

Post-Fidelity: A New Age of Technological Innovation and Music Consumption

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Abstract
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Since the popularization of the iPod, the ideal recorded music consumption experience for most consumers has become one of quantity, variety, ease of use, and visual style. I focus on the contrast between these values and the emphasis on fidelity that dominated discussions of sound reproduction throughout the 20th century. I first demonstrate the extent to which fidelity dominated innovation and marketing during the 20th century, showing that even new devices which did not improve fidelity were advertised to give the impression that they did. I then examine the iPod as a breakthrough product, which changed the format of music and how we define the ideal listening experience in this post-fidelity era. Finally, I contextualize the importance of this trend in consumer culture: using print and internet sources to argue that even audiophiles have begun to value these other qualities as much or more than sound quality.

Table of Contents

List of figures.....	iv
Introduction.....	1
What is Fidelity.....	2
Who Are the Audiophiles.....	4
Advertising.....	6
I. A Brief History of the Fidelity Era.....	9
The Birth of Recording: How to Improve on Perfection.....	9
Magnetic Tape, the LP, and the Birth of Audiophiles.....	14
The CD: How to Improve the Sound When You Can't See the Disc.....	18
II. New Priorities: Winamp, Napster, MP3s, and the iPod.....	25
Early Portable Players.....	28
The MP3, Napster, and Winamp.....	32
The iPod Introduction.....	39
III. Audiophiles in the Post-Fidelity Age.....	46
Audiophiles: Who and Where Are They.....	47
DVD-A and SACD: Fidelity at the turn of the Century.....	53
The High-End Products of Post-Fidelity.....	56
iPod As the Center of Home Music.....	62
Bibliography.....	67

List of Figures

1.1 Victor Phonograph Advertisement.....	11
1.2 Victor Victrola Phonograph Advertisement.....	13
1.3 Pickering Advertisement.....	17
1.4 Talwar Advertisement.....	21
1.5 Polk Audio Advertisement.....	22
1.6 Bose Advertisement.....	23
2.1 Winamp 2.0.....	35
2.2 Winamp Using Star Wars Skin.....	35
2.3 Apple iPod Advertisement.....	40
3.1 Whiskey! Tango! Foxtrot! Comic Strip.....	47
3.2 Definitive Advertisement.....	57
3.3 Athena Technologies Advertisement.....	59
3.4 B&W Speakers Advertisement.....	61
3.5 Maxell Advertisement.....	62

Introduction

“The apparatus is practically perfected so far as the faithful reproduction of sound is concerned”¹

Countless modern companies would love to claim that they have perfected faithful sound reproduction, now known as fidelity, but few would dare make statements as bold as Thomas Edison in 1888. For over a century after Edison’s proclamation, numerous innovators have sought to create perfect sound reproduction. From Edison’s wax cylinders to the CD, all innovations were made, or declared to be, in the name of improved fidelity. A group of consumers called “audiophiles” appeared in the 1950s, and helped push this stream of innovation forward by championing the search for perfect fidelity, even redesigning or rebuilding entire rooms in their house to improve the sound of music.

In an article examining fidelity during the first decades of recorded music, Emily Thompson argued that Edison’s statement related fidelity to function. With Edison’s original intention that the technology be used for business dictation, the product actually was perfected in terms of fidelity, with users able to comprehend spoken words.² I will argue that at the end of the twentieth-century the same happened with regard to music: fidelity reached a point where consumers do not seek further improvement. Instead,

¹ Thomas Edison, “The Phonograph and its Future,” *North American Review* 126 (May-June 1878): 530.

² Emily Thompson, “Machines, Music, and the Quest for Fidelity: Marketing the Edison Phonograph in America, 1877-1925” *The Musical Quarterly* 79, no. 1 (Spring, 1995): 131-171.

consumers look for improvements in other aspects of their products, such as quantity and accessibility of the music, as well as visual aesthetics and style. I call this new era of consumption and innovation post-fidelity, where sound quality has moved from the primary focus of products and consumers to being one among many.

What Is Fidelity

A dictionary definition of fidelity parallels Edison's statement: the degree to which a recording is a faithful or accurate reproduction of sound, but as the industry has grown and various recording techniques have been developed, the concept of fidelity has been problematized, meaning different things to different people. Aden Evens in *Sound Ideas* argues that the term fidelity has been corrupted through appropriation by the group of "(mostly) wealthy, (mostly) white, (mostly) men called *audiophiles*."³ In this work he specifically refers to the readers of *The Absolute Sound*, for whom fidelity means the recreation of a live performance that the recording represents. This model works well for some music, especially Western classical music, but fails when applied to other genres, including a lot of popular music in the United States, which is recorded before being played in live performance.⁴

For my purposes, "fidelity" will be used in the abstract. Instead of a specific performance, it will refer to the sound envisioned by the creator of the recording, in most cases a sound engineer. Complicating any assessment of fidelity is the number of locations at which fidelity may be compromised: first, in the recording equipment itself,

³ Aden Evens, *Sound Ideas: Music, Machines, and Experience* (Minneapolis: University of Minnesota Press, 2005): 7.

⁴ One well known example of this is Paul Simon's song "You Can Call Me Al," where a part of the bass solo was created by recording engineers playing the tape backwards. Bakithi Kumalo, the bassist, later learned to play what was already on the recordings for live performances. This is detailed in the documentary video Paul Simon, *Classic Albums: Paul Simon, Graceland* (Eagle Rock Entertainment, 2005).

second the format on which it is sold to consumers, and finally the equipment through which the sound is reproduced.⁵ This abstract definition of “fidelity” will also apply to comparisons between equipment, referring to the potential for fidelity. In some cases I will use the alternative term “sound quality,” which has replaced fidelity in many circles. In my discussions of the post-fidelity market, I will often use the term high-end to describe equipment when discussing products made in the post-fidelity era, to capture the changing emphasis away from sound quality while maintaining price.

The most important distinction in fidelity for my study concerns the relationship between the Compact Disc (CD) and MP3 formats. This relationship is also the most clearly defined, with MP3s being lower fidelity than CDs. MP3s were created as a method of storing sound files more efficiently than traditional CD audio. Music files on CDs are relatively inefficient from a storage perspective because the format tries to account for all sounds within a wide frequency range. The MP3 format retains this wide frequency range, but cheats with what sounds are stored by removing those which are less likely to be perceived by the listener. For example, at the moment of a cymbal strike, most other sounds will not be heard and therefore need not be stored. While highly effective at saving space, when MP3s are compared to original CD files the difference in sound is perceptible. Because MP3s are made by programs which have varying degrees of effectiveness, one cannot point to ways in which all will be different from the original recording, but the format is a type of lossy compression, meaning even those which do the best must remove some information, in this case representing sounds.⁶

⁵ Analog formats tend to degrade with use as well - the same record will never sound the same twice.

⁶ There are formats which provide lossless compression (maintains CD quality sound); FLAC and Apple Lossless are the two most common, which I will discuss where appropriate. These, however, are

Who Are the Audiophiles

The importance of the change to post-fidelity modes of innovation and consumption is highlighted by its acceptance from audiophiles, the consumers who traditionally pushed the industry for higher-fidelity products. When the term and publications for the consumers first appeared in the 1950s, audiophiles were differentiated mainly by degree of interest and activity. In contemporary terms, there is no single audiophile community, and I will use audiophile as an umbrella term, uniting all types of consumers who seek to improve the sound of music, movies, video games, etc. through active and continued participation in communities expressly for this purpose.

The use of audiophile as an umbrella term is derived from Marc Perlman's very wide definition of audiophiles in "Consuming Audio." Perlman's study, however, looks at a very specific subgroup of the audiophile community defined by those who spend over \$5000 and personally adjust or tweak their systems, leaving no concise definition of audiophiles. Other scholars, such as Aden Evens, use audiophile to refer to only small and often extremely ideological communities. Evens blames the "audiophiles," defined as readers of *The Absolute Sound*, for corrupting notions of fidelity, to mold it to their specific tastes and ideals.⁷ Overall, scholarly attention has focused on these small groups of extremists, never looking in detail at the numerous other communities of consumers who I will classify as audiophiles. The most important and largest community is made of

infrequently used because the compression is only about 50 percent compared to 90 percent for standard MP3 files.

⁷ Marc Perlman, "Consuming Audio: An Introduction to Tweak Theory," in *Music and Technoculture* edited by Rene T. A. Lysloff and Leslie C. Gay, Jr. (Middletown, CT: Wesleyan University Press): 346-357.

consumers interested in home theaters, combining audio and video, which I will show in chapter three continues a tradition dating back to the 1960s.

Writers for various popular press outlets frequently comment on the decline of the “high-fidelity market” by limiting their definition of audiophiles to the small and extreme subsection of the spectrum discussed by Evens. Ron Harris, writing for the Associated Press, described audiophiles’ interest in absurdly expensive equipment for record players.⁸ In *The New York Times*, Anthony Tommasini defined audiophiles as “the consumers who opposed the Compact Disc.” These limited definitions, however, leave out a majority of the consumers currently buying and interested in high-end audio equipment, a portion of whom I believe qualify as audiophiles.⁹

In my discussion of post-fidelity consumption, I will take a much broader approach to audiophilia, seeking to understand the diversity of interests and examining numerous communities, using audiophile as an umbrella term. Instead of basing my assessment on how much money is spent, or how these consumers treat their equipment, I will identify them through participation in various communities, and their commitments to values held by these communities, both as readers of publications (print and online) and participants on internet forums and discussion boards. My investigation of these communities will examine a combination of articles in these publications, discussions on internet message boards, podcasts associated with leading message boards, and surveys I conducted through the message boards. I will also make distinctions or connections in

⁸ Ron Harris, “Digital Music Libraries and Devices Portend Death of Hi-Fi Sound,” *SFGate.com*, (April 17, 2007) <http://www.sfgate.com/cgi-bin/article.cgi?f=/n/a/2007/04/17/state/n132423D15.DTL> (Accessed July 9, 2008)

⁹ Anthony Tommasini “Hard to Be an Audiophile In an iPod World” *The New York Times* (November 25, 2007).

how these changes affect different subsections of the audiophile community as a whole, which can most easily be seen through a comparison of print publications and their target audiences. The main publications I will examine are *The Absolute Sound* and *Stereophile*, which cater to the extreme end of audiophiles, many of whom have retained their LP players and happily tweak equipment, *High Fidelity*, which appealed to a middle segment: being accessible to the public, but still more “serious,” and *Stereo Review* and *Sound and Vision*, which cater to the more general community members who may not even consider themselves audiophiles. The two internet communities I will focus on are Audioholics and AVSForum.¹⁰

Advertising

My examination of what audiophiles say and write will accompany a study of advertising throughout the history of sound reproduction technologies. In *Reading Ads Socially*, Robert Goldman suggests that advertisements should be read for their sociocultural consequences which “go beyond the corporate bottom-line.”¹¹ In my examination, I use advertisements as a demonstration of ideology focused on sound reproduction, and in the case of Apple’s introduction of the iPod, a conscious attempt to overthrow the prevailing ideology of fidelity. Furthermore, the success of this campaign will be demonstrated by the use of post-fidelity strategies in more recent advertisements for products such as speakers, which have been the primary product for improving household fidelity since the popularization of the CD.

¹⁰ Gene DellaSalla, *Audioholics* (April 18, 1999) <http://www.audioholics.com/> (Accessed July 9, 2008). *AVSForum* (June 16, 1999) <http://www.avforums.com/> (Accessed July 9, 2008).

¹¹ Robert Goldman, *Reading Ads Socially* (London: Routledge, 1992): 2

The first chapter of this study details selected major innovations in the fidelity era, from the beginning of the phonograph industry through the compact disc. Numerous examples will be given to demonstrate the historical emphasis on fidelity, even in cases where an actual upgrade either did not exist (the Victrola machine) or was controversial (the CD). Advertisements and articles will reveal that these products promoted upgrades in fidelity instead of other features where improvements were clearly visible.

The second chapter focuses on the birth of the post-fidelity age, centered on the iPod as a breakthrough product. Earlier personal portable music devices, such as the Walkman, will be explored as a clear part of the previous, fidelity-based, age. I will also examine the background of the iPod through trends in MP3s and computer-based music consumption, focusing on Winamp and Napster as the two programs which laid the groundwork for post-fidelity modes of listening. My study of the iPod itself will highlight its public introduction in a 2001 press conference, where Steve Jobs and Apple redefined the music consumption experience away from fidelity. I will present the early reception of the device in both mainstream media and specialty audio publications, which emphasize this transition that the iPod was gradually leading.

The third chapter describes the wide scope of the change to post-fidelity consumption by examining the high-end audio equipment market targeted towards audiophiles, who traditionally should be the leaders in resisting the new non-fidelity values, but have also abandoned the emphasis on fidelity. I will begin with an expanded discussion of who qualifies as an audiophile in the new age of consumption. The new preferences of these consumers will be examined through readings of advertising marketed towards the group, followed by a survey of new types of products that turn

MP3s into the standard format for in-home music consumption. Lastly I will examine discussions both in articles and inside internet forums for the community. Combined, these examples will demonstrate the scope of the change that continues to take place concerning modern consumption of music.

I. A Brief History of the Fidelity Era

The sound reproduction industry has succeeded by maintaining a steady stream of new and innovative products throughout its history. The first century of innovation was defined by improvements in the fidelity of recordings. The emphasis on fidelity can be seen in the workings of the products and methods of advertising new innovations to consumers. This chapter is divided into three sections which align with three distinct eras in the technological history of recorded sound. The first period, beginning with Edison's invention of the phonograph, is characterized by treating recordings as the equivalent of live performances. The second period begins after the Second World War with the importation of magnetic tape technology and the popularization of the Long Playing disc. This period features the introduction of audiophiles, or consumers who pushed the industry to develop higher fidelity recordings and equipment, even when the average consumer may not hear a difference. The third section examines the introduction of the compact disc in the 1980s, and its effects: splitting the audiophile community and moving the priority in fidelity-based development to loudspeakers.

The Birth of Recording: How to Improve on Perfection

During the first era of recorded sound, listeners had trouble differentiating between the concepts of live and recorded sound, putting the two on an equal footing. Many consumers listening to recordings in their homes treated the recordings as live performances, with a family gathered around the "instrument," watching as it worked,

often applauding when finished.¹² Advertisements took advantage of this confusion, promoting performers who signed exclusive contracts, or presenting live concerts which paired a performer with a recording. Leading companies prospered, offering new models of their products every year, until the introduction of the radio, which offered free “live” music with higher quality.

Sound recording began in 1877 when Thomas Edison introduced the phonograph using tin-foil cylinders.¹³ For Edison the machine was “perfected” in regards to sound reproduction, but he had not yet considered music as a use for the machine. Edison first tried to market the technology for businesses, toys, and to record the final words of the elderly, all tasks for which the level of fidelity was more than sufficient, requiring only comprehension of spoken words. The technology found little immediate support, and Edison gave up on the invention until a decade later, when he re-introduced the phonograph again as a business machine, mainly for aural letters. Phonographs entered the music business through smaller entrepreneurs who placed the machines in hotel bars and saloons where patrons could pay a nickel to hear the newest songs.¹⁴

By 1901 the phonograph gained acceptance as a household appliance, led by the success of the Victor Talking Machine Company. Victor signed exclusive contracts with well-known performers and promoted their machines as the best way to hear these stars

¹² Mark Katz, *Capturing Sound: How Technology Has Changed Music* (Berkeley: University of California Press, 2004): 8. For a discussion of the ways in which early consumers needed to learn to deal with the difference between live and recorded music see Jonathan Sterne, *The Audible Past: Cultural Origins of Sound Reproduction* (Durham, NC: Duke University Press, 2003): 215-286.

¹³ A recording which predates Edison, created by Édouard-Léon Scott de Martinville in 1860 on a machine called a phonautogram was recently converted into sound. The original intention however was not playback. See Judy Rosen, “Researchers Play Tune Recorded Before Edison” *The New York Times* (March 27, 2008).

¹⁴ See Mark Coleman, *Playback: From the Victrola to MP3, 100 Years of Music, Machines, and Money* (Cambridge, MA: Da Capo Press): 13-4 for brief discussion of the rise of these machines from saloons to “a full-on fad” between 1889 and 1893.

perform. In advertisements Victor featured these prominent musicians, such as Enrico Caruso, opposite a machine asking “which is which,” as seen in figure 1.1.¹⁵ This advertising method took advantage of contemporary attitudes towards the distinctions between live and recorded music, highlighting fidelity in the literal sense by suggesting that the recording can replace the actual singer. Edison emulated this method in the 1910s with a series of “tone test” concerts, where a real singer would sing at the same time as a record played, occasionally stopping so concert-goers could marvel at their inability to tell the difference between the two.¹⁶

Figure 1. 1



¹⁵ This image, along with the image in figure 1.2 was taken from James N. Weber, *The Talking Machine: The Advertising History of the Berliner Gramophone and Victor Talking Machine* (Midland, Ontario: Adio inc.): 53.

¹⁶ See Thompson, “Music, Machines, and the Quest for Fidelity.”

The first major change in household phonograph technology was the introduction of the internal horn by Victor in 1906. Prior to the Victrola (the name given to this model), phonographs were considered unsightly and they were extremely delicate due to the large bell. The Victrola removed the bell, making the sound production entirely internal, solving both of these problems by turning the machine into a standard piece of furniture (it could even store records inside), with no exposed delicate parts. The internal horn also offered a new ability, for listeners to control the volume by opening and closing the door. The one problem with the internal horn was a decline in sound quality. Welch and Burt describe this decrease in *From Tinfoil to Stereo*: “the open-horn Victor Model VI of 1906 or any of the larger open-horn machines made by Victor were better reproducing instruments than any of the internal-horn Victrolas made right up to the period of electrical recording.”¹⁷ The overwhelmingly positive response from consumers may imply that these new advantages were more important than improvements in fidelity, but the advertisements tell a different story. In figure 1.2 I have reproduced the top half of a standard advertisement for the Victrola from 1910.¹⁸ Notably, this advertisement only mentions the design improvements in the last paragraph. Instead, the emphasis is on the sound quality: “The greatest feature about these new instruments is the unequalled tone which has given the Victor-Victrola its supremacy among musical instruments.”

¹⁷ Walter L. Welch and Leah Brodbeck Stenzel Burt, *From Tinfoil to Stereo: The Acoustic Years of the Recording Industry, 1877-1929* (Gainesville, FL: University Press of Florida): 129-130.

¹⁸ Weber, *Talking Machine*: p. 105.

Figure 1. 2



The first challenge to the phonograph for providing in-home music came with the introduction of radio in the 1920s. Radio offered actual live music for free with deeper bass and greater volume. Victor responded with the Orthophonic model in 1925, featuring electrical recordings that matched the volume capabilities and bass sound heard on radio.¹⁹ As consumers gained access to live music through radios the distinction in sound between recorded and live music became easier to hear as they could listen to the two side by side. As the ad states: “Imagine a musical instrument that will bring into your home, not the miniature reproductions you are accustomed to, but a breadth, volume and sonority of tone which avoids all the objectionable characteristics of reproduced

¹⁹ See Weber, *Talking Machine*, p. 119 for an advertisement describing the machine as “vastly superior to anything the world has ever known.”

music.” Victor advertises the same sound qualities that consumers had found favorable in radio sound, which temporarily became a new point of comparison in discussions of fidelity. These machines were so successful that Victor soon felt comfortable including radios in the Orthophonic Victrolas.

Magnetic Tape, the LP, and the Birth of Audiophiles

The period after the Second World War in America is notable for increased prosperity and a growing interest in American culture, including music, due to a combination of the propaganda value of the arts, and the numerous famous artists entering the country. When combined with new technologies found in post-war Germany, the American market was ripe for new sound products, which came in the combination of magnetic tape recording and the Long Playing disc (LP). The increased prosperity gave birth to a new community of consumers called audiophiles, who continued to direct the industry towards products offering higher fidelity no matter what the cost.²⁰

When an American soldier named John Mullin, who was stationed in England during the war, needed something to listen to late at night he found high quality orchestral music coming from German radio stations. At first he thought Hitler forced orchestras to play all night, but when the war came to an end he had the opportunity to search for the technology that made the transmission possible when he was commissioned to search for any useful technology to bring back from Germany. After finding and studying the radio station in Frankfurt, Mullin understood what he had heard in England, and he returned to the United States with magnetic tape technology used there. After returning, he found his first partner in Bing Crosby. Crosby, the popular but

²⁰ The word audiophile was first used in 1951 in *High Fidelity* for an article: “Audio-ophile’s Bookshelf.”

unreliable radio host was searching for new recording technology so he could make his shows in advance. Crosby's endorsement and use of magnetic tape led companies including Ampex to begin mass-producing the new machines.²¹

Magnetic tape technology had the potential to improve the sound of any type of recording, but it was used most effectively by CBS to introduce the LP. Victor had tried to introduce LP discs in the early 1930s, but the longer playback did not make up for a short life span (they fared poorly under heavy use) and no improvement in fidelity. The discs were only produced for a brief period of time with no success in the market. By the late 1930s CBS wanted to redesign the LP, hoping they could fare better promoting the ability to fit most classical works on single discs. Due to war-related delays, the final product was not ready until the late 40s, appearing at the same time as the first magnetic tape recordings. Edward Wallerstein, one of the project leaders at CBS, credited the success of the LP on the fact that forty percent of the original recordings issued on the format were from tape masters, which had yet to see mainstream use in recordings.²² This dual introduction led to an association of LPs with the higher quality recordings possible through tape masters.

The appearance of these new innovations coincides with the formation of a new group of consumers: audiophiles. Audiophiles of the time sought the highest sound quality from their recordings, by finding the best made recordings, the best equipment to play them on, and going to great lengths to care for those recordings. Numerous publications dedicated to this audience began appearing in the 1950s, most notably *High*

²¹ John T. Mullin, "Creating the Craft of Tape Recording" *High Fidelity* 26, no. 4 (April, 1976): 62-67.

²² Edward Wallerstein as told to Ward Botsford "Creating the LP Record" *High Fidelity* 26, no. 4 (April, 1976): 56-61.

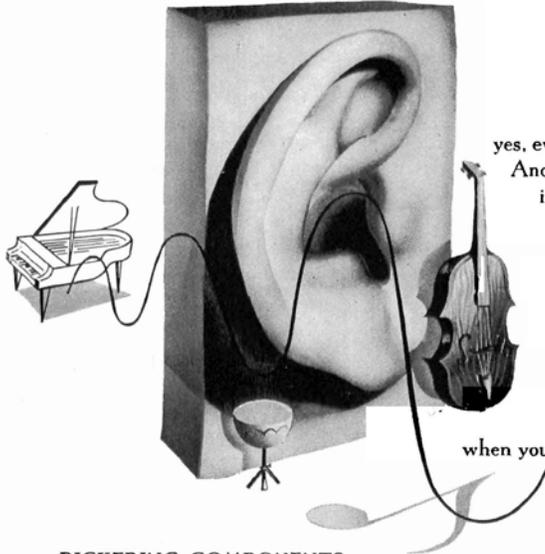
Fidelity, which began publishing in 1951. These publications featured reviews of both recordings and various types of products to help readers get the best sound. Setting the standard, *High Fidelity* required that reviewers make “objective” analyses of products based on calculations, rather than the actual sound.²³ This emphasis on objective analysis gave audiophiles a way to demonstrate that the sound was not only better to themselves, but scientifically better. Advertisers played with this new concept, where the high-end products would only make a difference for those with the knowledge and ability to take advantage of it. In figure 1.3 the headline of the ad reads: “For those who can hear the difference,” with emphasis placed on the word “hear.” This type of advertising is effective because it challenges the consumer to prove to themselves they are worthy of the product they bought through hearing the difference. This strategy is supplemented by reviews which explain scientifically why they should hear the difference.²⁴

²³ J. Gordon Holt describes this as one of his main reasons for leaving *High Fidelity* to begin *Stereophile*. See John Atkinson, “40 Years of *Stereophile*” *Stereophile* (November 2002).

²⁴ This approach to advertising aligns with Festinger’s theory of Cognitive Dissonance, see Leon Festinger, *A Theory of Cognitive Dissonance* (Stanford: Stanford University Press, 1957).

Figure 1.3

“For those who can hear the difference”
Listen....



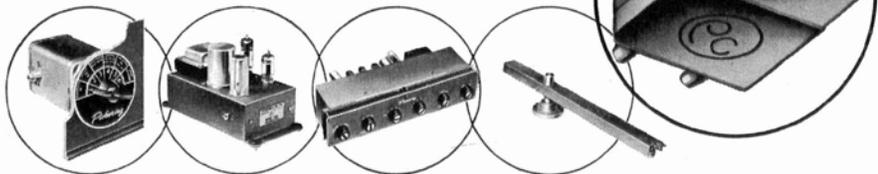
... it comes to you
in the subtle shading of a piano...
in the clean brilliance of violins,
the purity of a flute. Your ear detects
the sweet mellowness of cellos,
the roundness of a clarinet...
yes, even the iridescence of clashing cymbals.
And, as the symphony swells to crescendo,
its dynamic energy adds a flood of color
to your musical canvas.

For those who can hear the difference,
these are the elusive pleasures
that often remain hidden
in the grooves of fine recordings.

These are the thrilling
new listening experiences
that are released for your enjoyment
when you use quality components by Pickering.

PICKERING COMPONENTS

“for those who can hear the difference”



PICKERING and company, incorporated

- Pickering High Fidelity Components are available through leading Radio Parts distributors everywhere; detailed literature sent upon request. Address Department H-1

Oceanside, L. I., New York



The CD: How to Improve the Sound When You Can't See the Disc

The most significant technological innovation after the LP was the introduction of the Compact Disc in the early 1980s. The CD offered a slight improvement in sound quality along with numerous other advantages, ranging from smaller size to being more durable. In doing so, it made numerous types of components audiophiles had spent years improving obsolete. Numerous audiophiles rejected the CD, arguing that the transition from analog to digital sound was a downgrade and retained their LPs, now emphasizing the subjectivity involved in sound quality debates (many still believe LPs sound better than CDs today). These debates were not actually about the sound quality, but about the audiophiles themselves. On the extremes, the CD divided the community between those who sought a hands-on experimentation approach (LPs), and those interested in the newest innovations (the CD), with many including most of those who really only cared about the sound left confused somewhere in the middle.

Ignoring for a moment a direct comparison of sound quality between the formats, consider the other ways in which they differ. In design, the CD was made to appear similar to LPs, and they share the same shape although significantly smaller and metallic, instead of black – a choice which emphasizes that they are a piece of modern high-technology, belonging in the space age. The CD and the sound stored on it were significantly more durable. While the sound on a LP would constantly degrade with time and use, leading users to buy various cleaning and storage products, CD sound will never degrade unless the disc is physically damaged.²⁵ The CD also took long playing to a greater extreme, no longer needing to be flipped because everything was on a single side. Finally, with a CD one could select any song on an album using a remote from a distance.

²⁵ Some early CDs did degrade most likely due to manufacturing flaws.

Despite these numerous other clear advantages to using CDs, the audiophile publications focused primarily on the sound, spreading a massive debate, which for some continues today. Most of the leading publications came out in favor of the CD. *High Fidelity* featured an article with contributions from most of its reviewers, who all recommended the CD as the future of high fidelity sound.²⁶ Even some of the more extreme publications jumped on the CD bandwagon. In a 1983 editorial, J. Gordon Holt, the “founder, editor, chief tester, and resident guru”²⁷ of *Stereophile* wrote: “I have never done this, but I am going to recommend a product to all of our readers who can afford it. I am referring to the Compact Disc player” (underlining is his).²⁸ Holt continues his praise of the CD for 5 pages, proclaiming that the clarity of the CD will “expose mercilessly all the dirty tricks of the average big-name record producer.”²⁹ Christie Barter in *Stereo Review* took the same approach reporting that on CDs “what you hear or do not hear is almost entirely the conductor's decision.”³⁰ These reviewers all revert to the traditional definition of high fidelity to promote the CD, claiming that the format will make recorded music sound more like live music.

Advertisements, beginning in 1983, also presented the CD and digital playback as a source of improved fidelity in this traditional sense. In the October 1983 issue of *High Fidelity*, readers saw ads with the following headlines: “Nobody delivers the startling realism of digital sound like Technics,” “Hitachi introduces the next generation in

²⁶ “HF's Music Critics Take On the Compact Disc,” *High Fidelity* (January 1983)

²⁷ These are the titles for Holt listed underneath the table of context for the issue

²⁸ J. Gordon Holt, “Run Right Out,” *Stereophile* 6, no. 5 (1983): 8.

²⁹ *Ibid.*, 10

³⁰ Christie Barter, “The New Software: Compact Discs,” *Stereo Review* (September 1983): 74.

sound... A technological breakthrough in audio that delivers finer sound reproduction than ever before,” “The state of the art has just been elevated,” and “Sony creates seventh row, center. Forever.” The message these companies wanted to present was clear: the CD meant higher fidelity as defined by live sound. As declared in an ad by Fischer: “It utilizes space-age technology to produce a degree of sonic perfection that’s almost inconceivable.” For readers, the CD appeared to be bringing a new era of possibilities to recorded music.³¹

Some audiophiles, led by *The Absolute Sound*, had no interest in taking up the CD, preferring LPs. For consumers willing to redesign entire homes to improve the sound, the LP offers one major advantage, the ability to change and alter numerous parts including those that make direct contact with the medium that contains the music (the record in this case). In many ways these consumers may be better considered technophiles, obsessed with the machines more than the sound.³² One of the most frequently advertised pieces of equipment was the needle. The needle is no more important for good sound than numerous other parts of the machine, but as the point of contact between machine and record, consumers can see the needle work and feel a difference in weight (lighter needles would cause less damage to records allowing better retention of fidelity). Experiencing the difference with other senses makes one more likely to “hear” a difference in the actual music. By contrast, a CD player uses a laser, which can not be altered or changed by a vast majority of consumers (there should also be no difference in performance between two working lasers because they only read a finite series of 1s and 0s from the disc). The mechanical working of the LP also provided

³¹ *High Fidelity* 33, no. 9 (October, 1983)

³² This will be discussed in more detail in chapter 3.

many other locations for potential improvement. Even stands or cabinetry advertised the ability to improve sound (as seen in figure 1.4, an advertisement from *The Absolute Sound*).

Figure 1.4

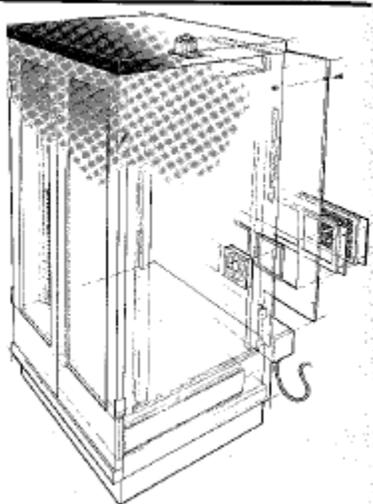
FINALLY — CABINETY FOR AUDIOPHILES

Imagine cabinetry designed for proper air circulation, easy access to equipment and convenient wiring. A surge-protected outlet strip, heavy duty casters, a drawer for accessories, cable clamps, adjustable shelves and an easily removable back using brass thumbscrews . . . all as standard.

Talwar offers these as well as state-of-the-art vibration isolation, power filtering, electrostatic control, time delay power-up, equipment cooling and grounding bus bar. All designed integrally into the cabinet or available separately.

Form and function intertwine. Talwar cabinetry is handcrafted from solid woods and styled in clean, elegant lines. You have a wide choice of woods, dimensions and options, such as marble.

Talwar—a new concept in audio cabinetry. Call or write us for more information.



TALWAR
311 WEST POINT TERRACE WEST HARTFORD, CT 06107 U.S.A. (203) 521-2263

The majority, who adopted the CD, moved on to focus on other pieces of equipment to improve the sound quality, led by speakers. If the appeal of investing in parts such as the cartridge and needle is because of their proximity to the disc, and therefore music, moving to the speakers is logical as the other end of the spectrum. The speaker connects the system and listener. Additionally, similar to the needle in a record player, one can see and feel speakers working. By 1995 Julian Hirsch was able to proclaim in a *Stereo Review* article: “The weakest link in any audio system is the loudspeaker.”³³

Despite a wide variety of shapes, sizes, and designs speakers were still advertised primarily for their sound, both in words and imagery. When choosing quotations from

³³ Julian Hirsch, “Technical Talk,” *Stereo Review* (July 1995): 32.

reviews to include in advertisements, statements concerning fidelity were placed at the forefront. In figure 1.5 I have reproduced a typical ad for a set of surround sound speakers by Polk. In small words under the picture we read that the speakers are “stylish,” easy to mount, and available in multiple colors. Everything else in the ad, however, talks about the sound quality. Others, such as the Bose advertisement in figure 1.6 even use the images to “illustrate” the sound quality.

Figure 1. 5

The Best Surround Speaker in the World

POLK'S LS f/x HIGH PERFORMANCE SURROUND SPEAKER

“I set out to create the best sounding and most versatile surround speaker in the world. The critics seem to agree that I have succeeded.” *Matthew Polk*

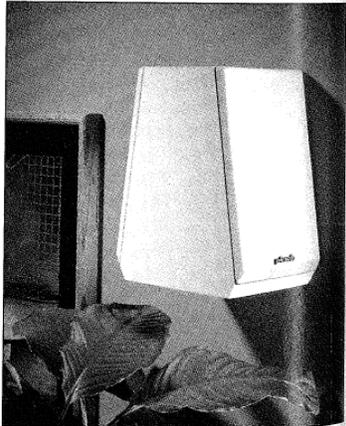
“...a rich, warm speaker with bags of bass... a top notch performer... [they] sound excellent and are highly versatile.” *Your Own Home Cinema, Great Britain, 1995*

“The initial effect with the Polks was simply staggering. The LS f/x's were the best surround experience I have had in my home.” *Audio Video, New Zealand, 1995*

“It's the range of these speakers that thrills. They can make the floor vibrate with their low bass and are excellent for space-ships flying overhead or the growls of moving tanks and cranes, just the stuff of which impressive home cinema is made.” *What Hi Fi, Great Britain, 1995*

“...a speaker of considerable sophistication.... [the LS f/x] can transform the surround channel from a typically flat monochromatic noise to a detached, spacious and coherent soundfield.” *HomeEntertainment, Great Britain, 1995*

Audition the LS f/x and other outstanding Polk home theater speakers at your local authorized Polk dealer or for information, call us at (800) 377-POLK.



Polk's stylish LS f/x surround speakers mount easily on your wall and are available in black or white to complement your decor.

CIRCLE NO. 51 ON READER SERVICE CARD

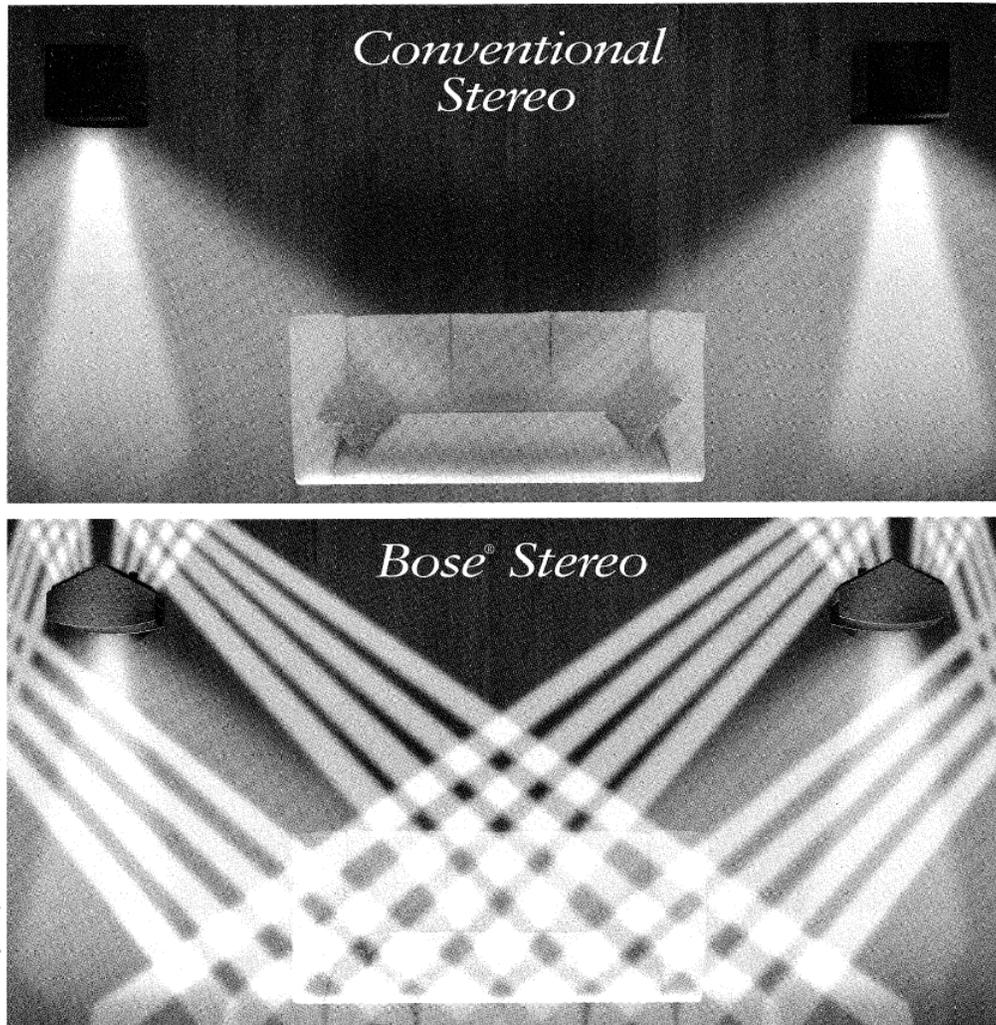
Dealer Locator Number
1-800-992-2520
Ad code: 10001



5601 Metro Drive, Baltimore, Maryland 21215 USA (410)358-3600.

"Polk Audio", "The Speaker Specialists" and "Dynamic Balance" are registered trademarks of Polk Investment Corporation used under license by Polk Audio Incorporated.

Figure 1. 6



Imagine seeing sound. If you could, choosing the best speakers would be simple.

You'd see how conventional speakers send their sound directly into the room, straight out from each enclosure.

But with Bose® Direct/Reflecting® speakers, the sound pattern

The 901® Direct/Reflecting® speaker system. The most highly acclaimed speakers ever. Other Direct/Reflecting® models share this technology, and are available to fit your needs and your budget.



looks more like that of a concert hall.

At a concert, most of what you hear reflects off the walls, floor and ceiling before it reaches your ears, giving live music much of its character.

Direct/Reflecting® speakers use the walls of your room in a similar

way, providing many of the lifelike, spacious qualities that make live music so enjoyable.

And you can experience that sound right in your home, everyday, just by turning on your stereo.

So although you can't see sound, we believe you'll clearly hear the difference Direct/Reflecting® speakers make. Call for the names of Bose retailers near you. And listen. Bose speakers will speak for themselves.

Call 1-800-444-BOSE, Ext. 571.

BOSE®
Better sound through research®

The advertisements for speakers in the 1990s continued the century-long obsession with sound quality in audio products. Numerous new products successfully entered the market offering better style, easier use, and more durability. These products were not marketed with these other improvements in mind, but solely for improved sound, both in language and imagery. This is even the case when the actual improvement in sound quality is non-existent, as with the Victrola, or debatable, as with the CD. In this context of the long history of fidelity-centric innovation that the change brought about by Napster, Winamp, and especially the iPod can be understood correctly; as truly revolutionary.

II. New Priorities: Winamp, Napster, MP3s, and the iPod

Breakthroughs have enough impact that they change everyday life. They generate second and third order innovations in ways that surprise even their creators. They also give birth to competitors and rip-offs, as everyone tries to cash in on an original idea. Since they alter the ways we live, learn, work, and play, it is vital that we try to consciously understand them, and create conditions that make them possible.³⁴

In a 1996 article: “Breakthroughs” the Doblin Group describes the long-lasting effects of particular innovations, which are capable of dramatically changing the course of industries and lifestyles. In music they view the audio cassette as an example of a breakthrough. For the Doblin Group the most significant new feature of cassettes was the ability to combine songs from different albums, although I will show that the emphasis for the press remained on fidelity. The most important outgrowth of the cassette was Sony’s Walkman, “built around the easy portability and reliability” of cassettes.³⁵ Discussions of the wide-ranging effects of the cassette and especially the Walkman are commonplace among cultural studies scholars, but the Walkman’s effect on music, the ultimate product users consumed was minimal in America because they quickly flocked to the Compact Disc, which reached a mass-market price-point in the late 1980s, reversing many of the qualities highlighted by the Doblin group in favor of higher fidelity. I will argue that from a fidelity standpoint, the iPod was a breakthrough product, not only offering increased functionality as seen with the cassette and Walkman,

³⁴ The Doblin Group, “Breakthroughs” *Design Quarterly* (1996): 5.

³⁵ *Ibid.*, 16.

but highlighting these as the factors which define the music listening experience, replacing fidelity.³⁶

Consideration of the iPod as a breakthrough product differs from the Walkman because it was able to change the format consumers used for not just portable music, but almost all music from the CD to the MP3, a transition which not only decreased sound quality, but also changed topics of discussions away from fidelity. The iPod helped to spread new values which I call post-fidelity, including (1) quantity of songs, (2) visual aesthetics and style, and (3) the ability to easily transition between songs in predetermined orders, those chosen at a moment (either to begin immediately or in succession), or completely randomly. These three features define the iPod experience as different from both portable and in-home music players before it. The new desire for these qualities is so great that many CDs are purchased to be converted into lower fidelity MP3 files, and as will be discussed in chapter three, numerous high-end products marketed towards audiophiles are designed to store music from CDs as MP3 files for easy use throughout the house, or to simply turn the iPod into the ultimate (minus the fidelity) home system.

In this chapter I will examine the exact role of the iPod in the transition to post-fidelity. Through contextualizing the product I will demonstrate that the breakthrough of the iPod is not one of technological innovation as much as one of marketing. To demonstrate this I will examine two more categories of music consumption prior to the iPod: personal portable devices and computer programs for acquiring and listening to

³⁶ See Paul du Gay et al, *Doing Cultural Studies: The Story of the Sony Walkman* (London: Sage Publications, 1997) and Shuhei Hosokawa, "The Walkman Effect" *Popular Music* 4 (1984): 165-80 for examples of more cultural based approaches to the Walkman. The first book is intended to be used as an introductory textbook based around the product.

music. For background on the product as a breakthrough for portable music I will present a brief history of portable consumption, beginning with the walkman, which, while not the first portable music player, popularized the practice of private and individualized music consumption in public spaces. Then I will describe the successors of the Walkman in the portable music sphere, led by CD-players and pre-iPod MP3 players. In my exploration of all of these technologies I will demonstrate that fidelity was still the most important issue, and one which prevented many of these devices from becoming the primary method of music consumption for most users, an area where the iPod has succeeded beyond all possible expectations.

The iPod's success in overcoming the status of portable players as secondary devices, used during times when other, often higher fidelity, options were not available, was possible primarily due to two other technologies introduced before it: Winamp and Napster. These two computer programs will form the second section of my discussion of the path to post-fidelity. The two worked together to distribute and play incredible numbers of songs as MP3 files, along with introducing many of the modes of listening and interacting with music that the iPod has championed. These programs also helped to popularize the MP3 as a format which created the initial demand required for the iPod to succeed.

Lastly, I will examine how the iPod became a breakthrough product. A focal point will be the introduction of the device, in a highly publicized press conference where Steve Jobs, along with musicians including Moby and Seal, directly challenged the fidelity paradigm to demonstrate the vast distinction between the iPod and its competitors. I will demonstrate the initially cold response to both the press conference

and the product, and the trouble traditional music reviewers had when dealing with the iPod even as it became increasingly successful, contrasted with immediate praise from those outside the music world, writing about technology in general or even style.

Throughout, the defining features of the iPod will be shown in relation to the products that came before, to grasp the true effect of the small device on the entire world of music consumption.

Early Portable Players

Numerous studies have already looked at portable music, especially using the Walkman as a sort of breakthrough product as described by the Doblin group. Most of this work has been in the context of cultural studies. Instead of looking at the interaction of consumers with the music produced by the device, the focus frequently looks at the ability of the music apparatus to change a user's interaction with their environment and other people. My approach is concerned instead with the role of these formats in the history of creating and consuming the music itself, with particular regard to the status of fidelity. In this section I will demonstrate that prior to the iPod, even portable formats featured fidelity as the primary influence. I will also look at the trouble many reporters had discussing these products due to the assumption that they were not "high-fidelity" and therefore perhaps should not be covered by serious audio publications.

Sony began selling the Walkman in the United States in 1980, and immediately sought to change the dynamic of the portable music user base. The dominant devices prior to the introduction of the walkman were portable cassette players with speakers that allowed everyone near the user to hear the music as well (now most commonly referred to as boomboxes). These machines were commonly associated with urban youth, who

were depicted as violently taking control of the soundscape. The Walkman presented an alternative for middle and upper class professionals who sought to regain control, but do so privately (or semi-privately as the earliest models had two headphone jacks so users could share their music). The iPod later attempted to appeal to this same group, but the Walkman did so through sound quality. In a 1980 article for the *New York Times*, one of the first devoted to the device, Ron Alexander wrote: “As astonishing as the fact that a pocket-size set plays true stereo sound with stereo-separation is the fact that most of the people currently plugged into the unit of the city’s streets look as if they wouldn’t be caught dead lugging around those cumbersome radio ‘boxes.’” In an article about the people using the devices and the price people are willing to pay for them (they were sold out everywhere), Alexander feels a need to describe its technological success in terms of the quality of sound reproduction. This emphasis is repeated by his use of user quotations. Karen Meyers, an interviewee declares the sound: “so fantastic.”³⁷

While the Walkman provided an ideal product to cover for the *New York Times*, the more “serious” audio publications were troubled. *High Fidelity* at first ignored the Walkman to a great extent, and Sony did not seem interested in looking for coverage there. Sony’s advertisements in *High Fidelity* were not for the Walkman itself, but for their cassettes. The assumption was probably that readers of the publication first had to be sold on the idea that cassettes provided a reasonable alternative to LPs for situations in which a record player was unavailable.

As the market for the Walkman took off (Sony sold 500,000 units in 1980) and every other company began to copy the device, *High Fidelity* could not remain silent and

³⁷ Ron Alexander, “Stereo-to-Go--and Only You Can Hear It; For the Thinking Man” *The New York Times* (July 7, 1980): B 12.

devoted significant space to portable audio in the August 1981 issue (over a year after the Walkman first became available in the United States. The impetus that allowed the publication to finally take portable cassette players seriously was the introduction of Infiniti's "Intimate" player. This player was the first to use Dolby noise reduction circuitry, an easy excuse to finally enter the walkman discussion a year late. The review was even titled: "An Audiophile's Portable from Infinity." Following this review was an article: "The Personal Portable Revolution," which surveyed 37 different types of players and came to the conclusion: "simply put, personal portables can be genuine high fidelity instruments."³⁸

By redefining portable players as instruments capable of high fidelity sound, the writers justified discussing them. This prioritization by the press, focusing on fidelity over portability was maintained for two decades. When portable CD players were introduced the comparison to fidelity in the home was easier because they used the same format. The minidisk, Sony's next attempt to redefine the portable market allowed for compression of songs to gain more storage, but could also play at full CD quality, meaning that reviewers never had to deal with a decrease in the fidelity of formats, until the MP3 (by contrast, Apple added their lossless format with CD-quality only in later iterations of the iPod).

Like the Walkman, at first MP3 players could be ignored by publications focused on high quality audio equipment, but eventually too many companies were making too many devices and some coverage was needed. Lacking, however, was the high-end device which could be compared to home systems to turn the new portable trend into a

³⁸ "An Audiophile's Portable from Infinity" *High Fidelity* 31, no. 8 (August, 1981): 36-38. Peter Dobbin, "The Personal Portable Revolution" *High Fidelity* 31, no. 8 (August, 1981).

high fidelity option. In fact, the nature of the MP3 as a format (discussed below) meant that no reasonable writer could compare the merits of its sound quality to the CD, the leading option for both in home and portable music. Because no high-fidelity MP3 player appeared on the horizon, publications categorized the players as toys rather than serious instruments, and they were assisted by the companies producing the products who also marketed the devices towards youth. Instead of names such as walkman and intimate, early players had names like “iRock,” (released before anyone had heard of an iPod) and “Kazoo.” *Sound and Vision* featured these and others in a “cool products for the summer” article where the products are not given scores based on performance, but “cool factor.” Creative Labs’ “Nomad Jukebox” player, the most advanced prior to the iPod came right before a “backpack boombox.”³⁹

In the *New York Times* the early MP3 players were not received as warmly as the Walkman either, repeating the emphasis on being more kid’s products or toys than serious music system. In August of 1999, Michael Marriott reviewed a number of the devices all at once (the same strategy found later in *Sound and Vision*). In the opening section that describes the growing market Marriott quotes Amy Hill, a spokeswoman for the Consumer Electronics Manufacturers Association, who says “every teen-ager I know wants one of these things, and older people do, too.” As Marriott continues, he describes the computer skills needed to use the devices: “users must know enough about computers to master software programs.” The use of the term master as opposed to merely learning to use the programs probably leaves out many of the general “older people,” who most likely did not have the time to learn how to “master” all of these programs just to listen to

³⁹ Jeffrey Spaulding, “Summertime Cool: 10 High-Tech Portables Let the Good Times Roll” *Sound and Vision* (July/August 2001): 68-73.

music on a new device. Clearly the implication is that the product was for the youth with the addition of a few computer savvy elders.⁴⁰

The higher-end portable MP3 players attempted to overcome the youth/toy niche the majority of the devices were stuck in. When Creative Labs released a new design for their Nomad player in 2000 (the one mentioned in the mini-review above) which had six gigabytes of storage space, slightly more than the first iPod a year later, they failed to realize the age of fidelity was coming to an end. In the very brief press release article for the *New York Times* introducing the new product, Bruce Headlam wrote: “Those many audiophiles who do not believe the commonly heard claim that MP3’s produce ‘near CD sound quality’ can use the Nomad Jukebox to store less music but at higher speeds, up to 320 kilobits per second.” The assumption was that the factor preventing MP3s from spreading to the wider world of consumers was the lack of sound quality, and that making them even closer to CD quality could overcome this challenge.⁴¹

The MP3, Napster, and Winamp

Before moving from these early portable MP3 players to the iPod, the device which solved the fidelity issue by ignoring it, a further investigation of the MP3 as a format is warranted. The MP3 has proven to be one of the most important technological products of the twentieth-century. The technology itself was only the best available for a few years, but in that time it grew so fast that in under a decade it has taken on the status of a genericized trademark, used in general for highly compressed music files (similar to

⁴⁰ Michael Marriott, “Downtime: New Ways to Play MP3 Music, Without Plugs or Speakers” *The New York Times* (August 19, 1999).

⁴¹ Bruce Headlam, “News Watch: The Portable MP3 Player that Won’t Stop the Music” *The New York Times* (March 1, 2001).

Kleenex for tissues), and this is the manner in which I will use the term. The early history of the MP3 is worth examining because it was conceived not as a portable format, but one for use in the home, first in movies, and later for music stored on computers. Now, after taking over the portable market, the format has begun to return into homes through iPod docks and other MP3 based home stereo systems. In this chapter I will examine the development of the MP3 as a format through two of the earliest and most popular computer programs associated with it: Winamp and Napster. These programs defined many of the ways in which MP3s would be consumed using later products, particularly the iPod and iTunes.

The development of the MP3, or MPEG-1 Audio Layer 3 began in the 1980s by a team of engineers including representatives from Philips, AT&T-Bell Labs, and the Fraunhofer Society. The original goal was the creation of a video format equivalent to the CD, sponsored by the Moving Picture Experts Group (MPEG). To do so would require either discs that could hold significantly more information (the failure of laserdiscs which were physically larger than CDs hurt this prospect) or, what was adopted, compression: a method of taking the digital information and making it fit in smaller spaces by removing less important information. The resulting format, called MPEG-1, consists of multiple parts, the third one for “perceptual coding of audio signals,” and consisting itself of three “layers,” allowing for different degrees of complexity.⁴² While the first layer, MP1 was far inferior to either of the others, both MP2, the second, and MP3, the third, became viable methods of audio compression.

⁴² The perceptual coding label recognizes the MP3s major contribution, changing the sound, but doing so by removing parts of the sound that will not be perceived by human ears (for example, at the instant of a cymbal crash no other sounds will be heard, so the MP3 will not capture the sounds created by other instruments at that moment).

MP2 is recognized for creating fewer errors in compression at higher bit rates, which means larger files, while MP3 performs best when heavily compressed.

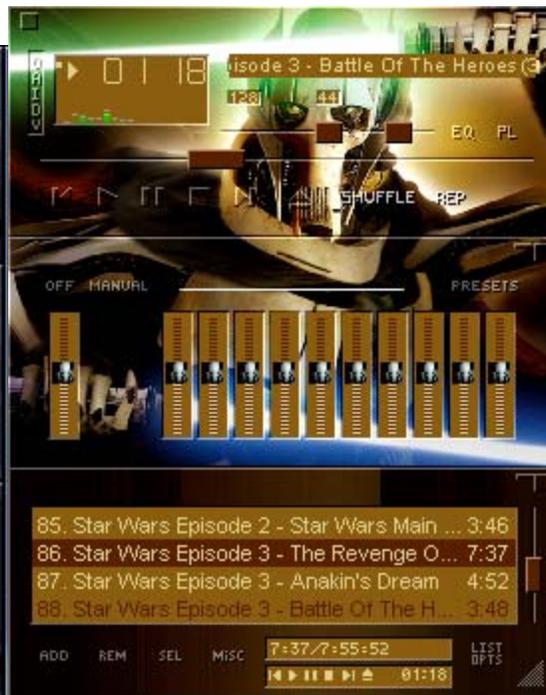
The first program which helped to turn the MP3 into a viable format was Winamp. Introduced for free in 1997 by Justin Frankel, Winamp became one of the most frequently downloaded programs for all computers before Napster even appeared on the scene. In the same year as Napster arrived, 1999, Winamp was felt to be so important that AOL spent \$80 million to buy Nullsoft, Frankel's company. By 2000, shortly after Napster, Winamp claimed 25 million registered users. The program is important for two reasons, first its style and control options, which I will argue share numerous similarities with the iPod, and second the community of those 25 million users which spread new ways of interacting with music and will also parallel later iPod usage.

Figure 2.1 shows the standard appearance of the popular version 2.0 of Winamp. Stylistically there are many features of note. First is the color and design scheme, using black, metallic silver (notice the two tone buttons that anticipate the highly praised back of the original iPod), and lightning bolts: the design is clearly directed at a high-technology youth market, the standard trend seen with portable MP3 players at the time. After the color scheme, the numerous numbers and sliders should be of particular note. The program appears to offer a wide variety of options for the user to control. Even the appearance of the program could be altered in numerous ways. The program can be divided into three sections, the top with the song information and play and pause buttons, the middle with an equalizer, and the bottom with a playlist. These sections can be minimized individually, so a user can in effect remove the equalizer and connect the top and bottom sections.

Figure 2. 1



Figure 2. 2



The wide variety of items displayed also give an illusion of great control over the music itself, although in many respects that control is very limited. The numbers near the top, 128 kbps (kilobits per second, which refers to the amount of data processed each second, CDs are 1,411 kbps) and 44 khz (kilohertz, this rate is the same as CDs), only show the quality of the MP3 file, which were relatively standard at these levels. The rest of the top section includes the normal functions of any standard CD player. The middle portion of the Winamp provides more control than is otherwise necessary, with a fairly detailed equalizer. Most users, however, probably relied more on the preset options than adjusting each of the levels. For the iPod, the presets are all that remain. I suspect that the full equalizer was probably more for visual aesthetics than expected use for many users. The most important way Winamp can be said to innovate in terms of listening

methods is through the bottom section, which includes the playlist. Consumers took their favorite music and rearranged the songs in various orders previously through things such as the mix-tape, but with Winamp the bounds of time constraints no longer existed. Additionally nothing was permanent. The order could be changed in seconds while listening. Lists could then be saved or vanish never to exist again in the same way. When combined with the shuffle button from the top (which was a feature of some CD-players), users could also create playlists of songs while keeping the order random.

Another area where Winamp excelled, both in user control and visual style, was the community aspect of the product. Users were allowed and encouraged to create “skins” for the program, which altered its appearance. One example can be seen in figure 2.2. According to Frankel, the ability to use skins separated Winamp from other programs: “Skins are the type of feature that show why Winamp is simply ahead of most other MP3 players. You can completely change the appearance of your Winamp playing system with skins. They don’t change the arrangement of the key interface items but the graphical look of each element can be customized.”⁴³ Users created a wide variety of skins and Nullsoft distributed the user created product for free through the Winamp website. Users could also make and distribute “plug-ins” through Nullsoft’s website, which added various types of functionality. One popular plug-in allowed the program to function as an alarm clock, usable with any playlist and either specific songs or the shuffle function. Both of these user created options helped to create a new community of users who, even though they lacked direct communication, were able to share both their musical and extra-musical interests (notice the Star Wars theme of the skin in figure 2.2)

⁴³ Justin Frankel and Dave Greely, *MP3 Power! with Winamp* (Cincinnati, OH: Muska & Lipman, 1999): 63.

through their consumption of music. This can also be seen with the iPod, whose users often make their own versions of the famous silhouette commercials, both with musical and non-musical themes.

For the playlist and shuffle functions to reach their full potential consumers needed a method of acquiring large numbers of MP3s. The format was well suited for easy distribution of music with files small enough that standard dial-up internet connections would be more than sufficient to download songs. The problem was the lack of a distribution system. Some websites and communities for distributing and sharing MP3s appeared in the mid 1990s, but reaching the mainstream audiences would require a massive infrastructure. The record companies, who in the fidelity-based mindset were working on more traditional methods of improving music for consumers with the SACD and DVD-A format, saw no reason to create this infrastructure and digitally deliver lower quality recordings. Filling the distribution void, Napster, a program created by Shawn Fanning, appeared and became an instant hit in 1999. Napster avoided the infrastructure problem by having each user become a part of the infrastructure, not only downloading from others, but sharing whatever was downloaded with everyone else.

The structure in which Napster served as a program to connect users who could share content had far-reaching effects for modes of post-fidelity music consumption and acquisition. In previous models of music acquisition were based on categorization and classification methods leading the consumer immediately to a specific product when one is sought, or to products based on similarities or recommendations based on already known music: the same band or composer on a local level, and the same genre on a larger level. Napster still allowed users to search effectively for a specific work by using full

titles and artist names. Napster, however, also allowed for instantaneous recategorization by searching for keywords that could be as specific or vague as desired. Gershwin's *Rhapsody in Blue* could be found alongside songs by *Blue Oyster Cult*, The connection of these songs being the word "blue." Additionally, after being acquired in this manner they could remain together through the creation of a "blue" playlist using Winamp.⁴⁴

Besides categorization concerns, Napster also challenged traditional modes of music commercialization. In the record store space is one of the most important commodities, with the most visible displays going to new albums expected to sell the most based on a wide range of factors, many of which controlled by the record industry itself. With the exception of specialty shops, local and independent groups had little ability to disseminate their music on a large scale. On Napster, however, the search system had no way to determine which song came from a large record label and which did not. The only way a song could become more prominent was through being more widely disseminated, placing the marketing aspect of music in the hands of the consumers. Some could take advantage of this by "mislabeling" songs to disseminate them to unknowing listeners, making the consumer believe they were downloading a song by a more popular band. Other errors may not have had malicious intent. Users had to trust that anyone they got music from labeled songs correctly, or they may listen to a song every day and never know its real title or performer.⁴⁵

⁴⁴ This type of searching is discussed in Mark Katz, *Capturing Sound* (Berkeley: University of California Press, 2004): 167-8.

⁴⁵ Record companies took advantage of this to spread bad copies of songs, most famously with Madonna's album "American Life." See "Madonna Swears at Music Pirates," *BBC News* (April 22, 2003) <http://news.bbc.co.uk/2/hi/technology/2962475.stm>

The iPod Introduction

Even though Napster did not last long before it was shut down users acquired vast libraries of music, and they had no efficient way to move it from their computer to traditional listening spaces, or more importantly the rest of the world. As discussed earlier, portable MP3 players began flooding the market shortly after Napster appeared, but none offered a portable version of Winamp: easy to use with lots of storage. As seen with the Nomad, the few devices that had large amounts of storage targeted a wider audience through advertised to ability to put higher quality songs on, an attempt to compete with the CD in the one area it clearly excelled. The success of the iPod was not necessarily the creation of a technologically superior product, but redefining the priorities of what a music player should do and the areas in which it should excel to what I call post-fidelity values.

The iPod as a musical device reflects many of the values described above in Winamp, and the iTunes store, can be considered a commercial extension of Napster. The two major factors that distinguished listening to music on Winamp from other options of the time were the playlists and shuffle button (I include the shuffle because its use with playlists that could be of any length and completely customizable vastly differs from the random option for a single album). The iPod highlights both of these aspects of the listening experience. The iPod also emulates Winamp with numerous preset equalizer options. A full equalizer can be used in iTunes before a song is stored on the iPod to create specific settings.

A final connection between the iPod and Winamp is the extramusical social aspect of the device. I depicted the ways in which Winamp users created and

downloaded skins that allowed them to change the physical appearance. iPod users have taken the same approach with the iPod, but instead of the device itself the commercials, which have become just as recognizable as the iPod. The commercial series used most frequently in this manner was a series of silhouettes dancing with the white iPod and white earbuds and wires on top of a solid background of various colors, as seen in figure 2.3. Users have created their own “advertisements” again using a wide variety of topics, coming from various other interests, similar to the Winamp.

Figure 2. 3



Steve Jobs and Apple had a long history of success with innovation, design, and advertising. This dates back to the well-known 1984 Super Bowl commercial for the Macintosh computer. Apple lost its dominance of the computer market throughout the 1990s, so when Steve Jobs, who left Apple to create the highly successful Pixar movie studio, returned and declared that he had a new revolutionary product to present few listened. The press conference, where Jobs introduced the iPod did little to improve the situation, with many asking how many consumers wanted to pay \$400 for a portable MP3 player which was only compatible with Apple computers. Still viewing music products in the old world they missed the revolutionary way in which the iPod was presented, not

as a CD alternative that sounded nearly as good, but as a breakthrough, and this change in marketing strategy requires a detailed examination.

Jobs began the press conference with a comparison of current portable music consumption options: the traditional compact disc, flash-based MP3 players, CD-players which read MP3s and hard disc based MP3 players. The comparison highlighted two aspects of the players: the cost and the number of songs they could hold, sound quality was nowhere to be found. Immediately, Jobs changed the focus of music consumption from anything related to the sound to the quantity of songs a player can store. By comparing the cost per song stored, the only viable format quickly became the hard disk-based MP3 player, a format which already existed, but few expected to become the format of the future. By beginning with the assumption that hard disc players were the future of music consumption the developers at Apple were able to introduce a significantly enhanced product using their experience with portable computer systems.⁴⁶

Next in the press conference, Jobs described three major breakthroughs, all related to the ability to store and listen to a much greater quantity of music. First was the “ultra-portable” hard drive, which held the same amount of information as competitors, but was somewhat smaller. Second was the use of firewire, a type of connection Apple included on all of its computers, but had yet to gain momentum with other manufacturers. Compared to its PC-based competitor, USB, firewire was significantly faster and had the ability to provide power for devices. The third advantage was a battery, claimed to be more advanced than in any Apple Laptop, allowing for 10 hours of continuous music, and it could be recharged through a computer. All of these, if compared correctly offer

⁴⁶ “Apple Music Event – The First Ever iPod Introduction,” *Youtube* (April 3, 2006) <http://www.youtube.com/watch?v=kN0SVBCJqLs> (Accessed on July 9, 2008)

improvements by a degree of 10 over the current options for portable players, the traditional improvement for a “breakthrough” product.⁴⁷

After the talk by Jobs, a pre-made video was played for the press featuring interviews with the lead designer Jonathan Ive, musicians, and others who worked on the iPod.⁴⁸ This video focused mostly on the design and ease of use of the device.

Somewhat surprising was the role played by the musicians. Traditionally musicians would be used in advertising to proclaim that a technology made their music sound great. These musicians, led by Moby looked at the device as normal consumers look at any piece of technology, speaking mainly about the style, physical aspects of the device, and its ease of use.⁴⁹

This marketing approach, highlighting ease of use, directly challenged the reason many of the previous MP3 players were marketed towards the youth, the assumption that adults could not figure out how to use them. Moby, the adult musician, stood in for the average listener, who had built an incredible collection of CDs over the years and wanted a way to match the ease with which the younger generation could carry all of their music with them. He claims to have owned three MP3 players, none of which he could figure out how to use.

The other main issue Moby brings up is the design: “I don’t know who your product designers are, but you’re not paying them enough.” This allows for a transition to Ive, the lead designer, who also emphasizes the ease of use: “the big design story is

⁴⁷ Doblin group “Breakthroughs,” 16.

⁴⁸ A detailed discussion of Ive’s role on the iPod can be found in Dylan Jones, *iPod, Therefore I Am: Thinking Inside the White Box* (New York: Bloomsbury, 2005): 50-69.

⁴⁹ “The Very First iPod Promotional Video,” *Youtube* (February 11, 2006) http://www.youtube.com/watch?v=e84SER_IkP4 (accessed on July 9, 2008).

clearly the interface.” The video continues with Steve Harwell of the band Smash Mouth who again repeats the ease of use argument. Finally, Seal appears. He describes the iPod as a “wow” moment, comparable to the first experience with a walkman. If it was not clear already who the audience was, this makes it unambiguous that the goal is to broaden MP3 usage to people who may have never considered themselves capable of using such a device, those who can remember the experience of their first walkman, who are also the most likely to be able to afford the price tag: \$400.

Despite the major production of the press conference, response was mild at best. Internet communities, which were populated by users who had no problem figuring out how to use the players already on the market, felt that the iPod offered nothing new except a high price tag. The mainstream press, which was the audience Apple wanted covering the product to reach general consumers, were not much friendlier, mostly because the product was only compatible with Apple computers which meant most could not use it even if they wanted to spend the \$400. *The New York Times* listed the claims made by Jobs, but included numerous statements from analysts suggesting that the device was extremely limited in potential: “to the rest of the Windows world, it [the iPod] doesn’t make any difference.”⁵⁰ Publications that covered audio equipment, such as *Sound and Vision* ignored the iPod entirely at first.

When the product appeared in stores a few weeks later it was already seen as more than a music product by those outside the music world. Ellen Tien, writing for the style section of *The New York Times*, the day after the release of the iPod claimed: “the iPod is the ultimate fashion accessory for the chic and famous.” She also points out that

⁵⁰ Matt Richtel, “Technology: Apple Introduces What It Calls an Easier to Use Portable Music Player” *The New York Times* (October 24, 2001)

it is already used by such “bold-face names” as Seal and Moby, two of the musicians featured in the iPod marketing campaign.⁵¹ If any writer can be said to have gotten it right, it was David Pogue, a former writer for *Macworld Magazine*, then working as a technology writer for *The New York Times*. Pogue points to both positive and negative aspects of the product, but emphasizes the style and design, calling it “the most beautiful and cleverly engineered MP3 player ever.” At the end of his article he predicts “if Apple ever lowers the iPod's price and develops Windows software for it, watch out: the invasion of the iPod people will surely begin in earnest.”⁵²

The iPod was not an immediate success, nor did the wider world catch on to the post-fidelity trend immediately, especially music writers. The articles that praised the product came from technology or style writers. As a music product, the iPod had farther to go, and the lack of emphasis on music in promotions did not help its case. *Sound and Vision* did not review the iPod until the February/March 2002 issue. This review was not even a standard review listed in the table of contents, but a column: “Media Maven” by Michael Antonoff. In dealing with a review of the iPod, Antonoff does not return to the accomplishment of high fidelity portable audio I discussed with the Infinity machine from 2000 in *Sound and Vision* but returns to the idea as a less-serious product. He begins by proclaiming that he made a personal best time while running around Central Park using the iPod. Antonoff praises the iPod, but always maintains that it is something other than a true music machine, at the end declaring the rejoicing of Apple fans over

⁵¹ Ellen Tien, “Pulse: P.S.; 1,000 Songs in Your Pocket,” *The New York Times* (November 11, 2001)

⁵² David Pogue, “State of the Art; Apple’s Musical Rendition: A Jukebox Fed By the Mac,” *The New York Times* (October 25, 2001)

their Windows counterparts should be limited: "let's be realistic: spending \$399 on a peripheral isn't the same as buying into a whole computer system." By the end of 2002, when *Sound and Vision* gave the iPod the Reviewer's Choice award for best "personal MP3 player" they still referred to it as a "gadget," and Antonoff repeats his superior running ability with the product as evidence of its effectiveness.⁵³

As the iPod has grown to incredible levels of popularity, the relationship with fidelity has remained fairly constant: indifference. As the disc space grew, it would have been easy for Apple to promote better sound quality as seen with the Nomad in 2000. They did introduce the Apple Lossless format in 2004, which allowed iPods to play music at CD-quality, but this ability, never advertised, was considered a minor feature for those who knew enough to seek it out. Instead, the increasing hard drive space was devoted to other tasks, first storing pictures, then storing and playing videos. Video files are easily capable of filling significantly larger discs even at noticeably lower quality than what most consumers want, creating a new reason for consumers to buy new iPods with larger drives. In 2007, Apple took yet another approach introducing the iPod Touch. The touch offered a new interface and larger screen, but decreased storage space, allowing them to begin the growth of disc space all over again. This strategy of offering new services and formats for the device allows Apple to innovate in ways that change the consumer experience in significant and noticeable ways, causing them to desire the newest models.

⁵³ Michael Antonoff, "Media Maven: Apple Leads the Pack," *Sound and Vision* (February/March, 2002): 110-112. Notably this column is distinct from the actual reviews section of the magazine titled "Test Reports." "Sound and Vision: Reviewer's Choice Awards," *Sound and Vision* (December 2002): 115-122.

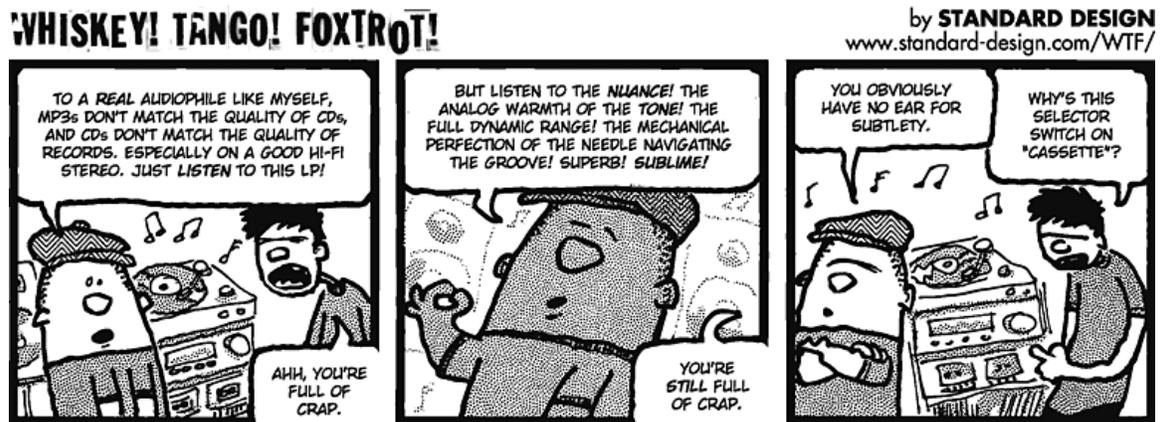
III. Audiophiles in the Post-Fidelity Age

High-fidelity is dead. This message can be found frequently in mainstream media coverage of music technology. What remains unclear is where the audiophiles have gone. Many of the popular press writers depict the move from high-fidelity as one based on the disappearance the mystical consumers labeled audiophiles. The claims of the audiophile demise originates with a caricature-like definition of audiophiles based on negative connotations of consumers relying on a sort of audio mysticism: buying hyped yet untested products promising magically improved sound which often only the purchaser can hear (see figure 3.1 for a comic typical of this thought).⁵⁴ In this chapter I will begin my exploration of audiophiles by redefining the term to accommodate the modern consumers of high-end audio equipment and sound, a group of consumers who I will argue are entirely consistent with the majority of audiophiles who came before. This group of audiophiles is not dead, but thriving. After defining the new audiophile, I will examine the ways in which the change to post-fidelity values has affected various aspects of their consumption. This will include a brief discussion of the introduction of the Super Audio Compact Disc (SACD) and DVD-Audio (DVD-A) formats released in 1999 and 2000, followed by a detailed reading of advertisements for speakers in the leading audiophile print publication: *Sound and Vision*. Lastly, I will look at internet communities populated with the new audiophiles and their methods of discussing

⁵⁴ Standard Design, "Whiskey! Tango! Foxtrot!," (July 25, 2007) <http://www.standard-design.com/WTF/images/WTF-2007-028-audiophile.gif> (accessed July 9, 2008)

products and responses to articles in the mainstream media. These will demonstrate the influence post-fidelity has had over the high-end audio market, which appeared least susceptible to the values of post-fidelity consumption.

Figure 3. 1



Audiophiles: Who and Where Are They

The term audiophile when translated literally means a person who loves sound. In American culture since the 1950s, when the term first appeared and rose to prominence, it has often had a much more specific definition. Audiophiles of this period and after were consumers who went to great lengths to improve the quality, or fidelity, of music. Rather than lovers of sound, these audiophiles looked to remove sounds that were determined to damage the music.⁵⁵ If we return to the introduction of the CD, one of the primary features praised by reviewers was the ability to remove excess noise, distortion, and recording tricks (methods of engineers to change the sound). The goal was a return to the

⁵⁵ See Aden Evens, *Sound Ideas: Music, Machines, and Experience* (Minneapolis: University of Minnesota Press, 2005): 8.

“original” or “real” sound.⁵⁶ Since the late 1990s, this limited definition has been inaccurate for describing the larger audiophile community, so I suggest we return to the root of the word: sound lovers. In many cases the new audiophile’s primary interest when upgrading their system is not music, but also movies and/or video games. The community can best be described as home theater enthusiasts.

The inability to see the connection between the traditional audiophiles and the new home theater communities has led many in the popular press to decry the death of audiophiles as a whole. Writing for the Associated Press, Ron Harris in “Digital Music Libraries and Devices Portend Death of Hi Fi Sound” introduced readers to the hi-fi market with a store that sells “a \$5,000 needle for your turntable and stereo cable at \$2,700 a meter.” Harris then points to store closings by various chains including Tower Records and layoffs by Circuit City. Neither Tower Records nor Circuit City sell turntable needles nor cables that expensive, but the inclusion of the example products are clearly meant to define audiophiles as the crazy or unreasonable consumers found in the comic discussed earlier, especially when Harris writes: “the difference in sound quality, perceptible or not...”⁵⁷

Anthony Tommasini, writing for the *New York Times*, in “Hard to Be an Audiophile in an iPod World” declares that “over the last decade the ranks of true audiophiles have been thinning, in large part because of the growing popularity of MP3

⁵⁶ This was also used by those who fought the introduction of the CD, claiming that the act of conversion between digital and analog forced a distortion of the sound.

⁵⁷ Ron Harris, “Digital Music Libraries and Devices Portend Death of Hi-Fi Sound,” *SFGate.com*, April 17, 2007, <http://www.sfgate.com/cgi-bin/article.cgi?f=/n/a/2007/04/17/state/n132423D15.DTL>. As is the case with most AP stories, this story was printed in numerous locations, this being one of them. His use of Circuit City’s layoffs as an example is particularly troubling because they were employees who were deemed to be making too much money so should be replaced with lower-cost labor. There was no mention of audio-market problems as a reason anywhere else.

players and iPods.” Unlike Harris, Tommasini finds store owners who claim business is great, but Tommasini draws a firm line between “true” audiophiles and the new consumers who want high quality sound with new HDTVs. I argue, however, that these consumers are an extension of the real, rather than romanticized conceptions of, audiophiles from the 1960s and 70s.⁵⁸

Many members of the home theater communities refuse to identify themselves as audiophiles due to the negative associations described above. In my survey of members of the Audioholics forum I asked if they considered themselves audiophiles and all of them said no.⁵⁹ One described himself as a “recovering audiophile.” This is despite many spending thousands of dollars on audio equipment and actively participating in the community. On the user created dictionary website urbandictionary.com, Clint DeBoer, the editor-in-chief of Audioholics, posted a definition of audioholic including: “They differ from audiophiles in that they enjoy multi-channel surround sound and are less susceptible to ultra expensive components that ‘command’ respect solely based on price and prestige.”⁶⁰

Scholars have also limited examinations to the extreme end of audiophiles, although often doing so consciously. In Marc Perlman’s article “Consuming Audio” he describes audiophilia as a “community that cannot sharply be delineated; it shades off on one side into the great mass of casual consumers and on the other into the professional coterie of engineers.” He suggests that we may be best off defining the community

⁵⁸ Anthony Tommasini, “Hard to Be An Audiophile in a iPod World,” *The New York Times* (November 25, 2007).

⁵⁹ The first question of a survey asked to members of the forums at <http://forums.audioholics.com/forums/> asked if they considered themselves an Audiophile and why or why not.

⁶⁰ Clint DeBoer, “Audioholic,” *Urban Dictionary* (January 3, 2008) <http://www.urbandictionary.com/define.php?term=audioholic> (Accessed July 9, 2008)

through topics of debate rather than positions. Perlman is not required to delve further into a definition because his study looks at a small and more extreme subsection interested in ‘specialty’ audio. These consumers are defined by spending over \$5000 and tweaking (personally adjusting) their systems. Perlman’s concept is a useful beginning for understanding that there is a wide variety of consumers who can fit under the audiophile umbrella. Perlman’s interest in topics of debate allows for a unification of the music only audiophiles seen by Tommasini and those with other uses for finding the best sound.⁶¹

A wide diversity of interests even exists within the publications that still cater to the small group of more extreme audiophiles discussed by Perlman. Frequently the motivations of this group are questioned and challenged, both by scholars as seen in Aden Evens’ *Sound Ideas*, where he suggests that they are more technophile than audiophile, and by members of the group itself. In a 2006 editorial by Wayne Garcia “Are Audiophiles Really Music Lovers?” for *The Absolute Sound* (the publication Evens focuses his attention on) Garcia challenges his readers to become more interested in music. He agrees with Evens that many are simply technophiles using music as a medium to express their interest in technology. For Garcia others just listen to the same few albums they have loved since childhood, having never become true music fans who seek out and learn to appreciate a wide variety of content, for him the definition of a true music lover. Garcia goes so far as to call these habits “backasswards.”⁶²

⁶¹ Marc Perlman, “Consuming Audio: An Introduction to Tweak Theory,” in *Music and Technoculture*, edited by Rene T. A. Lysloff and Leslie C. Gay Jr. (Middletown, CT: Wesleyan University Press):346-357.

⁶² Wayne Garcia, “Are Audiophiles Really Music Lovers?” *The Absolute Sound* (September 2006): 15. A discussion of the public image problem from the perspective of audiophiles themselves can be seen in Michael Fremer, “The Swift Boating of Audiophiles,” *Stereophile* (February, 2008).

While limiting the definition of audiophile to these more extreme consumers does reveal a group diminishing in population, taking a broader approach by including, amongst others, the home theater community, which I will demonstrate is historically justified, leads to a group that is flourishing. Even using this broader definition not everyone who owns a high definition TV with a set of surround sound speakers and refers to it as a home theater should qualify as an audiophile. The home theater users who I include are actively concerned with sound beyond these basic systems, as expressed through reading publications such as *Sound and Vision* or participating in communities devoted to home theaters. Especially for those taking part in the communities, they are actively taking parts in debates on audiophile topics, Perlman's method of delineating audiophiles from everyone else. For my research I have examined two of the most popular communities, AVSForum, a discussion forum and Audioholics, a web-magazine and discussion forum. On both of these forums, the subsections for sound equipment and other audiophile topics are very active with thousands of members. I have also examined the long-running and popular podcasts associated with these websites (HDTVGuys for AVSForum and AVRant for Audioholics) both of which clearly emphasize the role of sound in the home theater experience; probably because sound provides an area that is easy to upgrade in small ways, through new speakers, subwoofers, receivers, amplifiers, etc. all of which can be purchased independently (compared to new display devices which are often purchased for long-term use and must be replaced entirely instead of upgrading single parts).

These overlapping communities attract both traditionally defined and perhaps “extreme” audiophiles along with a wide variety of consumers who want to find the best

products that require little or no tweaking, and those who plan to turn their room into the equivalent of a real movie theater (sometimes going so far as to include popcorn machines). David Bott, one of the administrators for AVSForum claims that the site has nearly 2 million unique visitors every month, a number that all of the earlier print audiophile publications could never approach even when combined.⁶³

The inclusion of home video in discussions of audiophiles has a long history. *High Fidelity*, a leading audiophile publication beginning in the early 1950s began including significant video coverage in 1967. The middle section of the magazine's table of contents changed from "sound reproduction" in January of 1967 to "Audio and Video" in February of the same year. The impetus for this change was a new column: VTR (Video Tape Recording) Topics. At the time, video tapes were uncommon, but "destined to find its way into the home." Opposite the article appeared an advertisement for a Sony home Videorecorder.⁶⁴

Space for video coverage within *High Fidelity* remained without much controversy until a 1981 *New York Times* article by John Rockwell pointed out that as coverage of video technologies and popular music increased the number of reviews of classical recordings, a traditional selling point for the publication, had diminished significantly, from approximately 20 per issue to 9 or 10.⁶⁵ This came at the same time that *High Fidelity* began a multi-part "special bonus supplement:" "Video Today." The magazine printed two letters in response, the first suggesting "Don't ignore video

⁶³ David Bott, "Advertise on AVS Forum," *AVSForum* (December 6, 2006) <http://www.avforum.com/avs-vb/announcement.php?f=43&announcementid=102> (Accessed July 9, 2008).

⁶⁴ Norman Eisenberg, "VTR Topics: Video Tape Recording – The Prospect Before Us," *High Fidelity* 17, no. 2 (February, 1967): 134.

⁶⁵ John Rockwell, "News of Music; High Fidelity Reviews at Low Volume," *The New York Times* (June 18, 1981).

completely, just devote less space to it.” The complaints fell on mostly deaf ears, with a response from the editors that the high quality of classical music reviews will continue and new formatting will allow the video coverage to take less physical space. Clearly, however, video was well within the range of concerns for the audiophile community, and even those complaining felt it had a place in the publication.⁶⁶

By the late 1990s no single publication, focusing primarily on audio could appeal to the diverse interests of audiophiles enough to maintain the high subscription numbers *High Fidelity* and the more widespread but “less serious” *Stereo Review* enjoyed during the previous decades. After numerous changes and mergers the resulting publication for more mainstream audiophiles was titled: *Sound and Vision*.⁶⁷ This new publication appeared in 1999, in the middle of the rise of post-fidelity and at the same time Napster and the super high-fidelity DVD-A (DVD –Audio) and SACD (Super Audio CD) formats appeared on the market. These formats were designed with the home theater crowd in mind, promising the same surround sound experience audiophiles were experiencing in movies in music.

DVD-A and SACD: Fidelity at the turn of the Century

Most discussions concerning the MP3, Napster, and the iPod point to the music industry as a stagnant source of power: fighting to maintain the status quo of compact discs. This assumption, however, is far from the truth. The industry remained in the fidelity age that had dominated the past century. In 1999 and 2000 two new formats came to the market: SACD and DVD-A. These formats sought to improve fidelity with

⁶⁶ Mark Judman and Daniel Morrison, “Letters: A Call for Balance,” *High Fidelity* 31 No. 10 (October 1981): 8. In subsequent issues many letters praising the increase in video coverage were printed.

⁶⁷ The title began as *Stereo Reviews: Sound and Vision*.

the growing home theater audience in mind, offering not only improvements in traditional aspects of the sound over CDs (they offered a wider frequency range for example), but also surround sound which would take advantage of new high-end theaters using up to seven speakers spread around the room.

Surround sound was seen as the major selling point for both formats, knowing that all but the most extreme audiophiles probably could not hear a difference between the new formats and CDs based on increased sample rates and frequency ranges. From this perspective, the industry was positioned perfectly to appeal to the growing numbers of home theater audiophiles. These consumers were already equipped to experience surround sound music, and probably questioned wonder why their movies had better sound than music. In a 1999 *Stereo Review* article previewing the two formats by Gordon Borckhouse, one subsection was titled “The Hard Sell.” Pointing out that consumers were not demanding better than CD quality sound, he quotes Paul West of the Universal Music Group who said ‘it’s multichannel that is really going to propel DVD-Audio.’⁶⁸

Despite the efforts put forth by recording companies to push both of the two surround sound formats, neither one made an impact on the market, and they are mostly ignored by the modern audiophile community.⁶⁹ The failure of these formats represents the transition away from fidelity, with music already surpassing the point where consumers search for more accurate sound. One recent study has shown that the

⁶⁸ Gordon Brockhouse, “The Hard Sell,” *Stereo Review* (January 1999): 26. Ken C. Pohlmann, “DVD-Audio: A Sneak Peak At Pioneer’s Prototype Player,” *Stereo Review* (January 1999) places the same emphasis on the importance of surround sound for the new formats.

⁶⁹ *Sound and Vision* generally has one page in each issue for multiple short reviews of new releases on the formats, and the discussion forums for both Audiophiles and AVSForum are relatively unpopular.

increased frequency range can not be heard even by trained listeners.⁷⁰ In a more personal article, “The Deaf Audiophile,” Terry Teachout, writing for the *Wall Street Journal*, described the iPod as a “liberating” product that allowed him to escape the audiophilia of his youth. As an aging consumer, Teachout explains that the iPod is perfect because his hearing is declining, so he can no longer perceive the difference in quality as well as he may have when younger.⁷¹

Teachout finishes his article by pointing out that despite his lessened hearing the most important distinction is “between sound and silence.” This distinction depicts the true appeal of the iPod: accessibility of music. Audiophiles were originally drawn to the iPod, not necessarily as a replacement for their home systems, but for uses at times when the home theater was unavailable. Only after experiencing the iPod did the post-fidelity values bring their appeal to in-home listening devices as well, devaluing the home theater’s role in music consumption.

The change in priorities can be seen in a *Sound and Vision* editorial by Mike Mettler beginning the issue which celebrates the 25th anniversary of the Compact Disc. He displays the value of high-quality sound in his own listening experience by setting aside time every week to listen to surround-sound music in his home theater. He has installed upgraded sound systems in his car for “great-sounding tunes anywhere I go.” And, he has a “second iPod” upon which he rips songs and albums at higher bit rates.⁷² The implication in this statement is that Mettler fills what he considers his primary iPod

⁷⁰ E. Brad Meyer and David R. Moran, "Audibility of a CD-Standard A/D/A Loop Inserted into High-Resolution Audio Playback," *Journal of the Audio Engineering Society* 55, no. 9 (September 2007).

⁷¹ Terry Teachout, “The Deaf Audiophile,” *The Wall Street Journal* (November 10, 1997).

⁷² Mike Mettler, “Format and Function: The Methods of Music Delivery May Change, But the Song Remains the Same,” *Sound and Vision* (July/August 2006): 12.

with a massive quantity of lower quality songs. Furthermore, setting aside time on only a weekly basis to listen in his home theater, Mettler's average listening experience probably uses this first iPod filled with lower quality MP3s.

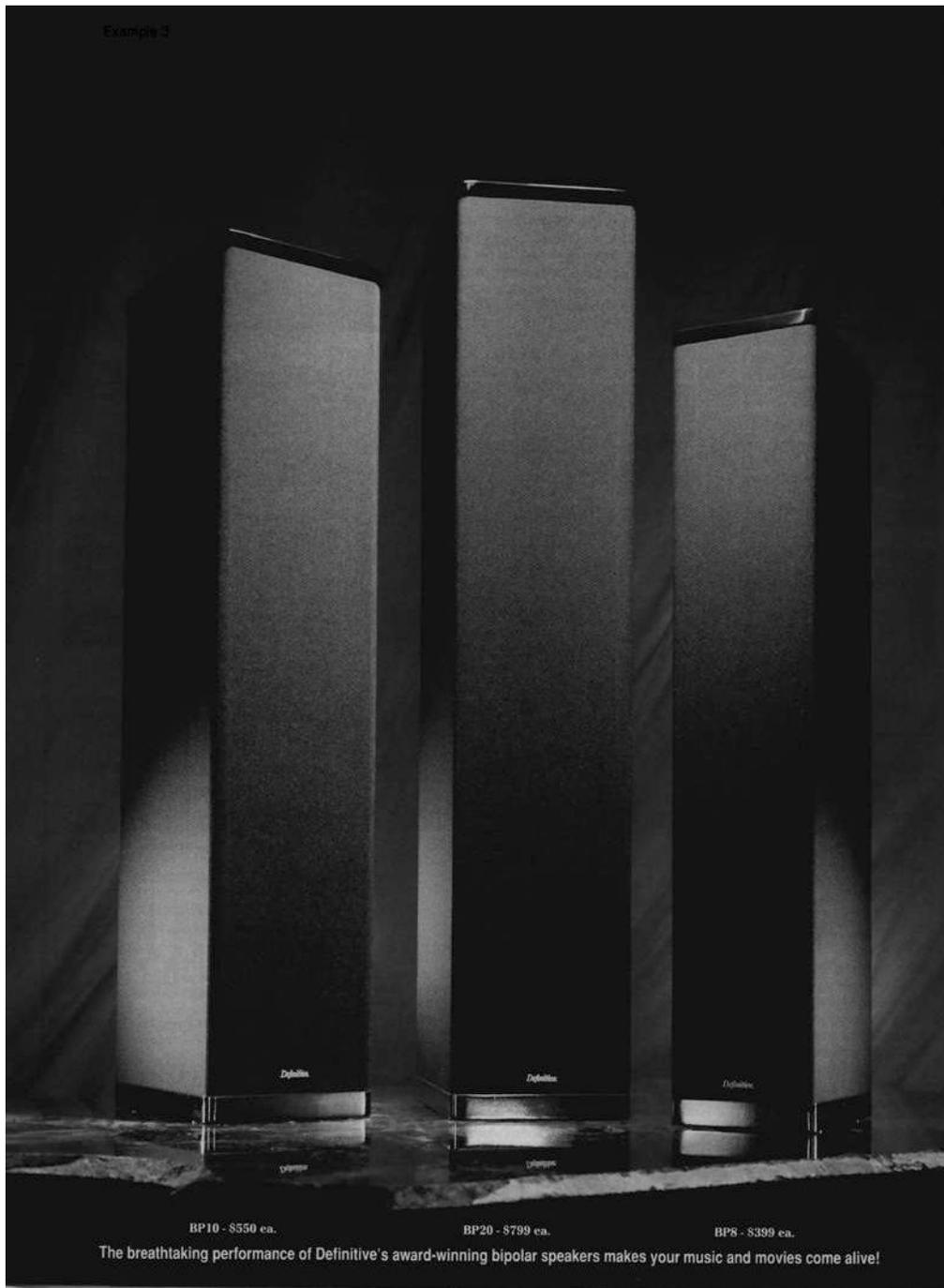
The High-End Products of Post-Fidelity

In the first chapter I discussed the rise of speakers as the defining component of household fidelity after the transition to digital music and the Compact Disc. In the iPod age, speakers have retained their prominence among consumers in the broadly defined group of audiophiles, but they are significantly different from the giant tower speakers found in the 1980s, both in appearance and methods of presentation. Advertising changed dramatically from the previous emphasis on fidelity, reflecting that the change in speaker design is meant to appeal to other interests beyond the sound. After examining selected speakers and advertisements in detail, I will look at some other types of products which have come to prominence. This will include many devices which turn the MP3 into the primary format for in-home playback, taking the ideals discussed in chapter two and using them to replace fidelity as the primary concern for in-home listening, even for audiophiles.

The speaker advertisements appearing in the 2000s provide a direct contrast with earlier ads in their use of both language and imagery. Looking at figure 3.2, a fairly standard advertisement from the previous two decades, the focus is on three large tower speakers. The image is designed to highlight the size and power of the object, which for readers correlated directly with sound quality and volume. The large towers were

considered by all parties to be a different class of speaker from smaller satellite speakers in regards to sound quality.

Figure 3. 2



In the post fidelity age speaker size no longer takes priority because the association with better sound is not enough to sell the product. Now the images are designed to draw in the consumers through new aesthetic values, both for the speakers themselves and using other visual stimuli. In figure 3.3 an advertisement displays a woman and a large TV (which is not a part of the system) as the main objects of visual attention in the room. The speakers blend in with the bare modernist aesthetic of the space, no longer large imposing objects but tiny rectangles held up on thin stands. Most peculiar is the woman in the center of the image who appears to be exercising. Music products have often been used for exercise by audiophiles, as seen in the early review of the iPod from chapter 2, but as in that case this function was reserved for devices that were known to have inferior sound quality. These, however, are serious and expensive speakers, not a small portable toy-like device. It is also clear that her workout is strenuous with music in the background due to the large visible sweat stain on the back of her shirt. This imagery does not reflect the sound (as seen in the Bose ad in chapter 1), but their ability to fit in the visual aesthetics of the room, which is confirmed by the text: “Subtle Style. Serious Sound,” emphasizing the visual before the aural quality of the speakers.

Figure 3.3

Micra 6 Performance Enhanced.

HOW GREAT IT IS
Take this simple system...

THE NEW Micra 6 SYSTEM FROM athena TECHNOLOGIES. SUBTLE STYLE. SERIOUS SOUND!

You will not believe the rich clean sound from a system so small it can go just about anywhere. An elegant center channel and four matching satellites come complete with adjustable mounting brackets, making for the perfect plasma or LCD display solution. The matching subwoofer is stylish enough to show off, or small enough to hide, providing deep rich bass to shake your soul. Come hear what all the critics have been raving about, the tiny Micra 6 from athena TECHNOLOGIES. Add a little soul to your system.

WINNER OF 2004 HOME THEATER **HOT**

FOR DEALER INQUIRIES
North America | API 3641 McNicoll Avenue, Toronto, Ontario, Canada M2X 1G5 • Tel: 416.321.1800
Australia | Audio Products Pty Ltd, Unit 6, 61-67 O'Riordan S, Alexandria, Australia 2015 • Tel: +612 966 93477
Europe | API Europa BV Dronnehouwing 2K, Galdermaalde, Netherlands 2101 NQ • Tel: +31202222222

AVAILABLE AT: **BEST BUY**

athena TECHNOLOGIES®

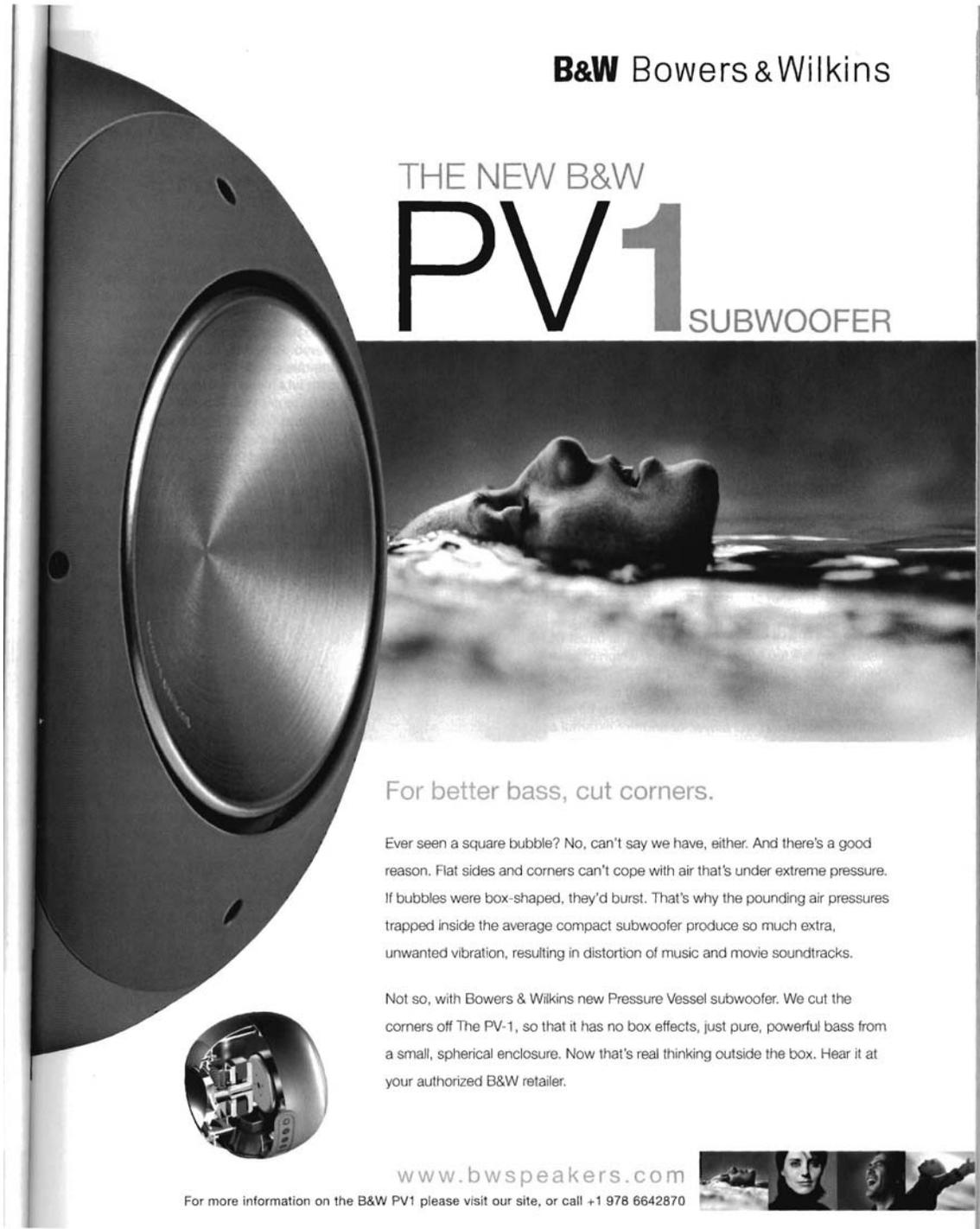
This advertisement may seek to address an issue frequently discussed amongst audiophiles: how to convince a significant other (most frequently a wife) that a system

can fit in the house.⁷³ In one potential reading of the advertisement, it demonstrates that even if the woman does not care about, or will not hear the difference high quality speakers will make they can still fit into and possibly improve her ordinary life. In other advertisements it is not so clear how the woman depicted is expected to interact with the product. Figure 3.4 shows another example of an advertisement focused on a woman. She is in a bath tub pictured next to a separate image of the subwoofer. It is difficult to understand how the woman and the speaker relate to each other. If she listens to music while in the bathtub, it most likely would not be through one of these expensive speakers, which should probably be kept away from water. Her ears are even underwater; not the best state in which to listen to high quality music.⁷⁴ These ads clearly represent a different focus than what would be seen only a few decades earlier, for example the famous Maxell ad shown in figure 3.5. There is no doubt that his mind is on one thing: the music.

⁷³ In responses to my survey of members from the Audioholics forum this problem seems increasingly rare. Most responded that their wives were accepting of home theater systems and even enjoyed using them, probably because they knew what they were getting into when they chose to marry an audiophile.

⁷⁴ The tenuous connection between the images is the use of bubbles in the text

Figure 3. 4



B&W Bowers & Wilkins

THE NEW B&W
PV1 SUBWOOFER

For better bass, cut corners.

Ever seen a square bubble? No, can't say we have, either. And there's a good reason. Flat sides and corners can't cope with air that's under extreme pressure. If bubbles were box-shaped, they'd burst. That's why the pounding air pressures trapped inside the average compact subwoofer produce so much extra, unwanted vibration, resulting in distortion of music and movie soundtracks.

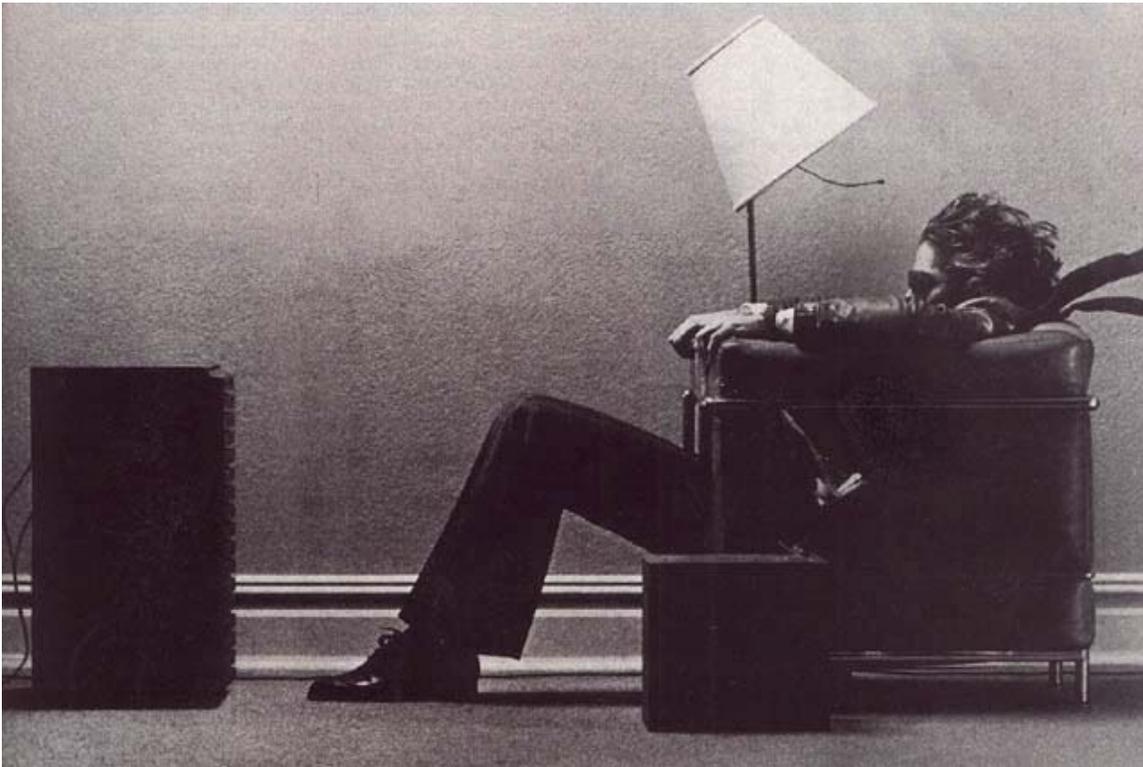
Not so, with Bowers & Wilkins new Pressure Vessel subwoofer. We cut the corners off The PV-1, so that it has no box effects, just pure, powerful bass from a small, spherical enclosure. Now that's real thinking outside the box. Hear it at your authorized B&W retailer.

www.bwspeakers.com

For more information on the B&W PV1 please visit our site, or call +1 978 6642870



Figure 3. 5



iPod As the Center of Home Music

In addition to the new approach to speaker advertisements, the effects of the transition to post-fidelity music consumption can be seen in the other products which are both advertised, and more importantly featured in articles and reviews. One leading category of product is the media center, which distributes music around an entire house. There is a wide variety of systems capable of accomplishing this feat, some are more advanced receivers, and others are entire music servers where music can be stored. More technologically savvy consumers can create their own product by dedicating a high-end computer to this task. These products are notable for their position in the post-fidelity world because they are both incredibly expensive, but also tend not to promote the use of MP3s, either stored on the server or through a connection to an iPod.

In a February/March 2007 review of SpeakerCraft's MODE Multiroom Audio System, *Sound and Vision's* John Sciacca used his iPod with the device, as expected by the creators of the product who sell iPod docks specifically for it. iPod docks are common devices, but this system is meant to provide sound for the entire home, costing over \$2,000. Sciacca praises the device both for its keypad which is similar to the iPod and for its strong integration with iPods. Nowhere is the comparison of the cost of the device to the quality of music that would come from an iPod mentioned.⁷⁵

Many of the servers, which include a hard drive (the MODE had one available as an accessory which was not part of the review) are notable for their assumption that users are not interested in CD-quality. In the July/August 2006 issue of *Sound and Vision*, one of the featured articles showcased three wireless music systems. Of the three systems, which range from \$999 to \$2,200, the ability to store and play music at even CD-quality was not very important. The cheapest of the three systems (the Philips Music Center) could store only 160 kbs MP3s at best (this is one step above average which is 128 kbs). For the others which were capable of either lossless or even completely uncompressed music that factor was overshadowed, not nearly as important as the options available for compression, the assumed method of filling hard drives with 160 and 200 gigabytes of storage.⁷⁶

Even *The Absolute Sound*, which has catered increasingly to LP users felt a need to cover home music servers. In the December 2007 issue, one of the main features was a discussion of the values of music servers, two major product reviews, two interviews,

⁷⁵ John Sciacca, "Review: SpeakerCraft MODE Multiroom Audio System," *Sound and Vision* (February/March 2007).

⁷⁶ Ken C. Pohlmann, "Dream Stream: Three Wireless Music Systems for the Digital Age," *Sound and Vision* (July/August 2006).

and a few other articles, including instructions to make your own PC-based music server (for the more technophile side). In the article introducing the section “The Brave New World of Music Servers,” Robert Harley points out many of the qualities that have come to typify the post fidelity experience as reasons for using a music server: 1. Convenience, 2. Exploring your existing music library, 3. Discovering new music, 4. Sound Quality, 5. Sociability. Harley does include sound quality, catering to his more traditional audience. The claim of greater sound quality is supported by one of the articles: “Do Hard-Disk Drives Sound Better than CD?”⁷⁷

On the forums for Audioholics discussions of actual music tend to concentrate on the post-fidelity emphasis on variety, with people listing their favorite artists or songs belonging to specific categorizations. Detailed discussions or personal reviews of single albums and recording values as would have been seen amongst the traditional audiophiles who sought out only the “best” recorded albums are rare. The most viewed postings are for “best female voice,” “best male voice,” and “20 albums you should own but probably don’t” all of these involve users recommending albums to each other for various reasons, rarely including recording quality. Instead users try to describe the appeal of the music itself. In the first post of the “20 albums” discussion, Rob Babcock, one of the forum moderators, describes Built to Spill’s *Ancient Melodies of the Future* album as “Good hard alt rock with smarts and killer guitar riffs. Very catchy stuff with great songwriting and lots of hooks, *Ancient Melodies of the Future* might just convince you that Doug Marsch is a friggin' genius.”⁷⁸

⁷⁷ Robert Harley, “The Brave New World of Music Servers,” *The Absolute Sound* (December 2007): 47. Robert Harley, “Do Hard-Disk Drives Sound Better than CDs?” *The Absolute Sound* (December 2007).

The forums also clearly demonstrate the rise of visual aesthetics seen in the advertisements, as an important part of the new consumption experience. Both the Audioholics forums and AVSForum have sections where members post pictures of their home theaters. These vary from a few speakers with a CD-player to in-home movie theaters complete with red curtains and popcorn machines. Discussion of these systems is limited mainly to visual aesthetics and style. Other smaller review sites have taken advantage of the popularity of style and visual aesthetics in speakers in different ways. On the website Audiojunkies.com the most popular posting ever is titled “The World’s 15 Sexiest Speakers Put Your Girlfriend to Shame”⁷⁹

The terms sound reproduction and recording both imply that the goal is the recreation of a specific sound event. In light of these terms it makes sense that the goal of the industry be that of improved fidelity. This goal of improved fidelity maintained its appeal for over a century while other aspects of the technology, including discs which held more music, were more durable, and eventually smaller, were seen as secondary. The priority of fidelity was maintained through the influence of audiophiles, or consumers who took pride in having the best listening experience in their home. These consumers were joined by the industry which used advertisements to promote an ideology of fidelity, knowing that it would allow for endless improvement meaning repeat sales of the same content to the same consumers on new and improved formats.

⁷⁸ Rob Babcock, “20 Albums You Should Own But Probably Don’t,” *Audioholics Home Theater Forums* (June 22, 2005) <http://forums.audioholics.com/forums/showthread.php?t=11452> (Accessed July 9, 2008)

⁷⁹ Lucas Gilkey, “The World’s 15 Sexiest Speakers Put Your Girlfriend to Shame,” *Audio Junkies* (October 22, 2007) <http://www.audiojunkies.com/blog/711/the-worlds-15-sexiest-speakers-put-your-girlfriend-to-shame> (Accessed July 9, 2008).

The strategy of fidelity worked even when changes were inaudible to most consumers because they trusted the industry and the press that improvements were real.

The fidelity-age ended when, due to Napster and Winamp, massive numbers of consumers were provided with an alternative to the doctrine of fidelity. Realizing that close to CD-quality really was good enough when able to be stored in massive quantities, easily transferred, and instantly transitioned between; a new ideal musical experience began to appear. This did not come to fruition until the appearance of the iPod, which challenged the industry's ideology of fidelity with its own advertisements focused on accessibility, functionality, and style. Next, many of the audiophiles, who had not been a truly coherent community since the introduction of the Compact Disc, followed the appeal of these new values in consumption. In the new, post-fidelity age, listening to "high-fidelity" music has become an increasingly rare special event. Now, the ideal musical experience is as much about convenience and style as about sound.

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