercial or military communications, which were coded until 1919 (Douglas, 2004, p. 51). As radio was largely undefined in this

period, hobbyists were responsible for many user-driven innovations. This empowered the enthusiast and validated the pursuit as a serious activity with real consequences. In my examination of audio publications it was common for letter writers to suggest that they had discovered the reason behind a heretofore-unexplained sonic phenomenon. It is likely that the audiophile's belief that his activity is more than mere entertainment stems from this era when amateurs regularly uncovered advances.

3.7.2   Masculinity in Early Radio

In the era before commercial broadcasting, engagement with radio was a predominantly male activity. This is partially due to the technological knowledge required for participation. In order to become a ham operator a license had to be obtained which involved a detailed examination on Morse code, radio regulations, and mechanical theory. Haring (2007) notes, "To become an amateur radio operator required considerable skill, machinery, and time" (p. ix). Until the mid-1920s most kits did not come with instruction manuals, thus participants needed to rely on their own ingenuity as well as articles published in newspapers and magazines for indices as to how to get their gear to work (Douglas, 2004, p. 68). Technical knowledge was increasingly valued as radio gained popularity. In a 3-year period in the 1920s radio manufacturers increased from 30 to 5,000, resulting in many faulty kits. Familiarity with manufacturers, parts, and repair services thus became important (Douglas, 2004, p. 69). While contemporary hams claim that the culture is open to all those with the requisite knowledge, amateur radio remains a predominantly male activity. The demographic of radio hobbyism is remarkably similar to that of audiophilia, comprising of an overwhelmingly male, middle to upper class, educated, and white membership[xx] (Haring, 2007, p. xii). Haring (2007) points to the

gender connotation inferred as hams often reflexively refer to themselves as a "technical fraternity" (p. xi-xii).

We must consider some of the reasons that radio hobbyism became a male dominated pastime. For one thing, early radios were not aesthetically pleasing (Douglas, 2004, p. 69). Neither the gear nor the listening experience itself was facile. In an era when phonographs had to be relegated to cabinets in order to be accepted into the home, it is not difficult to see how a crystal set complete with exposed and often smelly and leaky batteries would be an unwelcome addition to the primary living quarters (Douglas, 2004, p. 69-70). As the Victorian era transitioned into modernity conventional notions of individuated spaces were replaced by architecture and design that emphasized communal living. Keir Keightley (1996) argues that architectural changes in houses starting in the 1870s and proliferating through the post-war period emphasized more open floor plans and ideals of family 'togetherness' as opposed to spaces intended for exclusive use of one family member (for example the study was traditionally the private space of the male head of house). This "discourse of togetherness also produced a backlash or counter-discourse of entrapment, involving expressions of desire for privacy and autonomy" (p. 153). For the man of the house, tinkering with radio may have offered a symbolic way to reclaim a space of his own. Aesthetic considerations, combined with the fact that radio hobbyism also caused interference with television and radio receivers, meant that men and women generally agreed that the activity warranted its own area (Haring, 2007, p. 119). Haring (2007) argues that women controlled the allocation of space in the modern home. The public areas, such as the living room and kitchen, were gendered feminine, while unadorned spaces such as basements, attics, and garages were considered

masculine (p. 138-139). Consequently, hobbyists were often expelled to the extremities

of domestic space. In building his radio "shack" the enthusiast gained a sense of

independence and carved out a small private area within the home (p. x). The radio shack

was both connected to and apart from domestic space. Haring maintains, "Specialized

hobby areas accomplished something socially for hams as well. The privacy of shacks

signalled hobbyists' membership in a community defined outside of the home, facilitating

hams' development of identities apart from family roles" (p. 136).

3.7.3   Community

Unlike audiophilia, amateur radio involves a two-way communication. DXing, the

search for far distant stations, was the primary activity of these early hobbyists. DXing

was not for the impatient. Susan Douglas (2004) describes the experience:

> Painstakingly moving a thin wire known as the cat whisker around a hunk
> of crystal, they heard a blend of talk, music, and static as their heads
> became filled with the voices and sounds of nearby and far-off places.
> Others, usually those with more money, had sets with tuning dials—five
> of them—all of which had to be perfectly calibrated to reel in particular
> stations (p. 55).

DXing required concentration and determination. It was generally carried out using a

headset and while it did not lend itself well to companionship, the entire act was

dedicated to the pursuit of communication. While audiophilia does not entail the

transmission of messages in the same way as radio hobbyism, both activities offer the

opportunity for individual and social engagement. Radio hobbyists, like audiophiles,

maintain a relationship with other enthusiasts through newsletters, hobbyist clubs, and

magazine subscriptions. Specialty radio magazines like QST[xxi] and CQ have been in

publication since 1915 and 1945 respectively (Haring, 2007, p. xvi). While amateur radio

is a federally regulated activity, the community takes great pride in policing its participants. Early communities of hams "set conditions for membership, established rules of conduct, taught values, and developed a specialized vocabulary known only to insiders" (Haring, 2007, p. 19). We see a similar aspiration in the audiophile press, which also tries to set requisites, extol values, and suggest rules of conduct. Moreover the development of a specialized vocabulary for discussing sound is a preoccupation evident in both *The Absolute Sound* and *Stereophile* (*TAS*, 4.13, 1978, p. 12; *TAS*, 4.16, 1979, p. 497; *Stereophile*, 4.9, 1981, 23).

3.7.4 Ham Operators

The idea of the hobbyist hero is probably best evidenced in the "ham"[xxii] operator. Though ham activity has been increasingly regulated since *The Radio Act of 1912*, which required amateurs to obtain licenses and limited transmission to waves below 200 meters, the hams must be recognized with some of the greatest advances in radio broadcasting (Douglas, 2004, p. 60). Susan Douglas (2004) credits ham operators with the discovery of the value of shortwaves, and the development of equipment that requires less power and bandwidth to function, even over greater distances. She notes:

> The hams have a totally different relationship to the technology of radio and the forces of nature than do the rest of us. They have constantly experimented with wavelengths and found, for example, that 40 meters (7 megahertz) achieves worldwide propagation at night and up to 1000 miles during the day. Twenty meters (14 megahertz) offers excellent worldwide communication even during the day (p. 331).

Hams were able to communicate with people over vast distances long before the introduction of the Internet. Some ham operators have even communicated with astronauts in space (*Ibid*.)!

But the heroic conception of the ham hobbyist is a consequence of more than his role as innovator. During the First World War thousands of hams were recruited by the military due to their technical skills, while others donated their gear to the services. Kristen Haring (2007) notes, "During World War I, the enlistment of hobbyists was critical because almost no one else had experience with radio transmission" (p. 96). Ham activity is thus accorded more status than the average hobby. Hams have been able to call on their alliance with the armed forces in order to validate their activities and have continuously battled the establishment to retain public access to certain frequencies. Moreover they present themselves as a form of auxiliary communicatory unit capable of stepping up in the event of an emergency (Haring, 2007, p. 95). By positioning radio hobbyism as a critical activity requiring technical mastery, and through the association of the ham operator with the military, amateur radio fed the notion that the hobby is a male pursuit (Haring, 2007, p. 96). The ham operator as warrior is a discursive technique that separates his endeavours from users of mainstream radio.[xxiii] Hams embody the idea of the "expert user" (Lindsay, 2003, 38), a perception that may have influenced contemporary audiophiles. Their persistence despite increased constraints is reflected in the audiophile's suspicion of the mainstream audio industry, and their resistance to new technologies that limit user engagement with the musical output.

It is interesting that audiophilia and early radio share a number of preoccupations considering that the goal of the DXer and the Ham was not music at all. Yet by underlining a technological substrate, the amateur found an outlet over which he could take control. If phonography was becoming increasingly feminized in this era, radio hobbyism offered a masculine alternative. As with later audiophilia, a great deal of

emphasis was placed on information acquisition and on the customization of one's gear. Susan Douglas (2004) argues that this was a response to changing notions of masculinity in modern times. She asserts:

> Tinkering with radio (like tinkering with cars) was one way for some boys and men to manage, and even master, the emerging contradictions about masculinity in America, especially as some of them found themselves spending their increased leisure time at home. For a growing subgroup of American boys, these vivid yet often conflicting definitions of manhood and success were resolved in mechanical and electrical tinkering. Trapped between the legacy of genteel culture and the pull of the primitivism so popularized in the new mass culture, and certainly trapped between the need to conform and the desire to break out, many boys and men reclaimed a sense of mastery, indeed of masculinity itself, through the control of technology (p. 68).

While we have discussed adult male involvement with audio up to this point, Douglas' assertion that boys were increasingly involved with radio hobbyism deserves some consideration. By the late 19th century men began to fear the feminization of American culture. E. Anthony Rotundo (1993) argues, "men bemoaned women's dominance in the process of raising male children" (p. 252). Thus radio became an outlet through which men and their sons could bond. Because the radio shack was designated a masculine workspace, fathers and sons were able to retreat from the hubbub of everyday household activities. Haring (2007) argues, "The physical isolation of a technical hobby could draw curious sons near to fathers" (p. 139). Technical hobbyism was thus touted for its educational capacities. In an effort to appeal to the youth of the day, books such as "The Radio Boys" and an adventure series entitled "The Wireless Man" appeared in this era (Douglas, 2004, p. 68-71). Starting with World War I and proliferating after the Second World War, radio hobbyism was considered an important activity with the potential for

national security and we will see in the next chapter how communism and the nuclear age contributed to the idea that boys should engage in amateur radio.

The affirmation of masculinity through technology was soon challenged as radio became commercialized. By 1925 program listening took over as the most popular radio pastime (Douglas, 2004, p. 78-79). It is not difficult to see why DXers would be upset at the usurpation of the airwaves by broadcasters. Nor is it a far reach to appreciate how the preference of program listening by women and the lower classes would intensify the stratification between the hobbyist and mainstream listeners. But we should not be led to believe that the commercialization of radio stunted ham activity. As we will see, radio hobbyism continued to rise both in participation and in importance after World War II.

3.8 After the Boom

After the initial boom of the teen years both audio playback technologies and radio suffered a period of uncertainty. Radio tinkering, an activity that was highly regarded during the First World War, increasingly gave way to commercial broadcasting, even as this new radio format was considered a serious threat to the recording industry. The discord was so great in the early 1920s that Victor refused to incorporate radios in Victrolas (Kruse, 1992, p. 4). In an effort to stay competitive in the changing market Victor introduced the "orthophonic," or electrical, phonograph in 1925 (Kruse, 1992, p. 4-5). The Victor Orthophonic used microphones and amplifiers in place of the recording horn and allowed for multiple microphone outputs to be mixed together into a single signal, which meant that larger groups could now be easily recorded (Morton, 2004, p. 66). While the electrical phonograph was generally regarded as a positive innovation, Holly Kruse (1992) notes, "Though most listeners praised the improved fidelity of

electric recording, some complained of exaggerated sibilants and annoying twangs" (p. 5). Here we witness an instance of resistance to commercially prescribed change. Early audiophiles rejected electrical recordings on the grounds that they were "unnatural" (O'Connell, 1992, p. 32). It is not entirely clear whether these aficionados were truly bothered by the sound or whether it was change itself that prompted this opposition. One has to wonder if the reception of the electrical phonograph was influenced by the fact that Victor, the company known to compromise sound quality for the sake of convenience, initiated the change. Ultimately though, certain behaviours made possible by the electrical phonograph would become embedded in audiophile culture. The electrical record player allowed for the kind of dial twiddling prominent in amateur radio, offering the user more agency over the output of the sound.

The 1930s were not kind to the recording industry; the Great Depression combined with the rise of commercial radio led record sales into a downward spiral. American record sales fell from $75 million in 1929 to $6 million in 1932 (Morton, 2004, p. 91), and many manufacturers, including Edison's organization, went under. Millard (1995) notes that the blame cannot be placed entirely on the Depression. In the teen years there was a sudden increase of recording manufacturers from 18 in 1914 to 166 in 1918 (p. 72), resulting in a market that was susceptible to collapse. While radio sales also fell the slump was less dramatic and involvement in radio hobbyism actually grew during this period. In 1934 there were 46,400 licensed amateurs in the United States, compared with 16,800 in 1929 (Douglas, 2004, p. 335). It is likely that tinkering with radio gave the amateur a sense of purpose amidst the economic and social uncertainty of the era. Susan Douglas (2004) notes that the relief efforts of hams associated with several natural

disasters including a 1931 earthquake in New Zealand, the 1933 earthquake in California, and a 1931 shipwreck off the coast of Newfoundland "prompted many of the hams to think of themselves in public service terms, as an army in reserve who needed to train to be in a constant state of preparedness" (p. 335). Radio hobbyism could fill the void of unemployment while escape to the radio shack allowed the amateur to secede from shared domestic space.

In their struggle to stay alive in the 1930s, the major manufacturers turned their attention to the classical music market (Morton, 2004, p. 92). Innovative hardware with high price tags, such as an automatic record changer, was promoted to the high-end consumer. Sound quality was increasingly a point of emphasis and noise reduction devices were designed to improve the sonic output of the phonograph (Morton, 2004, p. 92-93). The high-end market was thus considered a salvation in precarious economic times.

One resounding effect of the shake-up that took place in the 1930s was the consolidation of many of the major players. Victor was integrated with RCA, while Columbia became a part of CBS (Morton, 2004, p. 91). Millard (1995) notes, "By the end of the 1930s, the companies involved in making talking machines and records were no longer independent organizations devoted to recording sound but parts of larger businesses that embraced several technologies and manufactured several kinds of products" (p. 175). Thus while the major manufacturers were devoting more attention to the connoisseur, the diverse interests of the companies involved in recording may have made potential consumers sceptical of their motives. Prior to consolidation we noted that enthusiasts were suspicious of companies that appealed to the masses, thus the

amalgamation of many companies into a few may have furthered the enthusiast's preference for small-scale autonomous manufacturers and handcrafted products.

3.9   Early Influences Summarized

While the culture of audiophilia did not manifest itself in a tangible form until the 1950s I believe that an examination of the early audio era demonstrates that certain audiophile dispositions stem, either directly or indirectly, from events that transpired prior to the Second World War. Before moving on to an analysis of audiophilia in the post-war era allow me to summarize how early experiences of sound and listening may have contributed to the development of audiophile culture.

Commencing with the pre-history of recording we saw how an early interest in hearing and listening was rooted in male-dominated professions. Early association with audio technologies was experienced in medicine and telegraphy, and later in business with the introduction of Edison's dictation device. The narrow demographic exposed to audio technologies in this period allowed these individuals to cultivate a discrete posture towards listening. These audile techniques were firmly established by the time reproductive and broadcast technologies were made commercially available. A select group of users thus came to these technologies with a distinctive habitus. Both women and the lower classes were excluded from this culture, a feature that would be exacerbated as femininity was increasingly correlated with mass culture, the heinous 'other' that must be resisted at all costs.

Intrinsic to this unique disposition was the notion that listening required an individuated acoustic space. Stemming from medicine and telegraphy, which required

silence for interpretation, early audio hobbyists demonstrated a preference for isolated listening conditions. Eartubes and headphones were the natural descendants of the stethoscope, which lent an impression that the auditor was engaged in a 'serious' or 'focused' pursuit. Though headphones were soon forsaken in music listening, as horns were capable of reproducing better sonic quality, hobbyists never lost the conviction that their activity was significant. The pioneering work of amateur radio enthusiasts lent credence to the notion that hobbyism was dissimilar from entertainment in that it could have vital repercussions. The contention that listening was an exclusive activity allowed men to carve out a niche in increasingly collective domestic spaces. At the same time the severance of audio hobbyism from the central areas of the home may have contributed to the philosophy that the activity was a male pursuit.

While gender distinctions derived in part from certain audile techniques, these divisions were intensified by media discourse and advertising campaigns. We noted how like technologies were treated in markedly dissimilar modes in men's and women's magazines. Publications geared towards women emphasized the aesthetic and educational aspects of audio technologies, while periodicals aimed at men tended to stress the technical and scientific qualities of phonography and radio. Perhaps the largest gender rift was aggravated by the feminization of the phonograph largely attributable to manufacturers such as Victor, who compromised sound quality in the name of aesthetics. The inscription of gender on audio technologies in an era when mass culture in general was taking on a feminine stigma caused a specific subgroup of consumers to rebel. For the audio enthusiast, the correlation of the feminine with massification meant that both were to be shunned. Yet if Victor feminized the phonograph then Edison's contribution

was to posit sonic excellence as the end goal of audio reproduction. With this partiality toward sound quality we see early ideas of high fidelity.

Also evident at this time is that fidelity was not uniform but rather was related to cost. Enthusiasts conceived of themselves as superior to mainstream consumers, which could be demonstrated through the articulation of knowledge and skill or through the acquisition of luxurious gear, though preferably through both. Edison once famously said, "There is no family so poor that it cannot buy a talking machine" (in Millard, 1995, p. 54). However these democratic ideals were put forward for the benefit of the lower classes. Phonograph models were designed along a continuum, and connoisseurs displayed their superiority through the acquisition of finer models.

The concurrence of the feminization of the phonograph as marked by the appearance of the Victrola and the emergence of radio tinkering in 1906 may have resulted in a privileging of technical knowledge in male audio culture. Knowledge could be either learned or intuited, two listening orientations that can be traced to the prehistory of audio recording when telegraphy emphasized an instinctual, natural disposition towards listening versus the learned, scientific orientation prevalent in medicine. In either case listening is regarded as a skill, rather than an innate capacity. In order to hone one's skill the enthusiast needed to maintain an active stance toward audio technologies. Learning through trial and error as well as through communication with like-minded enthusiasts was imperative to the development of the critical listener. Precursors of tweaking are evidenced in this era as enthusiasts took great pains to evaluate and select different speaker horns, and radio amateurs modified their gear.

Agency was also valued in another way. Ham operators used their authority as 'expert users' to resist encroaching federal regulations. The reflexive identification of the audio enthusiast as an expert user is significant, as he feels empowered to oppose changes to the technologies he utilizes. In order for these skilled hobbyists to wield any degree of influence they had to join forces in collectives. Hobbyist communities were maintained through clubs and magazine subscriptions and were thus able to share information and ideas and band together when necessary.

4: POST-WORLD WAR II AUDIOPHILIA

4.1   The War and Agency

The Second World War precipitated a cultural shift in attitudes toward technology. Soldiers often received technical training for combat, giving them a new appreciation and understanding of science. Joseph O'Connell (1992) argues that contemporary audiophilia began after World War II due largely to skills acquired in the military and exposure to better European equipment (p. 4). In addition to an increased interest in recording technology, over 2 million radio technicians were trained during World War II (Haring, 2007, p. 96). Early high-fidelity enthusiasts valorised technological knowledge and expertise and found that they could often get the quality they desired only by modifying commercial gear or constructing their own (O'Connell, 1992, p. 4). The war left an enduring legacy of agency as audio buffs became increasingly interested in building or tweaking equipment (Keightley, 1996, p. 151). Many early enthusiasts were sound engineers who published how-to guides for laymen and audiophiles so that they too, could get the most out of the listening experience (Morton, 2004, p. 131).

In response to this increased desire to participate firsthand in the output of sound a plethora of do-it-yourself hi-fi kits entered the market in the 1940s and 1950s, "thus contributing to the sense of hi-fi as a continuation of the manly activities of the workshop" (Keightley, 1996, p. 151). New, less interactive, radio kits also became available at this time. Veteran hams were concerned by the influx of new hobbyists that

these products encouraged, fearing that the unwritten rules of the culture would be violated (Haring, 2007, p. 70-72). Though we already noted that active participation was an important way that hobbyists asserted their masculinity with regards to audio technologies, this correlation seems to have increased in prominence in this era. Modifications were valued ever more as "Technical hobby communities considered the extent of members' interactivity with apparatus to be a measure of personal commitment" (Haring, 2007, p. 10). Hobbyists thus distinguished their activities from those of other amateurs through their level of engagement with their gear. During the war many women became employed as telegraphers and assemblers of radio parts, posts that women maintained after the war (Haring, 2007, p. 36). Haring (2007) argues that this threatened the masculine conception of ham hobbyism, resulting in new campaigns that deliberately positioned amateur radio according to masculine ideals. Male language and imagery such as power, engineering, strength, technical mastery, and active participation were discursive techniques used to underline the masculinity of the pursuit (p. 37-39). Hi-fi advertising in this era also stressed masculinity through text and imagery. For example a 1960 Pilot ad is blatant in its masculine appeal. The ad states:

> Don't fall victim to the myth that some of your stereo components can be weak links without loss in performance. A boy sent to do a man's job is still a boy no matter how many men surround him. Pilot stereo components are all 'men.' Each is a strong link in any system… each is as responsive an instrument as you could demand (*High Fidelity*, January 1960, p. 6).

The text contrasts female language (victim, weak) with the male trait, strength. The image serves to complement and reinforce the text, depicting heavy chain links. The message contained in the ad is that all components in a system are equally important and that each should be of equivalent strength (of the same brand) in order to prevent "loss in

performance." The use of the phrase "loss in performance" alludes to the ultimate male fear – both in real life and in audiophilia. The script and layout of the ad are decidedly macho, using block type and male language to make the supreme emotional appeal by questioning the reader's masculinity.

The war elevated the status of radio tinkering and licensed amateurs increased from 115,000 in 1954 to 205,000 in 1959 (Douglas, 2004, p. 333). Boys especially were encouraged to participate in this technical hobby. Panic over security in the nuclear age led to a belief that a reserve of technical experts was advantageous. Haring (2007) argues, "The Cold War urgency to produce scientists and engineers further imparted a sense that boys active in ham radio had the potential to strengthen national security" (p. 120). For boys radio hobbyism was considered to have the double benefit of furthering their education while also keeping them out of trouble (Haring, 2007, p. 122). Yet as much as radio hobbyism was revered for its potential in matters of defence, hams were held under suspicion due to anti-communist hysteria that questioned all activities that promoted communication with foreigners (Haring, 2007, p. 104).

4.2 Gendered Technologies

Taylor argues that the increased emphasis on technology development in the post-war era resulted in equipment that was intended to appeal to different gender lines. Support for commodity scientism in the 1940s and 1950s required that the American citizenry as a whole support technological progress, thus public dialogue regarding advances tended toward the vernacular. Taylor (2001) argues:

> It should be clear that, from the science and technology proponents'
> viewpoint, science and technology were supposed to benefit everyone. If

the federal government's plans for a massive expenditure of income tax dollars on nuclear energy and weapons and later the space race were to be justified, this technology thus had to be made acceptable to everyone, not just men. So women had their push-button and other kitchen and household appliances, potent symbols of American technology and technological superiority (p. 78).

Ellen van Oost (2003) adapts Madeleine Akrich's concept of the "script" into the "gender script," arguing that designers intentionally project characteristics onto an artefact so that they connote certain gender relations (p. 195). van Oost argues, "Gender scripts do not force users to construct specific gender identities, but scripts surely act invitingly and/or inhibitingly" (p. 196). The script does not determine usage, but nor are scripted objects neutral. This may be exacerbated in instances where a gendered script is tied to a specific lexis or series of customs that are not readily accessible to the uninitiated user. Keightley (1996) argues that while the LP was not an inherently male technology, hi-fi was (p. 150). Taylor (2001) points out that different types of record players were marketed to men and women. The latter emphasized push-button technology and ease of use, while the former accentuated complexity and technological proficiency. "The point is, though, not that women were 'untechnological,' but that *complex* technology was defined as the proper domain of the man. The position that separate components are better than integrated ones is still held by today's audiophiles" (p. 81).

It is significant that technologies were treated in discursively distinct modes as regards men and women. Théberge (1997) argues that the media heavily influences popular conceptions of activities. How a product is advertised and how it is discussed affects how it is received. Kembrew McLeod (2002) maintains, "Discourse plays an important role in structuring and reproducing social relations." He continues, "*what* is talked about and *how* it is talked about influences who feels comfortable enough to come

out and play – how certain cliques form" (p. 93). We saw in the previous chapter that

audio technologies were stratified according to gender lines in articles and advertisements

in the popular press. In the introduction to *Masculinity and Men's Lifestyle Magazines*,

Bethan Benwell (2003) contends that masculinity is always understood in opposition to

femininity. He argues:

> A biological account of gender, whilst less fashionable and credible within
> an academic context, is still the most enduring and seemingly intractable
> orthodoxy within popular and media culture. The whole ethos of men's
> and women's lifestyle magazines, for instance, is entirely predicated upon
> the assumption that men and women occupy exclusive sub-cultures which
> are polarized in terms of values, behaviors and styles, and that such
> differences, whether emotional, linguistic or lifestyle, are entirely natural
> and essential (p. 17).

If we return for a moment to Sterne's interpretation of Bourdieu's *habitus*, we can see

how men and women were fortified with dissimilar conceptions of the role of technology

in their lives. In her examination of gender and rock and roll Holly Kruse (2002) argues

that we learn to discuss subjects based on how they are presented to us (p. 149).

Magazines aimed towards women have historically positioned audio technologies

according to aesthetic concerns rather than the technical. Because women are not

presented with technical considerations they lack the fundamental vocabulary that would

allow them access to the male experience of audio. This is especially problematic in the

world of high-end audio because the primary concerns and the language with which they

are discussed are continually shifting. Haring (2007) notes:

> Technical hobbyists formed technical identities in two senses. They
> personally identified with technology and they created identities for
> technologies. The double meaning evoked by 'technical identification'
> points out that the technical identities of people and technologies are
> coproduced (p. 7).

Audiophilia is a solipsistic culture, protecting itself from outsiders by refusing to define itself. Exclusion is thus a self-perpetuating cycle. Women are denied admittance to male audio culture because they do not possess the requisite knowledge. They are prevented from acquiring this knowledge because it must be bestowed, rather than learned. Knowledge, here, is a form of cultural capital. Straw argues that boundaries are maintained "by requiring for admission a body of specialized knowledge and by understanding when that knowledge is *not* to be shared" (In McLeod, 2002, p. 95).

4.3 Commercialization and Anti-Mass Sentiment

As we have seen throughout this thesis, class divisions are as important as gender demarcations in audiophilia. The proliferation of kits combined with a new emphasis on hobbyism in the post-war United States forced some enthusiasts to reorganize in the face of encroaching commercialization. Taylor (2001) argues that the democratizing potential of technologies "should always be accompanied by questions: In what ways? For whom?" (p. 6). The dissemination of notions of "high fidelity" in the commercial press would eventually result in the development of two distinct hobbyist cultures: that of the mid-fi enthusiast, confusingly often referred to as the hi-fi hobbyist, and that of the high-end aficionado, whom we recognize here as the audiophile.

While the term "high fidelity" was used prior to World War II, its meaning was different. Originally "high fidelity" was associated with improved sound quality, such as greater dynamic range and less noise, but after the war it increasingly became synonymous with a culture. Keightley (1996) notes, "'high fidelity' came to identify a quality of sound, a sound reproduction technology, and a cult of (male) hobbyists" (p. 151). In the United Kingdom *Full Frequency Range Response* (FFRR) recordings that

employed a military-developed technology used in the training of sonar operators, became available in 1944 (*Ibid.*). The direct association of these recordings with the dominantly male military and the prestigious post of sonar operator elevated the status of these albums, which became available in America in 1946. American records did not emphasize sound quality until 1948 when Columbia introduced the LP in an effort to reclaim consumers who had become enamoured with the FFRR discs (Keightley, 1996, p. 152). Sound quality was thus increasingly used as a marketing ploy. As this tactic was used on both high-end and mainstream consumers, audiophiles were forced to restructure their priorities in order to remain distinct. High-end aficionados distinguished themselves by postulating that the music was as important as the sound.

In the name of high fidelity the major manufacturers released a host of sound effects records. The type of consumer who bought these albums was disparagingly dubbed a "sound-for-its-sound-sake" listener, and articles began appearing in specialty audio publications questioning the hi-fi enthusiast who preferred effects to the immersive practice of 'good' music listening (*Ibid*.). The introduction of stereo sound in the 1950s aggravated the new emphasis on sound over music, exacerbating the rift between the high-end and the mainstream. Novelty records featuring sound effects such as sports cars, ski lessons, and sounds from outer space were released to demonstrate the potential of stereo (Taylor, 2001, p. 82). In response, the concept of immersion became an evident concern of high-end advertising. For example a 1966 Bogen ad plays on the intimacy of music listening (*High Fidelity*, July 1966, p. 84). The ad portrays a man, who through the fidelity of his phonograph system has been transported through time and space. This ad plays on the belief that there is something inherently emotional and visceral about

musicality. The ad's image contains a female 'object' of male pleasure (we know from the text that she is "one of Lulu White's Storyville 'entertainers' circa 1905.") The male listener appears entranced, satiated, fulfilled, equating music listening with a pleasurable erotic experience.

As the rhetoric of high fidelity became progressively more of a commercial preoccupation the enthusiast had to carefully weed genuine goods from the popular (Keightley, 1996, p. 158). The audiophile became suspicious of anything with mass appeal. A 1948 letter to the editor in *Audio Engineering* argued, "Our audio systems must become instruments of individuality" (White, 1948, p. 47 in Keightley, 1996, p. 157). Audiophiles spent a great deal of time researching and tweaking equipment. By investing labour in his gear the audiophile symbolically appropriated the commodity from the commercial forces that created it. Perlman (2003) notes, "These 'tweaks,' with no scientifically accepted relationship to the technological principles of the audio device, continued to allow the user to appropriate, domesticate, and personalize store-bought equipment" (p. 347). Thus the audiophile embraced a pair of sometimes-conflicting values: he at once upheld that musicality, not sound, was the goal of his pursuit, while also maintaining that technology required constant care and fine-tuning. While these disparate ideals seem problematic at first glance, they make more sense when we consider that the audiophile must constantly rationalize his activities in contrast to those of women and the mainstream.

The individualizing activities of audiophilia can be gauged against the generic conformity accorded the television console. Keightley (1996) argues, "The opposition between high fidelity and television ultimately comes to operate within discourses of

gendered taste, whereby high fidelity is cast as high, masculine, individualistic art, and television is portrayed as low, feminine, mass entertainment" (p. 156). Like broadcast radio, television is considered a one-way distraction rather than an interactive hobby. Similarly, push-button record players designed for entertainment purposes were dissociated from the participation-enhancing component systems of the audiophile. Perhaps another reason that the audiophile denigrates both television and commercial radio is that they compete with the record player for domestic space (*Ibid.*).

4.4 Domestic Relations

The role of the phonograph in the home is one that needed to be negotiated and re-negotiated time and again (Kruse, 1992, p. 13). While phonographs and record players were common features of middle class homes, it was the feminized version of the technology that tended to be featured in communal space. The emergence of stereophonic systems in the 1950s complicated longstanding aesthetic debates as speakers needed to be integrated into the décor (*Ibid.*). Taylor (2001) points out that the emergence of stereo was concomitant with the popularization of increasingly open concept architecture in the 1950s and 1960s (p. 81). The male component system did not conform to the aesthetic demands of the home, which continued to be controlled by the woman of the house.

There are two conflicting views of how audio technologies were utilized in the battle over domestic space, and since I believe that both have merit and that they likely coexisted I wish to examine each in turn. The first argument is that men used audio technologies in an attempt to regain some control of domestic space; the second is that they employed these technologies as a means of evading the communal aspects of the home. In her book *The Hearts of Men*, Barbara Ehrenreich (1983) argues that the male of

the 1950s wanted to assert his place within the home. Ehrenreich examines the discourse in *Playboy* magazine for evidence of how men worked to accomplish this. She notes that the magazine promoted indoor activities: pin-up posters, a culture of mixing cocktails, listening to music, and presumably the act of perusing the magazine itself, were encouraged. Hugh Hefner was explicit in his tactics stating:

> Most of today's 'magazines for men' spend all their time out-of-doors – thrashing through thorny thickets or splashing about in fast flowing streams (…) But we don't mind telling you in advance – we plan on spending most of our time inside. WE like our apartment (*Playboy*, 1953 in Ehrenreich, 1983, p. 44).

While the reference to 'our apartment' may connote bachelorhood, it should be noted that over 50% of Playboy readers in this era were married (Ehrenreich, 1983, p. 43). Taylor (2001) argues that affirming dominance over domestic space could be as simple as playing a record as "music can fill a room like nothing else – men and their hi-fis could colonize the living room and beyond" (p. 80). Keightley (1996) concurs, maintaining that high playback volumes could drive wives out of shared areas (p. 171-172). Straw (1997) takes a different approach, arguing that record collecting is another way that men were able to exert some influence over the space (p. 5). The albums themselves needed to be stored somewhere, and if the man succeeded in having them displayed in the living room he was able to exhibit his taste in the collective realm.

On the other hand some men may have deployed audio hobbyism as a means to escape the trappings of the domestic environment. In the 1950s professional men were encouraged to participate in "nonremunerative pastimes" in an effort to avoid stress (Ehrenreich, 1983, p. 68-87). Participation in this type of hobby often increased the amount of leisure time the male spent at home. But for many men, avoiding stress meant

isolating oneself from the clamour of the household. The type of focused listening that had developed since the advent of recording required "environmental silence" (Keightley, 1996, p. 169). Noises such as the chatter of women and children were intolerable. Keightley (1996) notes:

> The 1950s especially saw a dramatic increase in male suburban domestic leisure activities, which frequently involved the creation of a separate space for husbands, whether a garage workshop, a basement darkroom, or a backyard toolshed. All of these spaces may be thought of as domestically marginal or liminal, as outside the sphere of influence of the wife; to some extent they represent a return to earlier notions of separate male domestic space (p. 59).

Audiophile emphasis on component parts and the incessant need to alter and fine-tune equipment did not lend itself to the clean and tidy conception of the modern living room. Millard (1995) notes, "Instead of masquerading as a piece of furniture, the component system unashamedly announced its function with an array of dials and switches that reminded one commentator of the cockpit of a B52 bomber" (p. 217). Tinkering with audio thus became the means through which men were permitted to evade the drudgery of conjugal living. Perhaps the later resistance to 'black box' technologies that limit user engagement with the artefact are in part a refusal to sacrifice the private time and space afforded by more complex audio systems.

One more factor should be examined in the affirmation of masculinity in this era. Barbara Ehrenreich (1983) notes that the task of the 1950s man was to become a "breadwinner." She argues that in this era marriage was equated with maturity while failure to marry was associated with deviance. Men were to take a wife, start a family and procure gainful employment. It was the role of the husband to provide the "family income" that the wife would then use to supply household needs. We noted previously

that women exerted primary control over household commodity selection, a verity that continued well into the 20th century. A 1958 *Look* magazine poll stipulated that women controlled the funds in 71% of households and made 60% of all purchases (Ehrenreich, 1983, p. 37). Considering these social conventions it is not difficult to see how men might want to claim an activity for themselves amid all this conformity. Involvement in amateur audio was not only a way to carve out a niche in domestic space, but also a way to reclaim some control over the use of the male income. High-end audio allowed the 'breadwinner' to participate in commodity selection, as well as allowing him to claim a portion of his salary for himself alone.

4.5   Commoditization and Stratification

It should be evident so far that the industry and the enthusiast have a symbiotic relationship. The expert user often discovers or popularizes a trend only to have the industry package it and sell it back to the masses. As concepts are promoted to the mainstream market, the audiophile is forced to redefine his activities in order to distinguish his pursuit from the majority. One preference evidenced by audiophiles that can almost certainly be traced back to the war and to the fear of conformity spawned by the subsequent Cold War is the predilection for hand crafted, domestic products. Anti-communist sentiment in the 1950s led to a backlash against cultural conformity (Ehrenreich, 1983). Knowledge of audio technology was a way for the hobbyist to distinguish himself from the masses. Through connoisseurship or technical expertise the audiophile was able to individualize his involvement with the commodity. Favouring small manufacturers and local dealers allows the audiophile the opportunity to feel that he participates in the design process. High-end products often need to be sent back for

repairs, allowing the audiophile to develop and maintain personal relationships with the producers and their intermediaries (*TAS*, 8.29, 1983, p. 8). Moreover by allying himself with specific brands or models, the audiophile is able to align himself with like-minded individuals. Commodity selection thus bonds the audiophile to a community while setting him apart from the mainstream.

Audiophiles may also differentiate themselves by rejecting industrially prescribed changes to technology. We saw earlier that electrical phonographs were initially rejected on the grounds that they were 'unnatural.' A similar occurrence was evidenced in the 1950s when audiophiles insisted that new transistor equipment was inferior to older tube gear. Tubes were made all but obsolete when transistors hit the market in the 1950s, yet audiophiles held firm that they were sonically superior (O'Connell, 1992, p. 22). While the transistor versus tube debate still rages today it is likely that early resistance to transistors was related to the threat of mass manufacturing from the Far East. Millard (1995) notes the pervasiveness of Japanese manufacturers such as Panasonic and Sony, who in the 1960s "devised smaller and cheaper machines to go in the kids' rooms, the kitchen, the car, and the boat" (p. 221). Aside from residual xenophobic sentiment that may have lingered in the minds of enthusiasts who had served in the war, the products introduced by the Japanese manufacturers promoted democratic ideals, which were at odds with audiophile standards of elitism and superiority. These new technologies did not require the technical know-how associated with older gear (Taylor, 2001, p. 110-111). Tube equipment was heavy and cumbersome and required constant care. It may also have evoked nostalgia for the past, especially for those involved in World War II as tube aesthetics are redolent of war technologies (O'Connell, 1992, p. 22-24).

When examining the introduction of new audio technologies it is important to acknowledge that sound quality is only one aspect of how an innovation is received. Object selection reveals a great deal about the purchaser. Cultural values are inscribed into and become synonymous with the commodities themselves. O'Connell (1992) argues:

> In contrast to the sometimes short-lived messages of the media, the design of everyday objects has the capacity to cast ideas about who consumers are and what they value into permanent and tangible forms, so that these ideas seem to be part of reality itself. In tangible form, the ideas can then be fed back into society as if they were part of 'nature' and used in a fundamentally different way than if they remained disembodied values (p. 6).

When an audiophile chooses a commodity he is symbolically allying himself with the principles and ethics of the producer. Understanding what audiophiles reject is often as revealing as an examination of what they revere. In the post-war era more and more emphasis was placed on engineering specifications in promoting audio technologies. Given that audiophiles tend to admire scientific knowledge one would expect that these measurements would be welcomed, but this is not always the case. Perlman (2004) maintains, "time after time, audiophiles have resisted the judgments of audio engineers, trusting their ears in the face of the dicta of scientific theories and engineering measurements" (p. 785-786). By calling on the rhetoric of science, manufacturers and advertisers claim authority over the listening experience. Manufacturers may then use this evidence to force obsolescence or compliance with new formats. Manufacturers often limit "backward compatibility," forcing users to keep up with trends (Sterne, 2007, p. 23).

Improved industrial capacity in recent decades has led to a "mass" manufacturing approach. Goods producers prefer to limit their offerings in order to maximize profits. Plasketes (1992) maintains:

> Technology and economics are among the primary forces which determine or contribute to cultural transitions and movements. Innovations routinely shape and define our cultural experience and consumption patterns. Whether referred to as a 'revolution,' or simply 'progress,' advancements are characterized by a cause and effect process – a simultaneous evolution of one form and de-evolution of another (p. 109).

However obsolescence often leads to subcultures that cling to old ways or old artefacts (*Ibid*.). Audiophiles resist forced change. High-end audio does rely on economics and technology but in a different way than mainstream audio. Innovations in audiophilia are not necessarily adopted immediately and often need to be adapted to fit with the ideals of the culture. While 'progress' is certainly valued in audiophilia, and systems are perpetually updated in the name of better fidelity, 'revolution' is not necessarily embraced. Revolution suggests a new way of doing things, which would undermine the knowledge accrued by the audiophile. In audiophilia incremental changes are highly regarded whilst systemic overhauls threaten the culture altogether. We will consider the quintessential example of this in the following chapter when we examine how audiophiles reacted to imminent digitization in the late 1970s and early 1980s.

4.6 Magazines and Community

Before we move into an analysis of the digital era I want to briefly consider the role of magazines in shaping the identity of the audio enthusiast. We noted previously that hobbyists garnered a great deal of knowledge by reading published articles, reviews, and advertisements. For several decades these texts were available only in general

interest publications, but in 1947 *Audio Engineering* (later to be known as *Audio*) became

the first magazine devoted to the audio hobbyist. *High Fidelity* followed shortly

thereafter in 1950. Théberge (1997) argues that special interest magazines are more

profitable than general interest publications because they are more attractive to

advertisers (p. 107). However, as profit driven enterprises these publications are

susceptible to certain biases. In an attempt to reach as large a readership as possible a

wide variety of equipment needed to be evaluated, which may not have complemented

the audiophile's preference for elite products. Moreover since revenues were equated to

advertisements, publications were often accused of writing preferential reviews of

products belonging to large accounts (*TAS*, 6.21/22, 1981, p. 14; *TAS*, 7.26, 1982, p. 316-

317; *TAS*, 8.32, 1983, p. 40-42; Atkinson & Holt, 2007). The prevalence of reviews and

articles devoted to major manufacturers combined with the mass appeal of these

magazines soon tired the perfectionist audiophile, who dismissed these publications as

"commercial." In response several "underground" publications appeared on the scene.

Stereophile[xxiv] began sporadic publication in 1962, while *The Absolute Sound* appeared in

1973. These underground magazines devoted themselves to reviewing high-end products

by small-scale manufacturers and did not accept manufacturer advertising.[xxv] In this way

they positioned themselves as neutral and unbiased, though a close examination reveals a

great deal of prejudice against mainstream manufacturers.

What is perhaps significant about the commercial/underground schism is the

extent to which audiophile ideals are used to sell mid-fi products in the mainstream

publications. When I conducted my analysis of *High Fidelity* magazine I was surprised to

find so many audiophile concerns reflected in the advertisements of international

manufacturers. Masculinity, elitism, agency, superior listening skill, and an emphasis on 'good music' are discursive tactics borrowed from audiophilia to sell products that no self-respecting enthusiast would ever consider purchasing. For example, lower-end advertisements like this 1960 Fisher amplifier ad often use adaptability as a selling point (*High Fidelity*, January 1960, p. 13). At first glance the ad appears to target the agency-loving audiophile by emphasizing the potential for individualization through the product's "sixteen inputs" and "twenty-seven controls," yet on closer inspection there are several key points on which the audiophile would reject this system. First, it posits itself as the "best selling" stereo control/amplifier, which sounds too hegemonic for the freethinking audiophile. Second, though the ad makes claims of electrical quality, no facts or specifications are given to back up this statement. Third, the ad suggests that "one glance, top side or inside, will tell you that there is no finer made." This statement values the eyes and visual aesthetics over the ears and the listening experience. Last, the remote control is heavily emphasized. In the pre-digital era, remotes would likely be viewed by the true audiophile as gadgetry, limiting the tactile experience prized by the high-end enthusiast. Yet despite all these issues the ad clearly positions itself on the ideal of adaptability. Multiple controls, "more than you may ever use," and stereo dimension control, so that the user can create sound "suited to *your* home and *your* taste" are the major selling points. Here we see how adjustable parameters are considered key to making the layman feel like an audiophile.

Considering the appropriation of audiophile ideology by the high-end's chief nemesis, the mainstream industry, it is not particularly surprising that audiophilia would become increasingly insular as we venture towards the digital era. The new underground

publications bound like-minded enthusiasts together by offering hobbyists a forum for

communication free of advertising rhetoric. This is not to say that these publications were

safe havens of enlightened discussion, as these communities were governed by editors

that often acted more like autocrats than democrats. However we must remember that

egalitarianism is not the goal of the audiophile. The 'us versus them' mentality of

perfectionist audiophilia is thus in part a reaction to the blatant use of high-end ideals by

mid-fi manufacturers and publications. Consequently, audiophiles identify themselves

both in relation to other audiophiles, but also in opposition to mid and low-fi audio

consumers.

4.7 Summary

Commercialization and mass-production techniques made audio technologies

more accessible in the post-war era. However, as we have seen, democratic ideals have

never resonated well in audiophile culture. Consequently, high-end enthusiasts had to

find ways to distinguish their practices from those of newcomers to the field. One way

this was accomplished was through the privileging of technical knowledge. But not all

enthusiasts possessed the scientific background necessary for a true understanding of

audio, thus pseudo-scientific tweaks became increasingly common. In either case

audiophiles affirmed their commitment to high-end audio through interaction with their

gear.

The Second World War relied heavily on modern technologies, giving credence

both to audio equipment but especially to the expert users who understood how to use

them. Audio hobbyism in the 1950s was imbued with a sense of importance. Men and

boys engaging in this type of activity were tacitly participating in matters of national

defence, rather than mere entertainment. Technology itself was regarded in a new light in this era. However this cultural shift required that technology be endorsed by women as well as by men. It is thus significant that men expressed their dedication through the individualization of their gear as it distinguished their practices from the passive entertainment associated with feminine "push-button" audio technologies. Advertising discourse in this era helped to maintain the male/female divide as different values were put forward in men's and women's magazines.

However while discourse aimed at men was unlike that aimed at women, a new challenge appeared in the form of the hi-fi listener. For audiophiles hi-fi was a commercial construct, not a true form of high-end hobbyism. In order to differentiate high-end practices from those of the mid-fi listener audiophiles rejected certain commercial advances. Audiophiles were sceptical of recordings that emphasized 'sound' rather than 'music.' "Unnatural" spatialization and sonic effects were considered "unmusical" and thus undesirable by the audiophile. This emphasis on "musicality" was also used as a tactic to subvert certain industrial innovations. Scientific measurements were increasingly employed in this period as a marketing technique. However blatant acceptance of scientific specifications would have the effect of according authority to manufacturers. By positing the supremacy of the golden ear in matters of musicality, the audiophile was able to reject products that did not appeal to him without requiring any further justification.

Anti-mass sentiment is witnessed in this era through the audiophile's preference for domestic, independently crafted products. A part of this is likely due to a residual xenophobia leftover from the war, though certainly non-conformist sentiment also came

into play. Mass produced commodities tended to simplify the experience of audio and were also much more affordable. Many of these systems consisted of integrated rather than component parts, which threatened to eliminate the need for individuated acoustic spaces. By selecting small-scale manufacturers the audiophile demonstrated superior knowledge through commodity selection as well as affirming his grand commitment to musicality through his monetary expenditure.

The post-war era had both positive and negative effects on high-end audio. Contemporary interest in technology elevated the status of the audio hobbyist while also exposing the culture to the threat of infiltration. High-end audio was forced to distinguish itself from the practices of women and the mainstream. Audiophiles scorned other forms of audio hobbyism, equating hi-fi enthusiasts with the 'cultural dupe.' Masculinity, elitism, and an emphasis on knowledge remained the primary characteristics of audiophilia. Additional emphasis was placed on active participation and the elusive concept of "musicality." Audiophiles took it upon themselves to preserve the integrity of musicality in the face of mass manufacturing that aims to serve the lowest common denominator. Interestingly, resisting mainstream audio movements sometimes meant disparaging innovations that would otherwise be deemed progress.

5: THE DIGITAL THREAT

In order to examine how audiophiles received the introduction of digital technologies we must review how high-end audio culture was delineated up to this point. Audiophilia is a culture of exclusion. Participants identify themselves as much as by what they are not as by what they are. Excluded parties include women, the lower classes, and those without the requisite knowledge – impostors with mid-fi leanings. Over the years the chief enemy of the audiophile became the major audio manufacturers, who are understood to "dumb-down" equipment or compromise sound quality in the name of profit. The perfectionist audiophile engages in what could best be termed "educated consumption," privileging a knowledge base that requires him to stay abreast of all innovations and changes in the industry regardless of whether he agrees with them or not. O'Connell (1992) argues that the audiophile "receives the message that he is justified in consuming the expensive goods to which others do not have access, provided only that he is discriminating enough to appreciate their quality" (p. 8).

This is what makes an examination of discourse in the underground audio press so valuable. Since the audiophile is constantly trying to affirm his place in the culture he is quick to reveal his values as well as to demonstrate what he abhors. An analysis of letters to the editor, editorials, and articles in these publications illustrates longstanding audiophile concerns and how they are negotiated in the wake of a 'revolutionary' new technology. Let us now take a look at the culture of audiophilia in the late 1970s and early 1980s, including a discussion of the reception of digital technology.

5.1   The Audiophile Community Circa 1980

We noted throughout this work that the primary means by which audiophiles maintain their connection with the high-end community is through interaction with audio publications. At this juncture I would like to examine some evidence of the community in action. The underground press offered a significant forum of communication because it allowed hobbyists to exchange ideas with each other as well as with the industry. However these exchanges were not unmediated. The editors of these magazines were more than just publishing supervisors, but more like gurus or demigods. Hobbyists were welcome to question the assertions or actions of the editors, but woe betide the audiophile who disagreed with the rudiments of the editor's philosophy. For example, a 1982 letter to Harry Pearson accused *The Absolute Sound* of being unscientific. The author writes, "Until you become more scientific, you will only be, at best, a veiled hoax to the uninitiated, and, at worst, a laughing stock to the entire scientific community" (*TAS*, 7.25, 1982, p. 23). Pearson, proud of his subjective philosophy, responds with a poem:

> Science loves me, this I know
> For my slide rule tells me so
> Little ones to it must belong
> It is right, they are wrong
> Yes, science loves me
> Yes, science loves me, (etc.) (*Ibid.*)

Likewise, in 1981 when *The Absolute Sound* started accepting manufacturers' advertising (after a lengthy consultation with the readership), a reader wrote in accusing Pearson of selling out, or in his words (and in reference to the notoriously scorned editor of *Stereo Review* Julian Hirsch), "showing symptoms of the Hirsch Syndrome" (*TAS*, 6.23, 1981, p. 240). Pearson demonstrated little patience replying, "I suppose that I will have to endure paranoidal diatribes like yours" (*Ibid.*).

What is more, letter writers who did not display sufficient audiophile knowledge were called out by both the editors and by other audiophiles. In response to a 1983 denunciation of digital in which a letter writer argued that in a direct comparison between analog and digital recordings even two non-audiophiles (the writer's neighbour and wife) preferred the analog, J. Gordon Holt patiently replies with a laundry list of reasons that the hobbyist's methodology was faulty, concluding by pointing to an unforgiveable gaff. Holt asserts:

> It is unfortunate that you chose the disc you did to make odious comparisons to the Telarc 'Bolero.' Columbia has earned a reputation during the past 20-odd years for recording some of the rottenest massed-violin sound your disc-buying money could get you, largely because they aimed their recordings specifically at those people – two of whose opinions you cited in your letter – who know nothing about hi-fi (*Stereophile*, 6.3, 1983, p. 62).

Both *Stereophile* and *The Absolute Sound* denigrate Columbia whenever possible. By referencing a CBS disc the hobbyist demonstrated that he does not possess the requisite knowledge to be considered a full-fledged member of the audiophile community. However knowledge in itself is not the only way a reader can display a lack of cultural capital – he is also expected to understand inside jokes and imagery. For example in a 1982 letter to Holt a reader complained that a reporter "put his foot in his technical mouth" when he accepted a claim that the weight of electrons could affect the function of a diaphragm. Holt responds:

> Where's the sense of humor we assume that most of our readers have? That was a put-on, fella, and you were put. (…) We try to make a point of calling attention to some of the borderline believables, but we thought this one was so patently ridiculous that no one would take it seriously (*Stereophile*, 5.2, 1982, p. 27).

Similarly, a letter to Harry Pearson arguing that a recent cover displayed an uncanny resemblance to a famous work of art and thus should have been referenced is met with the rejoinder, "We assumed everyone would understand the homage to Bosch and saw no need to be obvious" (*TAS*, 7.25, 1982, p. 18-19).

Debate between letter writers is also commonly found in the pages of these publications. A letter written by one audiophile will often be "corrected" by another, frequently causing the first author to retort as well as prompting additional opinions from other members of the community.[xxvi] But dialog is not the only means by which audiophiles are led to feel that they are a part of a community. Both magazines treat readers as peers and often call on hobbyists in times of need. Neither *Stereophile* nor *The Absolute Sound* relied on manufacturer's advertising for revenues in the early digital period and both publications suffered from financial strife and sporadic publication schedules. In 1981 *Stereophile* implored subscribers to renew early in order to help with the magazine's dire financial circumstances (*Stereophile*, 4.9, 1981, p. 33). In this way readers of the underground press were made to feel like valued contributors, compared to the top-down advertiser-driven quality of the mainstream publications. Both underground publications regularly printed a notice declaring that sharing the periodical was akin to theft. One *Stereophile* notice read, "If you're reading this FREE, having borrowed it from a friend (No friend of OURS, we'll have you know!), you are STEALING!" (*Stereophile*, 4.9, 1981, p. 33). Every member of the community was expected to procure his own copy – through subscription, not by purchasing the journal at the newsstand. At *The Absolute Sound* non-subscribers were referred to as "vampires" (*TAS*, 7.25, 1982, p. 152) and Pearson once revoked the subscription of a reader who admitted loaning his copy to

friends (*TAS*, 8.31, 1983, p. 14-15). Harry Pearson even declared his disinclination to publish letters from non-subscribers (*TAS*, 6.23, 1981, p. 234). Community sentiment was also reinforced by the occasional publication of a reader submitted article. *Stereophile* even put out a call for unpaid correspondents in 1982 (*Stereophile*, 5.2, 1982, p. 17).

Aside from interpersonal communication there was another way that the audiophile community was bonded together. The editors of these publications often called their readerships to arms. This usually took the form of a letter writing campaign or a boycott of a product. In 1981 Pearson argued that it was the responsibility of the audiophile to fight against digital recordings. Not only did he publish the mailing addresses of the presidents of the major recording manufacturers, but he also appealed for corporate spies. He wrote, "we are vitally interested in creating a network of *TAS* undercover operatives (spooks to you, Casper) who will inform us and our readers of the derring-do that goes into the formation of what is called corporate policy" (*TAS*, 6.24, 1981, p. 390-391). Holt also employed pressure tactics, arguing that audiophiles needed to push for better quality digital recordings. In his rallying call Holt published contact information as well as a 5-point guide to writing successful letters (*Stereophile*, 7.1, 1984, p. 4-7). For his part, Pearson's reaction to the digital dilemma was to "censure" the Compact Disc as well as all of its proponents (*TAS*, 8.31, 1983, p. 5-6). Perhaps the most notorious letter writing campaign ensued after *Audio* magazine, a subsidiary of CBS, decided that it would no longer carry advertisements for the underground press (*TAS*, 7.25, 1982, p. 152). This campaign was started by the publisher of another specialty publication but was profusely embraced by the readership of *The Absolute Sound* and by some members of the *Stereophile* community. The *Audio* campaign was significant not

only because it demonstrated the tight nature of the perfectionist audiophile populace, but also because it highlights the 'us vs. them' mentality of the high-end towards mainstream audio.

Many audiophiles believed that the reason *Audio* stopped accepting advertisements for the underground was because audiophiles scorned CBS' new CX "Compatible Expansion" record system[xxvii] (*TAS*, 7.25, 1982, p. 152). As noted above CBS was a source of disdain for the high-end community as their products were considered to appeal to the lowest common denominator. CBS did not help this conception by asserting in the manufacturer's response section of *TAS*:

> The record business is *the* business. (…) Even The Absolute Sound owes its existence to the likes of CBS, RCA and WEA. We feel that it is our business to understand what records are, and then design the equipment to play them properly. If esoteric equipment manufacturers start dictating to the record companies, it can be likened to the mouse who had the elephant by the B---S! (*TAS*, 7.25, 1982, p. 81).

CBS made its mandate clear; they are out to target the masses and are not concerned with the desires of a few pretentious audiophiles. This is evidenced as the author further attacks the audiophile community arguing that the "knob twiddlers" are threatened by CX as it limits the need to "gain ride," or interact with the technology, and accuses audiophiles of spreading "misinformation" about the product (*TAS*, 7.25, 1982, p. 81). Many enthusiasts felt that the *Audio* advertising ban was an attempt to suffocate the underground. They argued that advertising in a mass-circulation publication was a means to garner new subscribers. Harvey Rosenberg, the publisher who started the letter writing campaign reasoned, "Advertising in *Audio* must be available for the underground press so that it may survive" (*TAS*, 7.25, 1982, p. 152). It seems to have been lost on audiophiles

that while they castigated CBS and its subsidiaries they also relied on them for publicity.

Amid the *Audio* backlash dozens of letters were sent to the publisher of the CBS

publication requesting that subscriptions be annulled. In defence of its decision *Audio*

editor Eugene Pitts wrote a letter to *TAS* stating:

> It's not subscribers' knowledge of the other generally good editorial
> material that bothers us. It's the economics of the situation. We simply
> don't see why, in these difficult economic times, we should continue to
> subsidize the efforts of folks who are after the very same circulation and
> advertizing revenues as we are (*TAS*, 7.27, 1982, p. 10).

Ultimately *Audio* reversed its decision, though it never admitted that this was the result of

pressure from the audiophile community (*TAS*, 8.30, 1983, p. 193). What the whole

debacle serves to illustrate is that high-end audio perceived itself in a constant struggle

against the major manufacturers. Community sentiment could be affirmed through

participatory acts that distinguished the enthusiast's predilections from those of the

masses.

Interaction between these magazines and smaller manufacturers is also evidenced.

A 1982 ad for Perreaux Power Amplifiers in *TAS* contains a reprinted version of a Harry

Pearson review accompanied by the assertion that the manufacturer agreed with flaws

identified by Pearson and had subsequently eliminated the defects (*TAS*, 7.28, 1982, p.

162). The manufacturer's corner present in both publications also served as a forum

where reviewers and industry could banter back and forth. Responses from firms vary

greatly in tone and seriousness, but it is clear that the small manufacturers valued the

opportunity to present their products to the audiophile public.

I hope this examination has served to illustrate that the underground press do

serve as a mediation junction. Editors, reviewers, audiophiles, and small and large

manufacturers each exert influence on, and are influenced by, the high-end audio community. All parties stay abreast of the happenings within audiophilia, which allows the participants to progress and transform concurrently. The beliefs of the involved parties may vary greatly, but participants are nevertheless attentive to all major events and changes.

5.2   Gender Representations in the 1980s

When I began my discursive analysis I was surprised by the diminution of chauvinist sentiment in the 1980s as compared to my research from earlier eras. While one potential reason could be that societal acceptance of unconcealed sexism was no longer tolerated in the 1980s, I would like to suggest that the reason I witnessed fewer instances of bigotry had more to do with the demographic of these magazines. Since 99% of the readership of the underground audio publications is male, there is less of a need to affirm and reaffirm one's masculinity on a regular basis. That is to say, that the absence of a threat removed the need to assert one's supremacy over the fairer sex. The reason I am inclined towards the latter assessment is that prejudice was apparent in several instances where female figures were given a voice. When Harry Pearson took on Enid Lumley as a columnist in 1980, nary an issue went by where readers did not write in to complain and call for her termination. She is described as "flaky," "ignorant," "tacky," "sanctimonious," and "condescending" (*TAS*, 6.21/22, 1981, p. 37; *TAS* 7.25, 1982, p. 21). One reader argues that she makes "preposterous statements," while also complaining that one of her tips was hardly revelatory as it is "well known and understood in electrical engineering" (*TAS*, 6.23, 1981, p. 248). It is interesting that engineering is used here to devalue Lumley's assertions. The writer does not argue that her claim is erroneous;

merely that it is already common knowledge (one presumes that it was discovered and disseminated by men). This same reader then questions her education and her intelligence stating, "I am rather surprised to read that Ms. Lumley is the holder of a Ph.D., so lacking is her work and writing in any semblance of technical discipline, rigor, and scholarship" (*Ibid.*). A common sentiment when addressing the Lumley issue is simply to request her termination without providing substantial evidence as to why this should be done. One reader writes, "Since it would take quite a number of pages to describe exactly why I feel this way, I don't feel justified in wasting your or your readers' time" (*TAS*, 7.25, 1982, p. 21). For one familiar with the lengthy diatribes submitted by readers on the most trivial issues, this is clearly the author's way of saying that Lumley is not worth his time or effort.

For his part Pearson generally supported Lumley, though his support was more in the form of letting her fend for herself than defending his columnist. After a reader called for Lumley's termination Pearson responded, "No, I will not do this. If and when she errs, correct her. This is the proper basis for educating both her and our readers" (*TAS*, 6.23, 1981, p. 249). And while Pearson did take the initiative to hire a female contributor it should be noted that Lumley was in charge of "The Bargain Basement," a column that focused on budget equipment rather than the exclusive and costly gear associated with masculinity (*TAS*, 5.20, 1980, p. 368). Lumley was thus pigeonholed along with her gender as a proponent of popular or mass-manufactured goods.

Lumley's time at *The Absolute Sound* was short-lived. When readers were not writing in calling for her termination they were questioning whether she was real or a self-parody of Pearson himself (*TAS*, 7.25, 1982, p. 14; *TAS*, 7.25, 1982, p. 20). One

reader even submitted a spoof column in Lumley's style suggesting that she was batty,

long-winded, and full of hot air, which Pearson printed in its entirety (*TAS*, 7.25, 1982, p.

34-35). Lumley resigned after only a year and a half with the publication. When Pearson

announced her resignation he cited some of Lumley's reasons including that she wanted

to review more expensive equipment and that she believed he was responsible for the

spoof column noted above (*TAS*, 7.26, 1982, p. 177). Many readers applauded Lumley's

departure. One letter stated:

> Congratulations! With the resignation of Enid Lumley, your magazine
> may now regain the respectability she cost it. Enid's technical ignorance
> was astounding. It cast a shadow over everything she wrote, and detracted
> significantly from *The Absolute Sound'*s position as a leading proponent of
> reasoned investigation into sound reproduction. Both you and your readers
> are better off without Enid and her kind of sophomoric theorizing that
> gives high end audiophiles a bad name. To me, the only unfortunate aspect
> of this situation is that you failed to show the editorial strength and
> wisdom to remove Enid from your staff long ago. It should have been you,
> not she, who rectified the error of hiring her in the first place (*TAS*, 7.27,
> 1982, p. 11).

This letter reveals several audiophile biases against women. The writer's assertion that

Lumley is "technically ignorant" and "sophomoric" suggests that he did not feel she

possessed the requisite knowledge and cultural capital to participate in high-end

audiophilia. It is interesting too that the writer refers to Lumley by her first name rather

than her surname, demonstrating a lack of respect rarely evident when male reviewers are

mentioned. Lumley is considered a weak link, a source of shame, rather than a member of

the *TAS* community. In my examination of seven years worth of letters to the editor no

other contributor was shown the type of contempt evidenced in discussions of Lumley.

While I must admit that Lumley's columns were somewhat uncultivated I'm tempted to

point the finger at Pearson for employing a female figure that would arouse such

controversy rather than the columnist herself. Though Pearson claimed to want a female writer on board, and professed to support his hire, he certainly could have found a more conventional contributor.

Similar sexist sentiment was witnessed after *TAS* ran an interview with musician Carol Pope. Like Lumley, Pope is identified with mass-culture and portrayed as an irrational female. One reader wrote, "If I wanted to read the *babblings on* of a neurotic 'pop' singer, I could have picked up a copy of *Rolling Stone*" (*TAS*, 9.34, 1984, p. 21). Yet over at *Stereophile* gender relations were less apparent. *Stereophile* did employ a female contributor; J. Gordon Holt's wife under the pseudonym Margaret Graham served as record reviewer in the early 1980s until their separation ended her affiliation with the magazine. Graham's contribution to *Stereophile* raised virtually no controversy during the period of my examination, though I can posit two reasons why this might be. First, as a record critic not an equipment reviewer Graham was never expected to possess the technical knowledge of a perfectionist audiophile. Second, the letters section in *Stereophile* has a vastly different feel than that of *The Absolute Sound*. *Stereophile's* letters section was notably shorter during this period and was less open to debate. Pearson was notorious for publishing as many letters as possible (in fact he often published letters complaining that he published too many letters![xxviii]), while I suspect that Holt carefully weeded through the letters submitted to his publication. In a rare letter referencing Graham the writer is pleased that *Stereophile's* record reviewer is female, as women are known to possess superior hearing abilities. The writer asserts, "We're happy knowing that we're getting a 'full-frequency review' for a change" (*Stereophile*, 4.6, 1980, p. 69).

Though in a chauvinistic way typical of the audiophile, the writer uses his own ears to affirm the extraordinary hearing abilities of Ms. Graham.

Thus gender was not made a big issue in *Stereophile*, though one equipment review published in 1985 reveals the underlying equation of femininity with lower-end components (*Stereophile*, 8.3, 1985, p. 71-72). The review, for a "best buy" product comprises a mock conversation between an equipment critic and his wife. The product under discussion is an inexpensive yet quality amplifier that the reviewer, in the estimation of his wife, has given an unfair evaluation due to its low cost. The wife extols the virtues of the amplifier while the husband contends that the product has limitations. At one point the reviewer responds to the wife's assertion that a virtue of the product is its light weight by arguing, "I don't review for sissies" (*Stereophile*, 8.3, 1985, p. 72). The wife places value on the product's aesthetics and cost-effectiveness, two traits historically eschewed by the audiophile. Thus while the article admits that the amplifier is a good product it also equates the product with feminine standards. Moreover the character of the wife is portrayed as pushy and a nag. She babbles on and on until her husband acquiesces, and only wins the argument by suggesting that if he does not want to write a more suitable review then his time could be spent in cleaning out the garage.

While the contributions of women in these publications are few and far between, reactions to their presence remain vociferous. Thus it would appear that contemporary audiophiles still harbour anti-feminine sentiment, but the closed nature of the culture reduces the need to harp on gender issues on a regular basis. Yet while the culture retains its predominantly male status, these hobbyists are all too aware of the supreme irony that on the whole women possess greater hearing acuity that men (*TAS*, 5.19, 1980, p. 256).

Perhaps this is yet another reason that the door to high-end audio has remained firmly barred to those outside the inner sanctum.

5.3   Imminent Digitization

5.3.1   Massification and Democratic Ideals

Digital technologies were an affront to audiophiles long before they were ever experienced. A major problem with the way digital technologies were introduced had to do with the top-down approach of manufacturers. Audiophiles felt that digital was being thrust upon them without their consent, a quandary for a culture that revels in active participation and commodity selection. Martin Bauer states that resistance,

> affects socio-technical activity like acute pain affects individual processes: it is a signal that something is going wrong; it reallocates attention and enhances self-awareness; it evaluates ongoing activities; and it alters this activity in various ways to secure a sustainable future (in Kline, 2003, p. 52).

Digital technologies threatened to disrupt the entire ethos around which the culture of audiophilia had been built: elitism, superiority, and stratification were all called into question in the wake of this new "perfect" technology. In response the culture of audiophilia needed to reorganize to defend itself against encroaching massification.

A large part of the resistance to digital had to do with the way the new technology was positioned by manufacturers and advertisers. Promotional rhetoric often presented digital as the 'second coming' of audio. For example a 1983 Sony ad for a Compact Disc player plays on divine intimations (*High Fidelity*, December 1983, p. 27). Phrases like, "In the beginning, there was analog sound," and from the company "present at the creation" suggest biblical imagery and that digital is the saviour of audio. Ads in this era

96

posited digital as accurate and flawless, which threatened to democratize a once tiered listening experience. Philips' slogan, for example, was "Perfect Sound, Forever" (*TAS*, 8.31, 1983, p. 23). O'Connell (1992) notes that early discourse around digital in the commercial press suggested that all players would sound alike. Thus for audiophiles, resistance to digital was not merely a matter of elitism, but a fear of rendering "years of emotional and financial investment utterly superfluous" (p. 29-30). The fear was so great that audiophile stances toward digital technology were solidified long before the first CD players reached the American market in 1983.

5.3.2 Digital Records

While CD players were the first all-digital technology to hit the audio market it should be noted that records pressed from digital masters were available starting in 1977 (*Stereophile*, 5.3, 1982, p. 18). Reactions to these digital records were mixed, as can be evidenced in *The Absolute Sound* and *Stereophile*. Harry Pearson's initial response was comparatively tame considering his vociferous objection to all things digital in later issues of his publication. Pearson's main complaint during this period was that the high frequency response was deficient, likely due to an inadequate sampling rate (*TAS* 4.13, 1978, p. 9-10; *TAS*, 4.14, 1979, p. 213-214). The rate at which digital was sampled gave audiophiles fodder to debunk the myth of sonic perfection. The higher the sampling rate the more expensive the technology, thus manufacturers attempted to find a rate that they felt was both satisfactory and economical. O'Connell (1992) argues, "Audiophiles are painfully aware that the technical standards for digital audio were not set with the goal of flawless reproduction but with an intimate knowledge of the human sensory apparatus

and its limitations" (p. 27). This compromise never sat well with audiophiles and letters

rejecting digital abounded in this era. A 1978 letter writer complained:

> What one hears on these discs through the digital process is not really
> music, but an estimation, an approximation. It is music, in other words,
> which is missing -- those complete details that make something sound real.
> I don't care how many samples are taken per second, in between those
> samples in those infinitesimal moments, the real music is only guessed at
> and filled in, and I can hear this! (*TAS*, 4.13, 1978, p. 9).

Integral to the culture of audiophilia is the enthusiast's belief that he can hear what others

cannot. The digital process thus offended audiophiles who posited the supremacy of their

listening abilities, even when what they claimed to hear couldn't be supported.

Over at *Stereophile* the editorial reaction to digital records was less extreme. J.

Gordon Holt was quite optimistic about the potential of digital and he wrote several

editorials and calmly responded to dozens of letters suggesting that his readership give

digital a chance. Holt pointed out that audiophiles initially rejected other advances in

audio technology such as the electrical phonograph and the LP. Holt's discursive strategy

was to position digital as flawed but promising. In a 1979 editorial he argued, "It's

probably safe to say that digital audio reproduction isn't perfect. What is?" (*Stereophile*,

4.4, 1979, p. 3). He then went on to list the potential benefits of digital including

increased dynamic range and the absence of "gross colorations" caused by the mechanics

of analog systems. As the 1980s progressed these two publications were fascinating, as

Holt became one of digital's greatest champions whilst Pearson digital's greatest

detractor.

One early controversy covered in both publications was "Dr. John Diamond's

Attack on Digital" (*TAS*, 5.20, 1980, p. 391-395). Dr. Diamond was a researcher at the

Institute for Behavioral Kinesiology who set out to prove that "digital sound saps one's muscular energy" (*Stereophile*, 4.8, 1980, p. 30). Performing a reproduction of his test in front of an audience at an *Audio Engineering Society* meeting in Los Angeles and using a basic test of muscular strength, Dr. Diamond asked his subjects to stand with one arm extended while listening to a recording. A tester then attempted to push a subject's arm downward by applying pressure to the subject's wrist. The test professed to demonstrate that when a digital recording was played the subject was unable to resist the downward pressure, yet when an analog recording was played the subject was able to maintain an outstretched arm. Both publications printed articles pointing out the flaws in Dr. Diamond's methodology, including that the test was not double blind and that other measures of stress were not taken into account. Moreover both publications reported that data from similar tests did not offer the same conclusive results. But while *The Absolute Sound* gave Dr. Diamond space to respond to these allegations, *Stereophile* accused *TAS* of falling prey to Dr. Diamond's erroneous claims. That *TAS* was forthright about methodological issues did not prevent Holt from pointing out that Pearson believed that digital did cause fatigue. In an exemplary instance of the interaction between these two publications Holt reported that Pearson had met with Dr. Diamond for a personal demonstration of the experiment.[xxix] Holt wrote, "HP [Harry Pearson] has made no secret of his fear and loathing anent digital. It was only natural, then, that his fears should be so neatly confirmed" (*Stereophile*, 4.8, 1980, p. 31). Aside from the fact that this example illustrates the close-knit nature of the audiophile community, it also highlights that the editors of these publications held firm opinions regarding digital audio as early as 1980.

Dr. Diamond's response in *The Absolute Sound* is interesting in and of itself. Dr. Diamond professed to be an ardent music lover who feared that digital technology was putting economic interests ahead of musicality. His response exudes audiophile sentiment. He asserts:

> One of the great therapies that we have on this earth is music. Our 90-odd years of recorded musical heritage is a treasure for all time. I wanted to make sure that this heritage would be preserved in a form that mankind could always use for its benefit. I wanted to demonstrate that we are recording priceless treasures (…) and it is important that in the future we will be able to use them. What a tragedy if later they are judged as useless because of the stress factor which I found was being introduced by the digital recording process! (*TAS*, 5.20, 1980, p. 392).

Here we see the attempt of a passionate audiophile to preserve his culture. Dr. Diamond's test may have been fallible, but the motivation behind it was pure. Many audiophiles who rejected digital did not do so simply because they feared it would democratize music listening, but also because they truly feared that it would harm music in some way. While they had to get creative in suggesting the ways that the digital process might damage the sonic experience, their reservations seem to have been genuine.

5.3.3 Digital and Agency

The chief issue surrounding the introduction of digital technologies for the audiophile was his lack of control. Audiophiles liked to feel that they contributed to the design of their gear. Having a say in innovation is a major reason that audiophiles prefer small-scale domestic manufacturers. Local designers and manufacturers were often hailed as the heroes of high-end audio, putting design ahead of economics. Perlman (2004) argues that preference for one brand over another is "derived in part from their association with designers who are thought of as creative geniuses and rugged

individualists" (p. 802). And many of these individuals, most notably Doug Sax, the founder of Sheffield Labs who we will discuss in more depth later, stepped up in defence of analog. But digital technology was being developed by large foreign firms, and worst of all the target market was a mid-fi clientele, not the high-end. While many audiophiles boycotted digitally mastered records analog versions of the same recordings were not necessarily forthcoming. Audiophiles often suggested that the reason that analog versions were not released alongside their digital counterparts was that direct comparison would illustrate the flaws inherent in the new medium (*TAS*, 4.16, 1979, p. 499; *TAS*, 6.21/22, 1981, p. 36-37; *TAS*, 7.27, 1982, p. 146; *TAS*, 8.29, 1983, p. 180-183). However this did not alter the fact that the industry was dictating change. Worse still, evidence was mounting that digital recordings did sound good on lower-end systems as the limitations of the gear hid digital's shortcomings. In 1979 Pearson lamented, "If indeed digital recordings sound 'just great' on conventional stereo systems, then I can foresee nothing to stop digital encoding of musical performances from becoming the industry standard and with appropriately horrific results for the audiophile" (*TAS*, 4.15, 1979, p. 306). The audiophile feared for his pastime as mid-fi acceptance of digital would force the obsolescence of his beloved analog gear.

While digital records were recorded using the new technology, they could be treated in the same way as analog recordings once they reached the home. But Compact Discs and their associated players altered the user's experience with the recording. CD players were a "black box" technology, designed to be "user friendly" by limiting potential interaction with the device. Haring (2007) argues, "When trying to sell devices to the largest possible market, manufacturers tend to reduce the knowledge needed by

users, creating simplified products that approach black boxes" (p. 11). The closed nature

of digital technology was reminiscent of the push-button technologies marketed to

women in the post-war period. The audiophile privileges activity and independence, but

CD players were designed for the lowest common denominator. Digital was thus equated

with a long string of feminized devices and was positioned in opposition to analog.

O'Connell (1992) argues:

> An analog turntable, tonearm, and cartridge is a joy to own and play with.
> The mechanical components that make up an analog playback system and
> the system's extreme sensitivity to fine adjustment provide an almost
> unlimited palette of modifications that will slightly change the sound
> obtainable from any record. But since the information stored on a CD is
> just a string of numbers, a ceiling is put on how much of it can be
> extracted and enjoyed. In the words of one reviewer, 'CD players lack
> sport. You plug them in and have nothing to do!' (p. 29).

A 1983 review of a Denon CD player affirms this when the reviewer notes, "my six-year-

old had no problem learning to operate it in four minutes flat" (*TAS*, 8.29, 1983, p. 48).

The lack of agency provided by digital technologies was problematic in and of itself. But

this problem is compounded when we consider that without an incessant need to modify

his gear, the audiophile has no claim for an individuated listening room. Digital

technologies thus threatened the allocation of a private refuge within domestic space.

5.3.4   Xenophobia

One trait that remained at the forefront of audiophile culture in the 1980s was a

xenophobic propensity. This is perhaps unsurprising given that the push to digitization

originated with foreign manufacturers. An interesting instance of intolerant sentiment

was witnessed in 1978 when a *TAS* reviewer compared Japanese digital technology to

American digital arguing that a recent favourable report commented on domestic gear.

He asserts:

> It should be understood that [my] 'special Report from Cleveland' was in no way an endorsement of Denon-style digital technology, and it should also be noted that the Cleveland recording machine was the American-developed and American-built Soundstream, rather than the Nippon Columbia machine used by Denon. To condemn all digital recording on the basis of the Denon records thus might turn out to be analogous to condemning all preamplifiers just because one happened to be displeased by, say, Thaedra (*TAS*, 4.13, 1978, p. 10).

The reviewer then goes on to argue that his preference for American-made gear is not unfounded as the Soundstream machine employed a greater sampling rate than the Denon. Here Denon, with its underlined connection to CBS, is correlated with mass-manufacturing and compromise, while Soundstream is linked with quality and ingenuity. When the sampling rate of digital was later standardized, audiophiles lamented that the frequency was selected based on economics not sonic quality and pointed their fingers at the major manufacturers (*TAS*, 6.24, 1981, p. 392).

An elitist and anti-foreign attitude was also apparent at *Stereophile*. In 1980 Holt argued "we have found few Japanese electronic components that can compete sonically with comparatively-priced domestic products" (*Stereophile*, 4.6, 1980, p. 69). For good measure Holt also denounces two major US manufacturers, CBS and RCA. Similarly in a 1985 editorial Holt asserts, "Microphones, phono cartridges, and audio electronics almost invariably sound pretty much the way their measured frequency responses suggest they would. (At least, they do if that response curve doesn't come packed in the box with a Japanese phono cartridge)" (*Stereophile*, 8.4, 1985, p. 5). Xenophobic sentiment was also evidenced in ads in this period. A 1985 ad for Belles Research pushes the limits of

propriety as it depicts an apple and a piece of pie next to chopsticks and a bowl of rice

separated by the caption "Going against the grain" (*Stereophile*, 7.8, 1985, p. 99). The

text beneath the image asks, "How can Belles Research, an American manufacturer,

compete against all these products from the Orient? Quite easily." A list of Belles

qualities including handcrafted products, careful testing, and quality components are then

extolled. The ad ends by asking, "Which of these competitors from the Orient offer you

all of this? None, not a single one. Some are even more expensive than Belles,

considerably more. What's accomplished quite easily by us, must be difficult for them."

Thus predilection for small-scale, domestic manufacturers remained a significant attribute

of audiophilia in the 1980s. It would seem too that manufacturers were keenly aware of

the audiophile preference for domestic gear and worked to position themselves as

American as apple pie.

An example of the support for small domestic firms was evidenced in 1981 as

TAS asked for reader input on the possibility of accepting manufacturers' advertising.

Several readers argued that *TAS* should accept manufacturers advertising as it would help

small firms stay solvent. One reader wrote:

> Ads from the esoteric end of audio would possibly result in the survival of
> some small manufacturers who are just starting out. Their ads would reach
> a large percentage of their intended market without having to compete
> with 4-color pages from Pioneer (*TAS*, 6.21/22, 1981, p. 23).

The use of the term "esoteric" is significant here as a fondness for ingenuity is as

important as locality when it comes to gear. In a very honest reply to a reader who

inquired as to why McIntosh equipment is denigrated by audiophiles despite being an

"old and distinguished American company," Holt admits, "McIntosh's unforgiveable

failing is that the company is Establishment" (*Stereophile*, 6.6, 1983, p. 59). It caters to the mid-fi clientele of *High Fidelity* and *Stereo Review*. Holt notes that McIntosh does not submit gear to the underground publications for review, refusing to coddle audiophiles and offer them a sense that they are valued. Audiophiles, in turn, view McIntosh equipment as "complacent" and "undemanding." Holt argues, "Whether any of this is actually true is less important to audiophiles than the fact that they *believe* it to be true" (*Ibid.*). McIntosh may be a domestic manufacturer but its products are too conventional for the perfectionist consumer. McIntosh's refusal to acknowledge the high-end consumer ensures in turn that the brand is shunned by the audiophile.

Interestingly while some local manufacturers ignored the audiophile community some of the major firms made a real effort to appeal to the high-end market. In a 1983 manufacturer's response to a scathing review of the Denon digital disc player, National Sales Manager Robert Heiblim submits a forthright (and frankly cunning) reply (*TAS*, 8.29, 1983, p. 196-197). Heiblim is obviously a very intelligent individual who knows how to appease finicky customers. He starts by noting the reasons that digital was developed: chief among them to replace the faulty vinyl storage medium. He admits outright that digital is imperfect, but suggests that its future potential is worth the current discord. He confesses that compromises have been made as cost-saving measures and argues that the reason the first generation of CD players was released was to demonstrate the "potential" of the product. Heiblim then appeals to the xenophobic tendencies of the audiophile by noting that the first CD players are being tested on a foreign (notably Japanese) market, as they are not yet considered good enough for the American public. Heiblim asserts:

At this time we will not market our current CD players here because we are not yet satisfied with our results, because it does not sound musical enough yet, and because although our player is as good as the rest, that is just not good enough for us (*TAS*, 8.29, 1983, p. 197).

Heiblim obviously did his research before writing this letter. Instead of defending the Denon product, Heiblim confirmed the details that the high-end consumer suspected but had never been able to prove, working to ingratiate Denon in the minds of audiophiles. He then suggests that musicality and the utmost in quality are the current concerns of the manufacturer. While I cannot say how audiophiles on the whole reacted to Heiblim's response it is worthy of note that Harry Pearson was impressed. He avowed, this "is one of the most extraordinary, candid, and honorable manufacturer's comments we have ever received. Denon's integrity shows the shame and dishonor of its competitors" (*TAS*, 8.29, 1983, p. 196). Certainly high praise considering Denon's foreign status and its association with generally reviled CBS. We see here that recognition of audiophile concerns can go a long way in winning over the high-end community.

5.3.5 The Digital Dilemma

In the early years of digital several small high-end manufacturers, most notably *Sheffield Labs* under the helm of Doug Sax and J. Tamblyn Henderson's *Reference Recordings* steadfastly refused to succumb to the digital craze. Sax was the most vociferous advocate of analog and he contributed several anti-digital articles to both *The Absolute Sound* and *Stereophile* between 1980 and 1984. *The Absolute Sound* hailed Sax as "One of the pivotal figures in the audio industry" and positioned him as the hero of the anti-digital resistance movement. Sax was one of the first to assert that digital recordings caused listening fatigue, arguing that manufacturers need to consider the long-range

ramifications before pouncing on a trend (*TAS*, 5.20, 1980, p. 449-457). Sax appeared to embrace his leadership role, writing several open letters to all high-end manufacturers starting in 1983 pleading for continued support of analog. He maintained that manufacturers needed to get vocal about their qualms with digital, arguing that while the CD player might solve the financial crisis facing the major manufacturers it would likely harm specialty designers as the uniform sound of CD hardware and software would eliminate the need for specialty retailers. Sax contended that the mainstream audio publications were in large part responsible for the popularity of digital, despite its poor fidelity standards. He wrote, "The only thing infinite about the CD is the bullshit" (*TAS*, 8.31, 1983, p. 23). In 1984 Sax attempted to form "The Analog Group" to "extol the virtues of analog technology" (*TAS*, 9.33, 1984, p. 9). Sax argued that the hype surrounding digital technology in the mainstream audio press was being met with little opposition, thanks in part to pressure from the collective of manufacturers known as The Compact Disc Group. The Analog Group would thus unite parties who believed that analog was the finest audio technology without favouring any one firm. Sax argued, "CD is organized and presenting a united front – we should do the same" (*TAS*, 9.33, 1984, p. 9).

However in the very next issue of *TAS* Harry Pearson lamented the loss of Doug Sax to the digital domain. Pearson wrote, "The virgin violated. After his extremely effective one man campaign to slow the digital tsunami, Doug Sax has gone digital over at Sheffield" (*TAS*, 9.34, 1984, p. 7). Pearson then goes on to suggest that greed was the motive behind Sax's decision. Later in the same issue Pearson printed a full-page photo of Sax about to be impaled by a giant syringe with the word digital printed along its side

(*TAS*, 9.34, 1984, p. 36). From that point on Doug Sax was officially ostracized in the pages of *TAS* and Pearson's anti-digital stance became that of a fundamentalist.

In what was likely a pre-emptive attempt to avoid Sax's fate, J. Tamblyn Henderson of Reference Recordings submitted a letter to Harry Pearson defending Sax and announcing that they too, would be producing digital recordings. Henderson argued that Reference Recordings was "*not* 'going digital,'" simply that they were going to release some Compact Discs in an attempt to stay solvent (*TAS*, 9.35, 1984, p. 9). Henderson argues for both himself and Sax:

> *We* are not defecting, our customers are. If you want us to continue in business making the records you love to hear, then give us your blessing to make CDs for those who want them. Remember, as Dr. Frank-N.-Furter in 'The Rocky Horror Picture Show' might put it, we aren't making them for you! (*TAS*, 9.35, 1984, p. 10).

Pearson's response is like that of a scorned lover. He replies:

> I would rather fail than feel compelled to put out a product I didn't believe in. You would not, evidently. So let's just say we have a difference of opinion. I have to live with the consequences of my decisions and you with the consequences of yours (*Ibid*).

In this period Harry Pearson was stalwart in his position towards analog, sometimes to the point where he gave the impression that he was a martyr for the cause. Pearson's stance on digital certainly earned him some supporters, but it also gained him many detractors, including at times J. Gordon Holt. The fundamental philosophical difference between Pearson and Holt lay in their dissimilar conceptions of musicality.

5.4 Musicality vs. Musical Accuracy

As previously noted both editors held that the goal of audio reproduction was the sound of live music in a concert hall setting. However there is little agreement as to how musicality should be gauged. For Pearson, musicality is akin to an emotional experience. Pearson admits, "no stereo system sounds at all like the real thing" and thus argues that it is the reviewer's job to evaluate whether colorations imposed on the music by the system are aesthetically pleasing (*TAS*, 4.14, 1979, p. 149-150). By contrast Holt's position is that musicality is a matter of sonic accuracy. Holt supports digital because it promises greater fidelity than any analog reproduction system (*Stereophile*, 4.4, 1979, p. 3). Both editors maintain that musicality is achieved through the playback system, yet each seems to be listening for disparate traits. Perlman (2004) argues:

> By positing the *technological* substrate for musicality, audiophilia flirts with paradox. For it is not at all clear how musicality can be a preeminent virtue of audio equipment without competing with accuracy. Assuming that nothing can be more musical than music, if the absolute sound is the sound of music itself, and if accuracy is fidelity to the absolute sound, then mustn't musicality be the same thing as accuracy? Or is musicality a certain way of falling short of accuracy, a fortunate sonic adulteration? (p. 791).

Perlman poses an interesting question here, one for which each editor holds a different response. Holt argues that the reason many audiophiles do not like digital is that it reveals how their systems colour the music. With (flawed) analog, the audiophile worked hard to create a system that complemented his recordings, resulting in the desired 'musicality.' Digital recordings lack these flaws but are oddly tainted by systems designed to enhance analog (*Stereophile*, 4.4, 1979, p. 2-14). Throughout the 1980s Holt consistently pressed two related points when discussing digital resistance. First, that many audiophiles who professed the sound of live music as the basis for sonic accuracy had not experienced live

music in the recent past, and second that an accurate playback system limits the potential

for tweaks. In 1980 Holt challenged readers who had not been to a concert in over a year

to invest in a ticket and analyze the performance as one would a stereo. Readers were

urged to remember that any apparent "flaws" at the live performance were the "real

thing" (*Stereophile*, 4.8, 1980, 2-3, p. 23). He argues, "If you come home with the feeling

that you really prefer the sound of your system, you may be a lost cause" (*Ibid.*). Holt

urges readers to remember that music, not technology, is the ultimate goal of audiophilia.

He notes, "Perhaps the compulsive-diddler audiophiles fear digital because it is so cut-

and-dried, and delivers the best possible sound without offering them the opportunity of

'adjusting' the sound to suit their personal taste (or lack thereof)" (*Stereophile*, 4.6, 1980,

p. 68).

In a later editorial Holt uses the term "sonic earmarks" to describe the unique

colourations imposed by a playback system (*Stereophile*, 7.5, 1984, p. 7). He argues that

the audiophile's predilection for separate components actually hampers sonic progress.

Because products must be designed to be compatible with myriad other components they

are sonically compromised. Holt maintains that in the past the audiophile really was able

to get better sound out of his gear by performing adjustments, as most equipment was

commercial grade. Hobbyists often understood the technology better than the

manufacturers. But many of these enthusiasts soon became designers and equipment

became more sophisticated. Thus the contradiction: audiophile culture values active

participation yet better equipment needs less adjustment. Holt argues that the culture of

audiophilia will need to change should it wish for greater accuracy. He maintains:

> If further improvements are to take place in perfectionist audio, we're
> going to have to re-think components. Mix-'n-match may be more fun, but

it's anachronistic and counterproductive. The way of the future is going to be component integration at the manufacturing level. And the sooner audiophiles realize this and accept it, the sooner we will reap the sonic benefits (*Stereophile*, 7.5, 1984, p. 7).

Thus for Holt, audiophilia is impeding progress by holding on to outdated customs and preferences.

On the other hand Harry Pearson embraces the 'sonic earmarks' that colour high-end gear. A clean signal is his ultimate goal, but considering the impossibility of such an objective, colourations possess varying degrees of desirability. Pearson often describes digital as hard, lacking air, deficient in high frequency harmonics, and wanting definition (*TAS*, 4.15, 1979, p. 305). He disparages digital for being "harmonically threadbare, cleaner, if you will, than the real thing, impressive, but entirely too analytical" (*TAS*, 4.15, 1979, p. 306). He continues, "There appear to be some curious amusical distortions, either in the process, or revealed by the process" (*Ibid.*). For Pearson musicality is more than accuracy and seems to be entrenched in the historical roots of audiophilia. Pearson values the colourations imposed by a system, to the point where an absence of these characteristics tarnishes the listening experience. It is interesting that Pearson uses the phrase "the real thing" above, as it would seem that Pearson is an example of an audiophile who, according to Holt's contention, equates veracity with the sound of his system rather than the live musical experience.

A direct comparison of Holt and Pearson's positions vis-à-vis digital does appear to demonstrate that they are experiencing the same phenomenon in disparate ways. Holt is able to put faith in the manufacturer, and to a certain extent the scientific measurements behind the technology. He is willing to give up a degree of agency in exchange for

greater fidelity. Conversely Pearson is not ready to hand control over the output of sound to the manufacturer. He must remain a co-producer in order to feel active in musical culture. Pearson seems to fear the democratic potential of digital as well as a loss of heritage. Analog technologies are imbued with a long sense of history that cannot be reallocated to their digital counterparts.

It should be noted that Holt's optimism around digital recording faded as the CD player became increasingly common. Holt's reticence was likely in part because of the reaction of other audiophiles who were less willing to jump on the digital bandwagon, but also because he felt that manufacturers, riding on the coattails of their own advertising, neglected recording technique in the wake of the 'perfection' of digital. Holt cites substandard miking technique, digital mastering, and tape-to-digital conversion as glaring faults of most digital recordings. He argues:

> The CD is absolutely merciless in its ability to spotlight everything that was done to musical sound from the time it reached the (multi) microphones to the time it cleared that last analog-to-digital converter. Most commercial recordings cannot stand that kind of close scrutiny. And most listeners cannot stand what that kind of scrutiny reveals (*Stereophile*, 7.1, 1984, p. 5).

For Holt the digital medium itself was loaded with potential, however he laments that the majority of manufacturers are only interested in the status quo. Thus audiophilia here comes full circle. The elitist and supremacist leanings of the audiophile take centre stage even with the availability of a promising new technology. No matter the enthusiast's stance on digital, it all comes down to the 'us vs. them' audiophile vs. the mass mentality.

5.5 Summary

By the 1980s anti-mass sentiment was much more prevalent than chauvinism in audiophilia. Audiophile culture had successfully maintained its predominantly male constituency and thus did not need to differentiate its practices from those of women in a transparent manner. Few audiophiles felt the need to vocalize their contempt towards female participation in this era, yet women were hardly encouraged to become involved. Even when Pearson hired Enid Lumley as a female columnist he subtly undermined her stature by putting her in charge of "The Bargain Basement." Audiophilia's stance toward women in this period is much like that of the all-white golf club: overt bigotry is not condoned, but invitations will not be extended. It is my contention that by this time mass culture was commonly equated with femininity. Mass produced audio commodities were denigrated as unsophisticated products designed merely to entertain. For audiophiles all commercial gear is regarded as simplistic and naïve, akin to the "push-button" technologies popularized after the war. These technologies are held in direct contrast to the complex systems of the audiophile, who imagines himself as an audio pioneer.

The reaction of audiophiles to the introduction of digital audio was somewhat paradoxical. Considering the value placed on technological knowledge, one would expect that a scientific understanding of digital would have reinforced ideals of masculinity. However the top-down dissemination of digital audio combined with the 'black box' format of the technology served to accord increasingly more control to manufacturers whilst limiting user agency. A major error in the introduction of digital to the high-end community was its positioning as "perfect." Early discourse surrounding digital suggested that all players would sound the same. This went against audiophile ideals of

elitism and stratification in playback quality. Claims of perfection at once disregarded the audiophile's need to actively engage with the technology while suggesting that the experience of audio was to become democratically accessible.

Though it soon became apparent that all CD players were not created equal it also became clear that CD players sounded better on lower-end systems. This threatened the financial and emotional investment that the audiophile had put into his gear. Years of knowledge accrued by the audiophile could be rendered obsolete by the acceptance of digital. Worse still, the success or failure of digital audio was in the hands of the mid-fi market rather than at the mercy of high-end enthusiasts. Audiophiles thus called upon the ambiguous quality of "musicality" to debunk the "perfection" of digital audio. Since musicality cannot be clearly defined the audiophile was able to employ the term at will to explain his qualms with digital sound.

Audiophiles in this era demonstrated a desire to be coddled by manufacturers. Harry Pearson's positive response to the letter submitted by Denon's National Sales Manager suggests that audiophiles were not completely closed to the idea of digital audio, but rather that they wanted to be given preferential treatment by manufacturers. Audiophiles sought recognition for their superior knowledge and wanted to be held in higher regard than the mainstream. While not all audiophiles were distrustful of digital technology even those who were initially optimistic, such as J. Gordon Holt, eventually lost enthusiasm for the process. Digital offered the opportunity for increasingly faithful sound reproduction, however it soon became clear that the industry was less interested in sonic perfection than it was in optimizing profits. The standards set by the recording industry for digital audio were lamented by the high-end enthusiast who understood them

as compromise. Many audiophiles called upon the supremacy of their ears, claiming the ability to hear the inaccuracy of digital sound.

What we must recognize about the introduction of digital audio is that regardless of whether one was for or against the new format, digital provided the audiophile with new fodder for discussion and debate. Participants were presented with new material with which to demonstrate their knowledge of audio. The philosophy of "educated consumption" was thus maintained. Letter writing campaigns and boycotts bonded the community together, reinforcing the 'us vs. them' mentality of the high-end towards the mainstream. Consequently while digital technologies may have temporarily threatened the culture of high-end audio, their introduction may actually have strengthened the ideological base of the community.

6: CONCLUSION

The culture of audiophilia has changed little since its inception despite numerous technological and social transformations. Audiophilia remains a predominantly male, elitist culture. The high-end community continually positions its activities against those of the masses. I have tried to demonstrate throughout this work that mass culture was increasingly equated with femininity in the modern era. This correlation was especially strong as regards audio technologies as the mainstream audio manufacturers commonly adapted their products to appeal to the desires of women.

A specific sub-group of men have always approached audio technologies from a unique point of view. On the eve of the emergence of the phonograph a new emphasis on auditory skill was cultivated amongst professional men. The "audile techniques" stemming from medicine and telegraphy were distinct in that the former privileged scientific knowledge learned in a formal setting, while the latter emphasized a pragmatic disposition towards listening. However both required concentration and were considered important activities with significant consequences. We see evidence of both forms of knowledge acquisition in contemporary audiophilia as well as a belief that good music listening is a solitary activity worthy of an individuated acoustic space.

Prior to recording technologies professional musical performances were experienced in the public sphere, the domain of the man. Music appreciation was a high-art form associated with elitism and masculinity. The phonograph problematized this conception by bringing celebrity performances into domestic space. Early advertisers,

especially Victor, recognized the importance of appealing to the housewife in order to sell phonographs. Victor's marketing strategy emphasized status through visual indicators, such as Red Seal labels to denote opera recordings, use of star imagery in advertisements, and the aestheticization of the phonograph into furniture. These techniques prioritized visual appeal over sonic clarity and led a subgroup of male enthusiasts to reclaim their pastime by privileging fidelity over other concerns. Mass manufacturers were understood to compromise sonic quality in order to appeal to feminine desires and were thus denounced.

Concomitant with the transformation of the phonograph into a piece of furniture was the emergence of radio technology. Radio tinkering was an intricate hobby that could not easily be learned and offered audio enthusiasts the opportunity to actively engage with sound technology. Radio hobbyism required participants to build their own transmitters from myriad parts, an untidy pursuit that did not fit well with feminine notions of shared domestic space. Enthusiasts were thus relegated to peripheral areas of the home. Because radio hobbyism was largely a solo activity that took place at the margins of domestic space women were rarely exposed to the vocabulary or procedures required for participation. The solitary nature of radio tinkering advanced the idea that audio hobbyism was a serious activity worthy of an individuated listening space, in contrast to the entertainment associated with program listening. The conception that radio tinkering was a valuable pastime with genuine consequences was fostered by the important role the technology played in both the First and Second World Wars.

The new importance accorded to technical hobbyism in the post-war years resulted in an explosion of commercial grade audio kits in the 1950s. Initially these kits

required a certain amount of technical savvy for participation, though more complete kits soon penetrated the market. The increased interest in audio technology in this era at once legitimated the pastime while threatening the sanctity of the culture's values. The adoption of the notion of "high fidelity" by mainstream manufacturers, who were already associated with feminine ideals, offered additional incentive for the rejection of mass-produced commodities by high-end aficionados. The standardization of manufacturing processes in this era was an early threat to the high-end community as it lowered production costs resulting in greater accessibility. The fact that many of the major firms promoting democratic ideals were of foreign origin resulted in a marked xenophobia.

In the 1950s high-end enthusiasts looked to their technical knowledge to distinguish their practices from those of newcomers. Over time the ability to build gear became less significant as more sophisticated equipment became available, but an emphasis on knowledge was maintained. Audiophiles were expected to understand sonic parameters, if not in scientific terms then at least on an experiential level, and to demonstrate their commitment to high-end audio culture through monetary expenditure and the individualization of their gear. While not all audiophiles possess the scientific background required to meaningfully adjust their systems, most audiophiles will justify their tweaks using scientific jargon. The use of scientific terms to explicate subtle adjustments underlines the audiophile's belief that he is a pioneer. Audiophiles do not believe their knowledge serves only in commodity selection, but rather that their activities may have important and lasting consequences in the audio field.

While audiophiles privilege technical knowledge, most also claim to possess superior hearing abilities. The belief that he can hear what others cannot helps to justify

the enthusiast's need for more expensive equipment. This is complicated by the fact that audiophiles will often claim to hear things that cannot be supported by scientific evidence (and that sometimes can be positively disproven by science). From an outside perspective the double valuation accorded technical and experiential knowledge is problematic, since these traits are often at odds. However we must remember that audio commodities are imbued with social and cultural significance. Audiophiles will claim to select their gear based on the fidelity of the component, though their decisions are often based as much on the merits accorded the designer as the output of the sound. The audiophile evaluates all equipment based on ideals of "musicality," a concept that is purposely solipsistic and entirely subjective. The accuracy accorded to the golden ear and the de-valuation of scientific measurements is a way for the audiophile to retain authority over the audio commodity.

Requisite for participation in high-end audio is a demonstration of cultural capital. The shared knowledge base of the audiophile is the bonding force of the community and is essential for keeping outsiders at bay. The primary mode of information exchange in audiophile culture is through specialty magazines. Within these forums audiophiles spend a great deal of time justifying their beliefs and discrediting oppositional viewpoints. Each audiophile is expected to stay abreast of all events within the community. However the culture is hardly homogenous in its beliefs. It is not so important that audiophiles agree with each other, so much as they should be able to articulate rational opinions using commonly accepted information. Audiophiles must also recognize their common enemy: the mainstream audio industry. The high-end community always views itself in opposition to the masses. The audiophile considers the mid-fi listener to be a cultural

dupe at the mercy of the major audio manufacturers. The mid-fi listener does not possess the necessary knowledge base and is shunned.

Women also lack the essential knowledge for participation. Popular discourse surrounding audio has been gendered throughout the history of these technologies. Articles and advertisements aimed at women have tended to focus on aesthetics and star power, while texts aimed at men emphasize musicality and technical savvy. The persistent positioning of audio technologies according to disparate ideals has served to maintain the almost uniform masculinity of audiophile culture. Perhaps as a consequence of this uniformity, contemporary audiophiles are no longer blatantly sexist except in instances where women are presented in an authoritative light. Anti-feminine sentiment is subtle, though I have tried to demonstrate that the feminine is analogous with the mainstream in audiophilia.

Audiophile beliefs shift with each perceived threat. In postulating the indefinite concept of musicality as the end goal of high-end audio, the community is able to revise its philosophies as necessary to cope with change. Digital technologies threatened the audiophile because they limited his engagement with the artefact while according increased authority to the manufacturer. The continual preference of component parts by audiophiles despite arguments that sophisticated integrated units could offer greater sonic accuracy serves to demonstrate the audiophile's attachment to the idea that he is an "expert user." Here we witness the major contradiction of high-end audio culture. While the audiophile argues that his ultimate goal is perfectly recreated concert hall sound, this objective is contingent on the preservation of his ideals. It would seem that the defence of the audiophile's knowledge base, the conservation of elitist principles, and the maintenance of the demographic composition of the culture are equally, if not more important than the realization of 'the absolute sound.'

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NOTES

[i] This may have been further complicated in my case by my gender. As I will show in this thesis, audiophiles are loath to disclose their specialized knowledge, especially to women.

[ii] Johan Schot and Adri Albert de la Bruheze (2003) present the concept of the "mediation junction:" a place "at which consumers, mediators, and producers meet to negotiate, articulate, and align specific technical choices and user needs. It is an area where agenda building and technology development become connected" (p. 234). This will be discussed later.

[iii] See Holt's use in *Stereophile*, 5.5, 1982, p. 28.

[iv] Since Perlman's work builds largely on that of O'Connell and the two use similar source material, I will consider them together rather than separately.

[v] This information is gleaned from reader polls of audio magazines.

[vi] Pearson argues, "We must not think that present-day measurements are capable of describing all that we hear" (*TAS*, 4.15, 1979, p. 279).

[vii] See for example *Stereophile* 7.6, 1984, p. 40-42.

[viii] Doug Sax and his *Sheffield Labs* is a notorious example of the protagonist turned villain in the 1980s. *Reference Recordings* was similarly castigated in the same era for releasing digital recordings (*TAS*, 9.35, 1984, p. 9-10). Both will be discussed in a later section.

[ix] See for example *Stereophile*, 4.8, 1980, p. 30-32.

[x] Holt's assertion here is in an editorial rather than a response to a letter, but the sentiment is the same.

[xi] The letters section in *TAS* often runs over 20 pages (see for example issue 5.20, 1980); the letters section in *Stereophile* is not quite as elaborate, though several full pages are devoted to reader opinions.

[xii] A good example of a reader 'solving' an audio dilemma can be found in a 1980 issue of *TAS*. Letter writer R.W. Kritzer Jr. suggests that digital is not imperfect, rather it is so accurate that it is picking up distortions that analog did not reveal. "What we are hearing, then, is an absolutely accurate representation of an originally distorted signal, distortions that analog recording (with present equipment) does not reveal. Or somehow smoothes out" (*TAS*, 5.17, 1980, p. 9).

[xiii] For example a 1962 Marantz ad (*High Fidelity*, January 1962, p. 6) uses male gendered language: "chariots," "automobiles," "sundials," "chronographs," "crossbows," "hunting rifles;" and male traits: "dependability," "perfection," "unquestioned," to position its products. The technologies mentioned above were developed by and for man to help him be the best, most evolved creature on earth. It is notable that the terms used are elitist in nature: "automobiles" not "cars", "sundials" and "chronographs" not "watches" and "clocks", "hunting rifles" not "guns". This elitist perspective is echoed in the cursive print of the headlines in the text. The ad further targets an exclusive clientele with its claims of "craftsmanship" and "conscientious testing and adjustment," positing the superior quality of the product. In this ad the male gendering serves as a source of distinction. Here masculinity is used subtly to tie maleness to important moments in history and to ideals of quality. On the other hand a 1966 University Sound ad (*High Fidelity*, January 1966, p. 21) depicts a close-up of a young woman's sly, smiling face and the caption "Enjoy it." The text emphasizes styling and appearance and contains virtually no meaningful technical information, though quasi-instructive terms such as "patented super tweeter" and "exclusive mass-loaded long throw woofer" give the illusion of offering detail. The message of this ad, clearly not geared at an audiophile clientele, is simple: you don't need to understand it, just "enjoy it." In a great example of gender roles and audio a 1962 Roberts ad (*High Fidelity*, January 1962, p. 34) depicts recording star Doris Day and famed composer Percy Faith each with a Roberts tape recorder. Despite her professional orientation, Doris Day appears as an object and icon. She does not engage with the machine, rather she adorns it. On the other hand Percy Faith is actively operating the equipment.

Moreover the female/home, male/work dichotomy is accentuated as Day is shown in a study or living room, while Faith is depicted in a recording studio.

xiv See Thornton's (1995) views on how subcultures position themselves in opposition to an indeterminate 'other' or 'mainstream.'

xv DXing was a radio practice in which hobbyists searched the ether for far distant stations (Douglas, 2004, p. 24).

xvi Initially the term *gramophone* denoted a disc-playing machine, whilst *phonograph* referred to one using cylinders. By the late 1920s the cylinder was all but obsolete and the term phonograph was adopted for the disc player in the United States (Katz, 2004, p. 194).

xvii "Audiencemaking" is the title of the book housing Seifert's article by James S. Ettema and D. Charles Whitney.

xviii In the *Saturday Evening Post*, Seifert's source.

xix Additionally, Seifert notes that Victor's ads were much larger than those of its competitors – often a full page in contrast to the 1/4 and sometimes 1/16th page ads preferred by Edison's National Phonograph Company (Seifert, 1994, p. 197-199).

xx Haring suggests that these characteristics are self-perpetuating. Ham operators were of middle to upper class descent because the hobby was an expensive pursuit. The level of education can be correlated to class or to an avid interest in technical activities. Education and skill lead to strong careers and above-average incomes. Racial uniformity can also be related to these socioeconomic factors (Haring, 2007, p. xii).

xxi QST is radio code for "calling all members" (Haring, 2007, p. xvi).

xxii The origins of the term "ham" are unknown, though several speculations exist including that early radio enthusiasts were known to perform or "ham it up" on the air, that amateurs working in code were clumsy or "ham fisted," that ham is shorthand for "amateur" or "a.m." radio, or that amateurs used old smoke houses or "ham shacks" to house their gear (Haring, 2007, p. xvii).

xxiii Haring (2007) cites a 1940 "tribute to the radio amateur" published in *Amateur Radio Defense* entitled "He Also Serves." The homage depicts a brawny man standing upon a mountaintop looking over his city and speaking into a radio receiver. He is clearly participating in matters of surveillance and security. The accompanying text is an eight-verse poem extolling the amateur operator. The first stanza reads, "UNSEEN, unsung, 'he also serves' And from his duty never swerves! Alert to ev'ry call for aid, Dependable, and unafraid!" The following stanzas depict the radio operator as a "patriot," a selfless hero concerned only with the wellbeing of his nation. The tribute concludes, "For if we rule that he must go, We quench the fires which foil our foe. Heed well his plea, his simple prayer, That he be kept upon the air!!" (*Amateur Radio Defense*, November 1940, p. 2 in Haring, 2007, p. 98).

xxiv *Strereophile* founder J. Gordon Holt had previously served as technical editor at *High Fidelity*. He left the commercial press because he felt that advertiser revenues commanded positive reviews (Atkinson & Holt, 2007).

xxv *Stereophile* was founded in part as a reaction to advertiser-driven audio publications (see previous note). Initially the publication was free of manufacturer advertising though Holt did accept a limited number of hardware ads during the period of my examination, likely due to extreme economic need. *TAS* did not accept manufacturer's ads until 1981.

xxvi See for example the debate surrounding a letter subtitled "Digital Disgust" by Lami Panken (*TAS*, 4.13, 1978, p. 9) that was met with a response entitled "Fidelity and Digital Sound" by Stephen D. Stearns (*TAS*, 4.14, 1979, p. 152) that was followed up by a guest article by Stearns entitled "An Introduction to Digital Audio" (*TAS*, 4.15, 1979, p. 297) that resulted in reactions from Lami Panken as well as several other readers (*TAS*, 4.15, 1979, p. 300-302).

xxvii CX encoded records professed to expand the dynamic range of albums while reducing noise using a $100 decoder. The idea behind CX encoded records is that they would also sound perfectly acceptable without the decoder. Audiophiles vehemently disagreed with CBS' claims. They argued that the CX system was a sham, claiming that the motive behind CX was financial. Cheaper vinyl could be used to record albums with CX compression. Audiophiles were incensed by the introduction of yet another technology aimed at the lowest common denominator (*TAS*, 7.25, 1982, p. 81-82, p. 86-88).

xxviii See for example *TAS*, 9.33, 1984, p. 21.

xxix Interestingly, Holt's source proved to be mistaken and Holt was forced to print a retraction. However this does not negate the point that these magazines were intertextual and that the views of the two editors were in opposition to each other.