Rapt/Wrapped Listening: The Aesthetics of "Surround Sound"

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This essay is prompted by my personal experience with Dolby 5.1, the sonic results of which have been evident in cinemas since the late 1970s and the encoding for which, on the soundtracks of DVDs, since the turn of the century has been fairly ubiquitous. More to the point, this essay deals with the aesthetic differences (not just perceptual but also affective) between listening closely to environmental sounds in real life and listening to re-creations of more or less those same sounds, via a Dolby system or otherwise, in the privacy and comfort of one's home.

Dimensional hearing

The homophonic adjectives in the essay's title refer to two "conditions" of listening, one of them psychological and the other physical.

In the first case, the condition of "rapt" listening has nothing at all to do with the content or quality of the sonic phenomenon at hand but only with the decidedly unilateral relationship between that phenomenon and its perceiver. Our English word "rapt" of course derives from the past participle of the Latin verb *rapere*, which means "to seize." This Latin root is the source of the term we use for birds such as eagles and hawks that swoop down from the sky and, with sharp talons, suddenly seize their prey; it is also the source of the word we use for the heinous criminal act in which a person is somehow—usually sexually—violated after first having been somehow "seized." On a more positive note, the Latin *rapere*, and more particularly its past participle *raptus*, is the source of the English word we use to describe the state of being so "taken" with something or other—so "seized" by it—that the "enraptured" person is, willing or not, in effect "transported" to a new and perhaps elevated state of feeling or even of existence.

But our English word "rapt" also means something not nearly so won-drously ecstatic, or so scarily violent. The word "rapt"—and this is how I am using the word here—simply means "attentive," although not just slightly attentive but very much attentive. The person who pays rapt attention to something or other is at least for the moment truly and deeply focused on that stimulus; in the mind of the rapt attender—whether he or she be lis-tening to music or playing chess or doing a crossword puzzle, or knitting or repairing a motorcycle—there is no room for distraction. To use the term in circulation since the mid 1970s when it was introduced into the vocab-ulary by the Hungarian-American psychologist Mihály Csíkszentmihályi, the rapt attender is experiencing "flow," or—as Csíkszentmihályi puts it in the subtitle of one his numerous books on the topic—"the psychology of optimal experience";[1] to use a phrase current amongst players of computer games, the rapt attender is "in the zone."

The vast pigeonhole of rapt listeners certainly includes the erudite Wagner idolater who, while indulging in a live or recorded performance of the "Liebestod" from *Tristan und Isolde*, in effect "parses" every single nuance and compares the results with every other performance of this music that he or she has ever heard. But the pigeonhole of rapt listeners also includes the infant who suckles at its mother's breast as she sings a wordless lullaby. As noted, "rapt" listening has nothing at all to do with the content or quality of the music, or the sonic phenomenon, at hand; it has to do only with the intensity with which the listener relates, psychologically, to the sonic stimulation.

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The condition of "wrapped" listening, on the other hand, has to do only with the listening experience's physical circumstances, circumstances that we likely take for granted when we encounter them in our everyday lives

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1   Born in 1934 to a Hungarian family living in Rijeka (Croatia)—a city that at the time was known as Fiume, part of the Kingdom of Italy—and since 1969 a professor of psychology at the University of Chicago, Csíkszentmihályi first used the term "flow" in his *Beyond Bore-dom and Anxiety: The Experience of Play in Work and Games* (San Francisco: Jossey-Bass, 1975). The widespread popularity of the term doubtless owes to its appearance as the one-word main title of Csíkszentmihályi's first mass-market book, *Flow: The Psychology of Opti-mal Experience* (New York: Harper and Row, 1990). Capitalizing on the popularity not just of the term but of its underlying concept, in 2000 the publishers of the earlier book retitled it *Beyond Boredom and Anxiety: Experiencing Flow in Work and Play*.

but which we tend to celebrate when they are artificially re-created by stereophonic audio systems.

Human beings have just two ears, yet most of the time we listen *three*-dimensionally; the exceptions to that generalization, contrary to nature but increasingly common since the invention of the Sony Walkman portable cassette player in 1979, involve instances when, for a multitude of reasons that surely include psychic self-protection, by means of headphones or "earbuds" we make a conscious choice to limit our intake of sound.[2] Except in such instances, with our two ears we listen three-dimensionally. And we do this because we are living creatures.

Were we robots, with our heads fitted on either side with microphones, we could sit motionless and have our electronic brains compare the differences in amplitude of a single sound whose vibrations are taken in simultaneously by both of our mechanical "ears"; by noting which of the two signals seems to be louder, we could determine the extent to which the source of the sound in question exists to the right or to the left of our robotic heads. But the electronic brain between the microphonic "ears" would be able to determine only that the sound source is located within one or the other of those two broadly defined areas. The robot's electronic brain would easily know that the sound comes from the left or from the right; it would not be able to determine the extent to which the sound comes from in front

2   Defenders of the cassette-based Walkman and its digital successors typically argue that the devices' prime value lies in its allowing the "average person"—like the nursery rhyme's "fine lady" from Banbury Cross who sported "rings on her fingers and bells on her toes"—to "have music wherever she (or he) goes." But numerous critics, vociferous especially in the 1990s, have labeled the Walkman (and other players) as devices whose main purpose is to insulate their users from the world around them. For pioneering commentary on the Walkman, see Shuhei Hosokawa, "Considérations sur la musique mass-médiatisée," *International Review of the Aesthetics and Sociology of Music* 12, no. 1 (1981): 21–50, and "The Walkman Effect," *Popular Music* 4 (1984): 165–80, partially derived from Hosokawa's *Walkman no Shûjigaku* (*The Rhetoric of Walkman*) (Tokyo: Asahi Shuppan, 1981), which remains untranslated into English but is available in German as *Der Walkman-Effect*, trans. Birger Ollrogge (Berlin: Merve Verlag, 1987). For later commentary, see, for example, Iain Chambers, "A Miniature History of the Walkman," *New Formations* 11 (1990): 1–4; Theodore Gracyk, "Listening to Music: Performances and Recordings," *Journal of Aesthetics and Art Criticism* 55, no. 2 (1997): 139–50; and Michael Bull, "The World According to Sound: Investigating the World of Walkman Users," *New Media & Society* 3, no. 2 (2001): 179–97. For extended overviews, see, for example, Paul du Gay et al., eds., *Doing Cultural Studies: The Story of the Sony Walkman* (London: Sage Publications, 1997), and Andrew Williams, *Portable Music & Its Functions* (New York: Peter Lang, 2007).

of or behind its head, or from above or below it. This is because our robotic heads and ears would not move.

In contrast, our human heads and ears, like the heads and ears of all warm-blooded creatures, *do* move, and constantly. No matter how hard we try, we cannot—as a robot might—sit motionless. Our mere breathing causes our hearing apparatus to move; even if we held our breaths, the apparatus would still move because of the percussions of our heartbeats. And with each ever-so-slight movement comes, automatically, a shift in the relationships between various binary (i.e., left and right) fields of aural in-take. Whereas a robot's brain can compare the volume levels registered by a pair of immobile mechanical "ears" and calculate that the source of a particular sound exists *somewhere* within the left or right halves of a 360-degree sonic plane, the human brain—inside a head that not only moves on a rotational axis but also is "cocked" this way and that—can make comparable determinations in regard to an almost infinite number of sonic planes and thus determine, in an instant, the precise *direction* from which a sound seems to come.[3] Simply because we live and breathe, we are always "wrapped" in sound, with our sound-perceiving human selves located at the very centers of listening spaces that are not circular but spherical.

Dolby

The latest incarnations of consumer-oriented "surround sound" audio systems capitalize on the idea that people apparently enjoy being reminded that they naturally inhabit spherical listening spaces. But full-blown theatrical installations of the so-called Dolby Atmos system, with speakers located not just at the auditorium's front and rear but also embedded in the ceiling and floor, are to date few and far between.[4] And the at-home system

3   Anyone who doubts the natural human capacity for determining the directionality of sound need only attend briefly to the environment with only one ear. This experiment will not succeed if a person merely holds a hand over an ear or uses an earplug, for such efforts will decrease but not entirely eliminate an ear's in-take; for the experiment to work one needs to place a finger on the tragus (the bit of cartilage located at the front of the outer ear) and *firmly* press so that the cartilage in effect seals the ear canal. Just a few seconds of one-eared listening should be enough to convince participants that the perception of sonic directionality depends crucially on the ability to hear with not just one ear but two.

4   The Dolby Atmos system was demonstrated for the first time in 2012; its "breakthrough" film was Alfonso Cuarón's 2013 *Gravity*, which won Academy Awards for both "sound editing" and "sound mixing," but the system is currently installed in fewer than 5,000 cinemas

that is sometimes marketed as Dolby Atmos, but which is more accurately described as Dolby 7.2, is an only slightly expanded version of the older and more familiar Dolby 5.1 technology.[5]

My personal relationship with at-home Dolby 5.1 began just three years ago, when it became clear to me that I could not possibly write a promised monograph on sonic style in the films of Terrence Malick without engaging fully with this particular filmmaker's crafty use of "surround sound." Before this I had been content to hear the soundtracks of Malick's films, and the soundtracks of films by countless other directors, through a simple two-channel stereo setup; I confess to not even noticing that most of the DVDs I had acquired since the turn of the century feature on their back covers tiny icons that indicate the stereophonic extent—accessible, of course, only to those with the requisite playback equipment—of their soundtracks.[6]

Having at long last installed in my apartment the "surround sound" amplifier and six speakers, it was obviously with fresh ears that, early in 2017, I listened again to Malick's *Days of Heaven*. By this time *Days of Heaven* was hardly new to me. I had indeed encountered the film in the cinema when it was first released in 1978, and it was my vivid memory of a linked pair of scenes near the film's start (when more than a minute of very loud noise from within a steel mill immediately follows a few seconds of very quiet

worldwide. For details, see, for example, Benjamin Wright, "Atmos Now: Dolby Laboratories, Mixing Ideology and Hollywood Sound Production," in *Living Stereo: Histories and Cultures of Multichannel Sound*, ed. Paul Théberge, Kyle Devine, and Tom Everrett (New York: Bloomsbury, 2015), 227–46; Dong Liang, "Sound, Space, *Gravity*: A Kaleidoscopic Hearing (Part I)," *The New Soundtrack* 6, no. 1 (2016): 1–15; and "Dolby Surpasses 4,000 Dolby Atmos Screens Worldwide," *Boxoffice*, October 4, 2018, https://www.boxofficepro.com/dolby-surpasses-4000-dolby-atmos-screens-worldwide/. For a critical discussion of how *Gravity*'s dimensional sound, especially in its opening scenes, relates to the narrative, see Alison Walker, "Sonic Space and Echoes of the Flesh: Textual and Phenomenal Readings of *Gravity*," *Music, Sound, and the Moving Image* 14, no. 2 (2020): 119–39.

5   5.1 and 7.2 are not decimal fractions but indicators of an at-home audio system's array of speakers. 5.1 indicates five "surround" speakers—three in the front and two at the rear—and a subwoofer to which low-frequency sounds are assigned; 7.2 indicates seven "surround" speakers—the five just mentioned plus an additional pair located on either side of the listening space—and two subwoofers.

6   The icons take the form of squares embellished with dots. A monophonic soundtrack is indicated by a single dot located at the midpoint of the square's topmost side; a two-channel stereo soundtrack is indicated by a pair of dots on either end of the topmost side; Dolby 5.1 is indicated by three dots on the square's topmost side and two in the lower corners, plus an additional dot (representing the subwoofer) in the square's middle.

stream-side sounds) that prompted me to respond, more than twenty years later, to a "call" for contributions to an edited volume devoted to Malick's work. But my 2003 chapter dealt mostly with the formalistic and arguably "musical" qualities of that sequence and comparable sequences that I had observed elsewhere in *Days of Heaven* and in two other Malick films (*Badlands*, from 1973, and *The Thin Red Line*, from 1998). In this chapter I discussed the patterns of Malick's sounds, not the possible "meanings" of those sounds or their acoustical properties, and for the purposes of my analyses I could just as well have listened to all three films—albeit carefully and repeatedly—by means of a monaural speaker hung from one of the front windows of a car at a drive-in.[7]

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The French sound theorist Michel Chion, paraphrasing ideas first formulated by his teacher, Pierre Schaeffer, noted that for most of us there are "at least" three modes of listening, which he termed *causal listening*, *semantic listening*, and *reduced listening*.[8] Spread over a period of almost forty years, my relationship with the sounds of the above-mentioned pair of scenes near the beginning of Malick's *Days of Heaven* cycled through all three of these listening modes.

When I first experienced the film, as a paying customer at the cinema, I was interested primarily in the scenes' narrative content, and thus almost all that I really noticed was that the tiny percussion noises in the stream-side scene seemed to be caused by bits of scrap metal being tossed by gleaners into buckets, and that the tremendous din of the steel mill scene seemed to be caused by furnaces and heavy industrial equipment. When I re-en-

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7   The results of my formalistic analyses appear in James Wierzbicki, "Sound as Music in the Films of Terrence Malick," in *The Cinema of Terrence Malick: Poetic Visions of America*, ed. Hannah Patterson (London: Wallflower Press, 2003), 110–22.

8   Michel Chion, *Audio-Vision: Sound on Screen*, trans. Claudia Gorbman, (New York: Columbia University Press, 1994), 25. Orig. *L'Audio-Vision* (Paris: Éditions Nathan, 1990). In a revised edition (Paris: Armand Colin, 2017), Chion changed the second of the three terms from "écoute sémantique" to "écoute codale," and it appears as "codal listening" in Gorbman's new translation (2019) for Columbia University Press. In both editions, Chion acknowledges that the concepts of different modes of listening, and especially the ideas of "semantic listening" and "reduced listening," had earlier been explored by Pierre Schaeffer in his 1966 *Traité des objets musicaux*. Schaeffer's book, translated by Christine North and John Dack, was published in 2017 as *Treatise on Musical Objects: An Essay across Disciplines* (Oakland, CA: University of California Press).

gaged with *Days of Heaven* for the sake of the aforementioned book chapter, my concern was with these scenes' quasi-musical semantic properties, by which I mean the way in which the nine-second episode of *pianissimo*, holding to a model perfected by such theatrical-minded symphonic composers as Beethoven and Mahler, in effect forces listeners to "dilate" their ears so that they might be impacted all the more powerfully by the ensuing eighty-two seconds of *fortissimo*. By the time I re-engaged again with *Days of Heaven* for the purposes of the monograph,[9] I was so familiar with the purely sonic content of these two scenes that I could transcribe it into more or less conventional musical notation,[10] but what was new to me—and what was strikingly "brought home" to me as I listened to the film for the first time with my just-installed Dolby 5.1 system—was the idea of these scenes' sounds as tangible "objects"; during the stream-side scene I *felt*, almost literally, as though I were being enveloped in a mist of metallic droplets, and during the scene in the mill's interior I comparably *felt* as though I were being physically assaulted, the relentless barrage discomforting to the extreme not just because the various thuds and crashes were in themselves so forceful but also because each of them hit me from a direction I could not anticipate.

Having been thus "wrapped" (and soundly "rapped") by the opening sounds of a film I thought I knew, I listened with "rapt" attention, again and again, to the entirety of Malick's by this time much-expanded oeuvre.[11] More relevant to my current contemplation of the aesthetics of "surround sound," I re-listened as well to most of the other films that, along with *Days of Heaven*, constituted the first wave of "the Dolby era" that in the late 1970s "exploded in all its novelty and excitement."[12] These early Dolby-encoded

9 James Wierzbicki, *Terrence Malick: Sonic Style* (New York: Routledge, 2019).

10 A transcription of the noises in the steel mill scene is included in my "Zvukovoy ryad kak muzyka: o novykh putyakh v izuchenii kinoiskusstva" [Hearing Sound as Music: On New Directions in Film Studies], *Nauchnyy vestnik Moskovskoy konservatorii* [Journal of Moscow Conservatory] 3 (2013): 120–35.

11 Malick's work by this time included not just the three already mentioned films but also *The New World* (2005), *The Tree of Life* (2011), *To the Wonder* (2012), *Knight of Cups* (2015), and *Song to Song* (2017). Malick released a ninth film, *A Hidden Life*, in 2019.

12 Gianluca Sergi, *The Dolby Era: Film Sound in Contemporary Hollywood* (Manchester: Manchester University Press, 2004), 3. Throughout his book Sergi suggests, although not always convincingly, that "the Dolby era … has its roots in the cultural and political movements of the 1960s" (3). He makes his strongest case, arguing for a linkage between "changes in cinema architecture" and "the rise of a 'new' audience" for film, in his final chapter ("The Politics of Sound").

films of course included George Lucas's 1977 *Star Wars*, which almost overnight made Dolby "surround sound" the norm because the director's unusual arrangement with his distributor, Twentieth Century-Fox, specified that this much-anticipated film could *only* be exhibited in cinemas equipped with potent subwoofers and speakers located not just at the front of the house but also at the rear; these films also included Steven Spielberg's *Close Encounters of the Third Kind* (1977), Richard Donner's *Superman* (1978), Philip Kaufman's re-make of *Invasion of the Body Snatchers* (1978), Michael Cimino's *The Deer Hunter* (1978), Jerzy Skolimowski's *The Shout* (1978), Francis Ford Coppola's *Apocalypse Now* (1979), Ridley Scott's *Alien* (1979), Ken Russell's *Altered States* (1980), Martin Scorsese's *Raging Bull* (1980), Spielberg's *Raiders of the Lost Ark* (1981), Scott's *Blade Runner* (1982), and Steven Lisberger's *Tron* (1982).[13]

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Even before my listening binge was over, I realized that these early Dolby films fell into two basic categories. In the smaller group were films that I found, and still find, to be genuinely interesting; in the larger group were films that for me, back when I first experienced them in the cinema and when I experienced them again for the sake of my research project, have been entertaining but never much more than that. The interesting films explored human situations; their ear-catching instances of "surround sound" were few and far between, and usually brief, and more often than not they involved the relatively quiet noises of natural environments. In marked contrast, the merely entertaining films celebrated adventure; they teemed with "surround sound," most of it involving the relatively loud noises of violent action and/or sophisticated—indeed, sometimes futuristic—technology.

Lest I seem self-contradictory here, I grant straightaway that the steel mill incident that occurs early in *Days of Heaven* indeed features both the noise of technology and a depiction of violence, and that the opening scenes of both *Close Encounters of the Third Kind* and *Raiders of the Lost Ark* indeed revel in environmental sounds. But *Days of Heaven*, once set in motion, settles

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13   Paraphrasing work by Jay Beck, Mark Kerins reports that "less than three years after *Star Wars* premiered, the Dolby Stereo format had already been used on 85 feature films, and decoding equipment had been installed in over 1,200 theaters." Mark Kerins, *Beyond Dolby (Stereo): Cinema in the Digital Sound Age* (Bloomington: Indiana University Press, 2011), 32. The figures come from Jay Beck, "A Quiet Revolution: Changes in American Film Sound Practices, 1967–1979" (PhD diss., University of Iowa, 2003), 171.

quickly into a conventional mode of storytelling built for the most part on front-and-center verbal content, the linear flow of its plot interrupted only occasionally by taciturn moments of "enveloping" naturalistic sounds. After a brief toot of extra-diegetic music, *Close Encounters* begins with the prolonged and almost deafening roar of a desert sandstorm, and *Raiders of the Lost Ark* begins with an extended scene whose sparse underscore is a pale backdrop for the rich cacophony of a South American jungle; in both of these Spielberg-directed films, however, the slow-paced and sonically immersive opening scenes are preludes to fast-unfolding narratives whose sequences of episodes consistently ratchet up suspense even as they provide audience members with a veritable crescendo of audio-visual spectacle.

That the soundtracks of so many of the first-wave Dolby films were *obviously* spectacular has not escaped the notice of critics who, like me, prefer cinematic experiences of a more subtle sort. Apparently drawn to meteorologic imagery, Charles Schreger early in the Dolby era wrote that upon first hearing the eponymous vocal utterance in Skolimowski's *The Shout* "the audience is suddenly inundated with a multitrack, all-enveloping, hurricane-force sound," and he went on to argue, as I argue, that the new Dolby technology *was* capable of much more than just "making the moviegoer think he has a typhoon between his ears."[14] Other writers described the standard Dolby gesture in biological terms, noting that the subwoofers especially provoked in listeners "a pure gut, … straight-to-the-brainstem physical response"[15] and that "big" sound soon became central to the potential blockbuster's "visceral aesthetic."[16] Still others likened the "vulgar extreme[s]"[17] of the early Dolby films—the spaceship fly-overs, the wham-bang vehicle chases, the shoot-'em-up fight scenes—to the thrills offered by amusement parks; with Dolby technology, the interior of the cinema became for patrons "a kind of sonic playground,"[18]

14　Charles Schreger, "The Second Coming of Sound," *Film Comment*, September/October 1978, 36.

15　Hudson Miller, quoted in Kerins, *Beyond Dolby (Stereo)*, 134. The comment from sound editor Hudson comes from an interview that Kerins conducted on 20 July 2004.

16　Paul Grainge, "Selling Spectacular Sound: Dolby and the Unheard History of Technical Trademarks," in *Lowering the Boom: Critical Studies in Film Sound*, ed. Jay Beck and Tony Grajeda (Urbana: University of Illinois Press, 2008), 252–53.

17　Ioan Allen, quoted in Sergi, *The Dolby Era*, 102. As a sound engineer, Allen worked closely with Ray Dolby on the development of the "surround system"; throughout the 1970s he liaised significantly between the Dolby company and various film studios.

18　Gianluca Sergi, "The Dolby Era: Sound in Hollywood Cinema 1970–1995" (PhD diss., Sheffield Hallam University, 2002), 125.

the sound designs in many cases "allow[ing] the filmgoer to *ride* the film rather than simply view it,"[19] its sonic attractions comparable to "mere fairground phenomena."[20]

Stereo

In fact, it was the recorded noise of a *real* fairground phenomenon—the "Atom Smasher" roller coaster at the Rockaways' Playland amusement park in Queens, New York City—that introduced listeners around the Western world to "surround sound."

This Is Cinerama, to be sure, was not the first film to lure audiences by offering them special content that was not just visual but also aural. In 1940 the Walt Disney Studios' *Fantasia* famously pioneered the use of multiple soundtracks whose mostly musical content emanated from loudspeakers located at the rear as well as at the front of auditorium. But *Fantasia* with its complex "Fantasound" setup[21] played to a limited audience before lingering pressures from the Great Depression and new economic pressures from the war in Europe all but forced Disney to close down the film's planned "road show"; despite *Fantasia* having been booked into almost ninety theaters, it was displayed in only thirteen,[22] and as early as April 1941—eight months before the United States entered World War II—the "Fantasound" amplification systems had been dismantled and rights to the film had been sold to RKO Radio Pictures. RKO reduced by a third *Fantasia*'s running time

19   William Whittington, *Sound Design & Science Fiction* (Austin: University of Texas Press, 2007), 108. Emphasis added.

20   Michel Chion, "Quiet Revolution … and Rigid Stagnation," trans. Ben Brewster, *October* 58 (1991), 79.

21   The workings of Fantasound are explained, in highly technical and richly illustrated detail, by its two principal designers—William E. Garity and John N.A. Hawkins—in "Fantasound," *Journal of the Society of Motion Picture Engineers* 37, no. 8 (1941): 127–46. Reader-friendly explanations of the system are offered by Jesse Klapholz in "Fantasia: Innovations in Sound," *Journal of the Audio Engineering Society* 39, no. 1/2 (1991): 66–70, and by Kristina M. Griffin in "Fantasound: A Retrospective of the Groundbreaking Sound System of Disney" (master's thesis, University of Colorado at Denver, 2015).

22   *Fantasia* opened on November 13, 1940, at New York's Broadway Theatre—not a cinema but a playhouse—and played there for forty-nine weeks. Its other venues, likewise playhouses whose relatively flexible schedules accommodated shutting down for at least a week so that Disney technicians could properly install the sound equipment, were in Los Angeles, San Francisco, Pittsburgh, Cleveland, Boston, Chicago, Philadelphia, Detroit, Buffalo, Minneapolis, Baltimore, and Washington, DC.

and released it with a *monophonic* soundtrack; in 1946 RKO re-issued *Fantasia* with its deleted segments for the most part restored,[23] but it was not until February 1956, after distribution of the film had been signed over to Disney's recently established Buena Vista company, that *Fantasia* became available with a soundtrack in two-channel stereo.

By this time, the term "stereo" (from the Greek στερεός, *stereós*, meaning "full" or "solid") had become something of a buzzword in the entertainment industry. At least since the 1850s the adjective had been applied to a visual device called the stereoscope that had its users viewing simultaneously a pair of photographs whose cameras had been located at least a few inches apart; the peepholes of the stereoscope's viewing apparatus guaranteed that each of the user's eyes saw only one of the photographs, and it was left to the user's brain to combine the two similar but slightly different images into a single image that—comparable to what a person commonly perceives when looking with both eyes at anything, focusing alternately on what seems to be close and on what seems to be distant—offered at least the *illusion* of depth. Applied to sound, the prefix "stereo" had been regularly used since the early 1930s to describe experiments in "binaural" sound—which offered an illusion not of three-dimensional depth but of two-dimensional spatiality—of the sort that Alan Blumlein and other engineers had been conducting under the auspices of various British record companies.[24] But in a sonic context the prefix circulated for the most part in the scientific community, and likely it

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23   The cut and then restored segments had mostly to do with explanatory commentaries by music critic Deems Taylor, but they included as well *Fantasia*'s original opening segment, which featured a visually "abstract" interpretation of Bach's Toccata and Fugue in D minor, BWV 565.

24   An article from 1941, contemporaneous with the Walt Disney Studios' *Fantasia*, indeed uses in its title the adjective "stereo*phonic*" to describe what Blumlein had been working on; see Harvey Fletcher, "The Stereophonic Sound-Film System—General Theory," *Journal of the Society of Motion Picture Engineers* 37, no. 10 (1941): 331–52. Most of the many patents filed during the period of Blumlein's experiments with "binaural" sound, however, used the never popular adjective "stereo*sonic*"; see, for example, the applications for the patents granted to Lloyd Espenschied (Sound Recording and Reproducing, US patent US1661793A, filed July 8, 1920, and granted March 6, 1928), Julius Weinberger (Sound Reproduction, US1850701A, filed November 10, 1928, and granted March 22, 1932), John F. Dreyer Jr. (Sound Reproducing System, US1915926A, filed October 17, 1930, and granted June 27, 1933), George L. Beers (System for Producing Stereosonic Effects, US2098561A, filed February 9, 1934, and granted November 9, 1937), and Robert H. Dreisbach (System for Sound Reproducing Apparatus, US2110358A, filed June 6, 1936, and granted March 8, 1938). For a detailed narrative account of Blumlein's work, see Robert Charles Alexander, *The Inventor of Stereo: The Life and Works of Alan Dower Blumlein* (Oxford: Focal Press, 1999).

was not until December 1952 that it entered the vernacular, when veteran broadcaster Lowell Thomas, speaking in the first-person plural, ended his introduction to *This Is Cinerama*'s post-intermission demonstration with the portentous words: "We call it stereophonic sound."

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Audiences at *This Is Cinerama* heard stereophonic sound aplenty, emanating from a quintet of speakers arrayed across the front of the house and a pair of speakers at the back. Only in a few of the film's segments, however, did the "surround" nature of the sonic mix call attention to itself: when the silence of a cathedral's interior is quietly broken by the voices of choristers processing from the rear;[25] when in the episode devoted to the water-skiing show the noise of a motorboat comes first from behind and then from the right and then moves from right to left; when, at the very start of the film, after Thomas's perhaps deliberately pedantic twelve-minute lecture on the history of humankind's relationship with imagery in general, the giant curved screen in effect "opens wide" to offer a full-color rider's-eye (and -ear) encounter with the "Atom Smasher."

But even in its more conventional segments—some of them documentations of musical performances, some of them panoramic flyovers of natural wonders featuring suitably up-lifting accompanimental scores—the stereophonic sound of *This Is Cinerama* was enormously different to what most listeners of recorded audio (except laboratory-based engineers, and those who might have remembered attending the first run of *Fantasia* a dozen years earlier) had ever before heard.

Like most of the early reviewers, the *New York Times*'s Bosley Crowther commented at length on the film's visual features, which were "so overwhelming in sheer physical sweep and size" that audience members "sat back in spellbound wonder" as though they "were seeing motion pictures for the first time." But he dealt as well with the film's sound. "To heighten the immensity of the impact of the images projected from this screen," he

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25   Tom Gunning notes that, once the film is underway, only in this episode does *This Is Cinerama* refrain from use of Technicolor cinematography. "I imagine [that here] they wanted to direct the audience's attention to the sound," he writes; in this episode in particular, he suggests, "they wanted to drain the colour so you'd be more tuned to the sound." Tom Gunning, "A Slippery Topic: Colour as Metaphor, Intention or Attraction?," in *Disorderly Order: Colours in Silent Film*, ed. Daan Hertogs and Nico de Klerk, (Amsterdam: Stichting Nederlands Filmmuseum, 1996), 47.

noted a few days after the premiere showing, "*Cinerama* is augmented by a system of multiple sound, which means that the accompanying sounds of the picture—the music, natural sounds and dialogue—are fired at the audience from outlets all around the theatre. This concentration of assault upon the eardrums, added to the saturation of the eye, inevitably produces sensations that are rousing, intoxicating—and unique." Crowther wondered, as would many other reviewers, about the extent to which such effects could be successfully incorporated into a filmic narrative. But he granted that *This Is Cinerama* is "frankly and exclusively 'sensational,' in the literal sense of that word." Everything about this film, he wrote, "is clearly designed to smack the nerves."[26]

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The palpable sensations offered by *This Is Cinerama* did not go unnoticed by an American film industry that throughout the prosperous and technology-focused 1950s struggled desperately to compete with television. Within just a year of *Cinerama*'s premiere audiences around the nation were treated to more than thirty films that, for better or worse, featured stereophonic soundtracks. Some of these, to be sure, were low-budget "B pictures" whose makers hoped to capitalize quickly not just on the novelty of stereophonic sound but also on the novelty of stereoscopic visual effects that by this time went by the moniker "3-D"[27]; others of them "simply" featured stereophonic sound in combination with one form or another of *Cinerama*-inspired wide-screen imagery.[28] By the end of the decade films of the former sort

26   Bosley Crowther, "Looking at Cinerama: An Awed and Quizzical Inspection of a New Film Projection System," *New York Times*, 5 October 1952, X1.

27   The first film to use so-called "3-D," or "three-dimensional," imagery was *House of Wax* (1953), a horror film from Warner Bros. that also featured a soundtrack in four-track stereo; other films from 1953 that featured both 3-D imagery and one form or another of stereophonic sound were Warner Bros.' *The Charge at Feather River*, Universal's *It Came from Outer Space* and *Wings of the Hawk*; Twentieth Century-Fox's *Inferno*; RKO's *Second Chance* and *Devil's Canyon*; Allied Artists' *The Maze*; Scott-Brown Productions' *The Stranger Wore a Gun*; Pine-Thomas Productions' *Those Redheads from Seattl*e; Sam Katzman Productions' *Fort Ti;* and Parkland Pictures' *I, the Jury.*

28   The early (i.e., 1953–54) round of wide-screen stereophonic films included Universal's *Thunder Bay* (1953); Columbia's *The 5,000 Fingers of Dr. T.* (1953); Paramount's *Shane* (1953) and *The War of the Worlds* (1953); Twentieth Century-Fox's *The Robe* (1953) and *Demetrius and the Gladiators* (1954); MGM's *Julius Caesar* (1953), *Mogambo* (1953), and *Brigadoon* (1954); Horizon Pictures' *Melba* (1953); and Transcona Enterprises' *A Star Is Born* (1954).

had proved to be just the flash-in-the-pan efforts that they only ever were, but films of the latter sort—with large budgets and subject matter that arguably put them on the high end of the culture scale—triggered a wave of "blockbusters"[29] that held their own at the box office in large part because the public regarded their showings as "special events well worth the increased admission price that first-run exhibitors charged to see [them] on a big screen and to hear them in stereo sound."[30]

I remember very well how exciting it was to go, as an impressionable kid in the company of just my older brother and a cousin, to the "prestige" cinemas in downtown Milwaukee and see some of these films. And I remember at least something of hearing them. The angelic voices resonating from the rear speakers during the nativity scene near the start of *Ben-Hur*, and the several seconds of eerie wraparound wind noise that later marks the return home of the title character's leprous mother and sister, are sonic niceties of which I was reminded only upon revisiting the film via my Dolby 5.1 system, but this same recent revisitation triggered genuine feelings of *déjà entendu*, especially during the sea battle scene during which the percussion accents of Miklós Rózsa's score mix three-dimensionally with the crashes and bangs of weaponry, and during the Judean chariot race that for almost nine minutes features nothing but rumbles and roars.[31] When I popped a newly bought copy of *Journey to the Center of the Earth* into the DVD player, the triggered sense was of an almost haptic sort;[32] how could anyone who

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29   Employing not just stereophonic soundtracks but such new wide-screen formats as CinemaScope, Super Panavision, Todd-AO, and VistaVision, the "blockbusters" of the period included Cecil B. DeMille production company's *The Ten Commandments* (1956); Twentieth Century-Fox's *Carousel* (1956) and *Journey to the Center of the Earth* (1959); Michael Todd company's *Around the World in 80 Days* (1956); Rodgers & Hammerstein Productions' *Oklahoma!* (1955) and *South Pacific* (1958); MGM's *Ben-Hur* (1959); Centurion Films' *The Big Fisherman* (1959); Bryna Productions' *Spartacus* (1960); Samuel Bronston Productions' *El Cid* (1961); and the Mirisch Corporation's *West Side Story* (1961).

30   John Belton, "Glorious Technicolor, Breathtaking CinemaScope, and Stereophonic Sound," in *Hollywood in the Age of Television*, ed. Tino Balio (Boston: Unwin Hyman, 1990), 189.

31   Released in November 1959, William Wyler's *Ben-Hur* featured six-channel stereophonic sound.

32   The term "haptic" (from the Greek ἁπτικός, *haptikós*, meaning "tactile") is relatively new to the vocabulary of film studies. It appears nowhere in all the five editions (2000–2018) of Susan Hayward's *Cinema Studies: The Key Concepts* (London: Routledge), but it is indeed listed, under "Haptic Visuality (Embodied Spectatorship)", in the 2012 *A Dictionary of Film Studies*, ed. Annette Kuhn and Guy Westwell (Oxford: Oxford University Press). As defined in the *Dictionary*, the word is meant not literally but only metaphorically; "haptic

once upon a time attended a showing of this film ever forget, I asked myself, how it *felt*—not emotionally but physically—when the professor chips off a rock sample and unwittingly lets loose a near-fatal flood, or when the members of the expedition make their way along a ledge in an underground canyon and are almost lifted off their feet by a powerful updraft?[33]

In truth, the actual memories of these films that I have carried over the past sixty years have been vague, and they have had much less to do with the films' sonic content than with their visual spectacles and their story lines. On the other hand, a sonic memory from back then that is not at all vague—one that remains so clear in my mind that I sometimes wonder if it has turned into a personal "myth" that grows in grandeur with each recollection—has to do with my experience of listening for the first time to stereo at home.

<p align="center">****</p>

This must have happened sometime in the second half of 1960. I suggest this approximate date because I know that it was only in July of that year that *This Is Cinerama* at long last arrived in my hometown,[34] and I am pretty sure that it was my father's exposure to that film (in the company, I think,

visuality," write the entry's authors, involves visual imagery whose "close engagement with surface detail and texture" gives viewers "*a sense* of physical touching or [of] being touched" (s.v.; emphasis added). For extended discussions of haptic film imagery in general, see, for example, Laura U. Marks, *The Skin of the Film: Intercultural Cinema, Embodiment, and the Senses* (Durham, NC: Duke University Press, 2000) and Jennifer M. Barker, *The Tactile Eye: Touch and the Cinematic Experience* (Berkeley: University of California Press, 2009). For a discussion of arguably haptic qualities in Alfonso Cuarón's 2013 film *Gravity,* see Walker, "Sonic Space and Echoes of the Flesh".

33   Henry Levin's *Journey to the Center of the Earth*, released in December 1959, featured a 4-track stereo soundtrack.

34   By the end of the decade, many film historians suggest, the novelty of *Cinerama* had worn thin, yet "road-show" installations involving *Cinerama*'s special audiovisual setup continued for years to come throughout the United States and in Europe. Various of the widescreen stereo films mentioned in notes 28 and 29 had already by this time been exhibited at such "prestige" Milwaukee venues as the Riverside and the Strand, but it was only on 28 July 1960 that *This Is Cinerama* itself debuted at the city's Palace Cinema. For details on the showings at the Palace not just of *This Is Cinerama* but of all its sequels, see Michael Coate, "Remembering Cinerama (Part 33: Milwaukee)," Cinema Treasures, blog, June 18, 2009, http://cinematreasures.org/blog/2009/6/18/remembering-cinerama-part-33-milwaukee. For extended commentary on the short-lived novelty of not just *Cinerama*-esque sound but also of "3-D" imagery, see Catherine Clepper, "The Rigged House: Gimmickry, Exhibition, and Embodied Spectatorship in Mid-Century American Movie-Going" (PhD diss., Northwestern University, 2016).

of me and several siblings) that inspired him to surprise the family by one day bringing home a relatively huge Magnavox console and remote speaker.[35] I also suggest this approximate date because I know for a fact (having checked the catalogues) that at least a few of the LPs included in the stereo system's purchase package had only recently been issued. To my twelve-year-old ears the music contained on these LPs seemed all fine and good; indeed, I thought that the recording of Tchaikovsky's *1812 Overture*, with all the cannons and bells, was pretty "cool."[36] But what really blew me away, much more than the windy scenes in *Ben-Hur* and *Journey to the Center of the Earth* could ever do, was what I heard on the demonstration disc.

There were no nerve-smacks here, just an array of sounds largely of a sort with which I was already quite familiar. Yet these sounds proved to be fascinating—and memorably so—to a degree I still find hard to fathom. By this time in my young life I had been often to the zoo, and to parades; the field where I and my friends regularly played was bordered by a railroad track; in our basement we had, and almost nightly used, a ping-pong table. I knew well the sounds of barking sea lions and marching bands and passing trains and table tennis. But never—until I heard them stereophonically rendered and coming from just a pair of loudspeakers set up in our living room—had I given these sounds more than a passing thought.[37]

35   For commentary on how throughout the 1950s the idea of at-home stereo was marketed to a decidedly male demographic that possibly included my father, see Keir Keightley, "'Turn It Down!' She Shrieked: Gender, Domestic Space, and High-Fidelity, 1948–59," *Popular Music* 15, no. 2 (1996): 149–77.

36   Featuring the Minneapolis Symphony Orchestra under the direction of Antal Dorati, along with cannons from the United States Military Academy at West Point and the carillon at New York City's Riverside Church, the Tchaikovsky album (Mercury Living Presence SR90054, 1958) proved to be the decade's best-selling classical LP. For an account of the album's legacy, see John Schauer, "How Hi-Fi Popularized Tchaikovsky's '1812' Overture (with Cannons)," *Ravinia Backstage Blog*, 11 July 2017; available at https://backstage.ravinia.org/posts/2017/7/11/how-hi-fi-popularized-tchaikovskys-1812-overture-with-cannon.html.

37   The demonstration disc that in 1960 my father brought home was Audio Fidelity's 1959 *Demonstration & Sound Effects* (AFSD 5890). Numerous other record labels, and equipment manufacturers, at around the same time released demonstration discs of their own, many of which are readily available on YouTube; see, for example, RCA's *Sounds in Space: A Stereophonic Sound Demonstration Record* (SP-33-13, 1958), London's *A Journey into Stereo Sound* (PS 100, 1958), Bel Canto's *Stereophonic Demonstration Record* (SR 1000, 1958), Packard Bell's *Space Age Stereo* (PB 1, 1962), and Admiral's *Stereophonic Demonstration Record* (PRS-218, 1964). Along with musical examples, these demonstration discs included a wide array of "sound effects"; to the best of my knowledge, however, only the Audio Fidelity disc featured the back-and-forth ping-pong clicks that in my memory remain so permanently fixed.

I did not wonder then but I certainly wonder now: Why is it that mechanical reproductions of certain sounds—at least for me, but I suspect for others as well—tend to be so much more compelling than their real-life equivalents? Why might a person be inclined to pay more attention to stereophonic recordings of certain sounds than to the actual sounds that such recordings represent? Why might someone be more "rapt" in his or her at-home listening to two-dimensional replications of sounds than when he or she, outside the home, encounters the very same sounds and is *three*-dimensionally "wrapped" in them?

Differences

At the risk of seeming tautological to the extreme, I will state here some of the obvious differences between "surround" sounds in real-life situations and their at-home equivalents. Of these, the most obvious, surely, has to do with the simple fact that sounds of the latter type are heard *at home*.

For me or anyone else to experience in real life some of the recorded sounds I have just described might well be thrilling. But for us to be face-to-face with the real-life sounds of, say, an underground deluge or a sandstorm or a steel mill we would have to actually *be* in a flooding cavern, or a wind-swept desert, or a steel mill. In such circumstances we might well have on our minds numerous things other than how "interesting" our environment sounds (we might be concerned, for example, with the dangers of being drowned, or with how it feels, physically, to have the skin on our faces scratched by particles of blowing sand or to be fairly cooked by the heat of blast furnaces). Even if the real-life situations were relatively safe, we would still be thinking, I imagine, about such things as how we happened to be there and how much time we might be spending there. These thoughts would of course be part and parcel of our experience, and they would distract considerably from the act of "pure" listening. In marked contrast, hearing not long stretches of real-life sounds but just recorded bits of them in the comfort of our homes allows us to attend to the sounds with our ears alone. Upon first encountering such recorded bits we are of course likely to be put in mind of the real-life contexts in which such sounds might actually occur. But if the sounds themselves catch our fancy we have the option of forgetting altogether about their real-life contexts. If we so choose, we can fiddle with our devices' "rewind" and "replay" buttons and just listen, again and again.

Another obvious difference between real-life "surround sound" and its mechanical reproduction has to do with the fact that the latter, regardless of its sophistication, and regardless of its sonic content, is in essence a fiction.

In Disney's 1940 Fantasound setup, the relatively low-volume sounds that came from the rear speakers were indeed the actual sounds of the orchestra whose recorded performances issued primarily from the auditorium's left- and right-hand speakers; in the 1952 *This Is Cinerama*, the "surround" sounds of the roller coaster, the motorboat, and the processing choir were indeed documentary recordings of the real thing, and even in the many stereo demonstration discs from later in the 1950s most of the sounds that purportedly represented sonic "realism so true to life you have to hear it to believe it" were, in fact, true to life.[38] Stereophonic sounds in narrative cinema, on the other hand, have almost always been artificial. The quiet chirps of crickets that lend such a feeling of intimacy to the lovers' late-night snuggle in Malick's *Days of Heaven*, like the barely audible snaps of dry twigs in the autumnal mountain scene near the start of Cimino's *The Deer Hunter* and the faint buzzes of swamp insects heard so clearly near the end of Coppola's *Apocalypse Now*, are no more "real" than are the roars of the dinosaurs in Merian C. Cooper's decidedly monophonic 1933 *King Kong* or Steven Spielberg's spectacularly stereophonic 1993 *Jurassic Park*. Yet in all these films the sounds, stereophonic or not, have by means of careful editing been made to *seem* real, and the audience accepts them as such. In a section of his *Audio-Vision* book headed "Sound Truth and Sound Verisimilitude," Michel Chion notes that audiences have long assessed "the truth" of cinematic sound not by how the sound relates to what they know from their "hypothetical lived experience" but by how it conforms to the "codes established by cinema itself, as well as by television and narrative-representational arts in general";[39] exploring this same theme, film historian John Belton argues that one of the problems encountered by makers of the late-1950s "blockbusters" entailed an over-reliance on stereophonic sound as an element of the spectacles they sought to sell, the result being that "stereo sound became associated for audiences not so much with greater realism as with greater artifice."[40]

38   The quoted words are spoken by announcer Howard Viken on the Admiral disc mentioned in the previous footnote.

39   Chion, *Audio-Vision*, 107.

40   John Belton, "1950s Magnetic Sound: The Frozen Revolution," in *Sound Theory, Sound Practice*, ed. Rick Altman (New York: Routledge, 1992), 158. In Chapter 9 ("Spectator and Screen") of his *Widescreen Cinema* (Cambridge, MA: Harvard University Press, 1992),

Still another obvious but often overlooked difference between real-life "surround sounds" and their recorded counterparts has to do with how these sounds are organized; whereas the former simply "come" together, paratactically or accidentally, the latter are almost always "put" together, deliberately, and thus it remains—whether their artifice is audible or not—that they are *artifacts*.

When I step out onto my third-floor balcony and pay attention to the sounds of my urban environment, I have expectations of what I might hear but no control over what I actually do hear, and it is the unpredictable combination of the expected norm with the occasional surprise that makes this real-life three-dimensional sonic experience at least potentially interesting. Were I to make a narrative film that included a nocturnal scene in which someone for a moment or two stood on a balcony and did nothing but listen, my Dolby 5.1 soundtrack might well feature noises of the sort that I, in similar circumstances, regularly encounter: the squawks of nightbirds, for example, or the distant thrum of a passing helicopter, or the constant but usually quiet din of vehicles moving this way and that. But this soundtrack most probably would be something constructed, something designed—with care and craft—so that, for example, the squawks are heard only in those brief instants when the noise of the traffic has ebbed, or that the sound of the helicopter is heard only when the film's tacit narrative suggests that the scene's protagonist is thinking about something, say, police- or hospital-related. In real-life situations, the sounds of birds and helicopters and traffic would by definition be juxtaposed or superimposed; in re-creations of comparable situations, mixes of these very same sounds—perhaps merely for the sake of making them seem credible, but also perhaps for the sake of serving some narrative purpose—would surely be *com*posed.[41]

Belton deals at length with the issue of the "perception of stereo as artifice" (207) and its effect on filmmaking in the 1960s.

41   A variation on this generalization applies even to the recorded sounds of documentary films and of television newscasts, the episodes of which typically are presented for public consumption only after several "takes" have been made, and often the decisions as to which "take" to use has very much to do with the recorded sounds' communicability. For commentary on sounds in news footage and documentaries, see, for example, Richard J. Schaefer, "Editing Strategies in Television News Documentaries," *Journal of Communication* 47, no. 4 (1997): 69–88; B. William Silcock, "Every Edit Tells a Story—Sound and the Visual Frame: A Comparative Analysis of Videotape Editor Routines in Global Newsrooms," *Visual Communication Quarterly* 14, no. 1 (2007): 3–15; and Karen Collins, "Calls of the Wild? 'Fake' Sound Effects and Cinematic Realism in BBC David Attenborough Nature Documentaries," *The Soundtrack* 10, no. 1 (2017): 59–77.

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This essay has not dealt with "surround sound" compositions *per se*, that is, works of music intended by their creators to be heard in situations where the sounds come not from a conventional stage located in front of the listeners but, rather, from places more or less all around the listeners.

The long history and rich repertoire of three-dimensional music in Western culture ranges from the aptly named antiphons of medieval chant to the sixteenth-century *cori spezzati* pieces designed for the echoey interior of St. Mark's Cathedral in Venice, from the grandiose nineteenth-century operas and symphonic works that featured offstage brass ensembles to the insouciant *musique d'ameublement* with which Erik Satie during World War I decorated Parisian theater lobbies, from the *Poème électronique* of Edgard Varèse that coursed through more than 350 loudspeakers inside the Philips Pavilion at the 1958 Brussels World's Fair to the handful of recordings by Pink Floyd and other art-rock groups that tried to exploit the short-lived fad for "quadraphonic sound" in the early 1970s, from the 1959 String Quartet No. 2 of Elliott Carter that required its players to sit on the same platform but as far apart as possible to the 1995 *Helikopter-Streichquartett* of Karlheinz Stockhausen that had the four players perform from positions within airships that flew a choreographed pattern high above the listening space.

Much of this music is available on commercial recordings, but mostly in two-channel stereo formats.[42] It would be puritanical priggery to declare that one misses the point entirely when employing "mere" two-channel stereo to listen to music along the lines of Thomas Tallis's ca. 1570 *Spem in alium* (written for eight five-voice choirs and supposedly first performed not just from the cardinal points on the floor but also from the high-up balconies in the dining hall of the Earl of Arundel's Nonsuch Palace in Surrey) or John Cage's 1951–53 *Williams Mix* (created by aleatoric methods

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42   There do exist commercial recordings of music that use the so-called SACD (Super Audio CD) format, and in 2005 the National Academy of Recording Arts and Science started to include in its annual Grammy Awards a prize for "Best Surround Sound Album." But these recordings (available on such labels as Audite, Chandos, Coro, Mode, and Telarc) are still few in number, likely because, as Justin Colletti notes, "consumers are slow to adopt systems that require a [special] setup and are hampered by competing delivery standards." "Music in 5.1 Dimensions: How the Best Surround Mixers Approach the Soundstage," *SonicScoop*, January 21, 2014, https://sonicscoop.com/2014/01/21/music-in-5-1-dimensions-how-the-best-surround-mixers-approach-the-soundstage/.

and consisting of snippets of recorded sounds contained on eight separate reels of monophonic tape). It is fair to say, however, that to hear such music emerge from just a pair of loudspeakers is to miss at least *something* of what the composers had in mind; such listening is not without value, but it is arguably akin to viewing the paintings of Rembrandt and Vermeer in black-and-white textbook reproductions, or taking in architectural wonders by means of photographs alone.

The debate about the relative merits of hearing music performed "live" and hearing it via one form or another of stereophonic recording, in any case, is one that can be saved for another day. In this essay I have simply explored the aesthetic/experiential differences between listening to real-life "surround" sounds and listening to at-home replications of more or less those same sounds, and I have regularly raised the question as to why over the years at least some listeners—certainly including myself—seem to have been more intrigued by the latter than by the former. Again at the risk of seeming tautological, let me conclude by reminding readers that most examples of real-life "surround sound"—ranging from the perhaps awe-inspiring noise of a thunderstorm to the quotidian noise of traffic—are, by definition, ordinary. In contrast, "surround sound" recordings, including recordings of traffic and thunderstorms, are quite *extra*ordinary, at least in comparison with what we normally hear within the confines of our homes. Whereas real-life "surround sound" *exists* in space, crafted equivalents are examples of what the announcer for one of the early stereo demonstration discs aptly called "sound *sculptured* in space."[43] No matter how expert has been the sculpting, we cannot help but be aware, by virtue of the physical circumstances of the listening experience, that at-home "surround sound" results from human agency. Even the most natural-sounding examples, we *know*, are man-made, and perhaps that is why—almost rapaciously—they grab our attention.

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43 The words are spoken by the British actor Geoffrey Sumner near the end of the London label's *A Journey into Stereo Sound* disc that is mentioned in note 37.

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Abstract

This essay is prompted by "surround sound," the sonic results of which have been evident in cinemas since the late 1970s and the encoding for which, in the form of Dolby 5.1 on the soundtracks of DVDs, since the turn of the century has been fairly ubiquitous. By way of background, the essay deals in turn with the physical nature of three-dimensional listening and with the history of stereophonic sound as manifest both in the cinema and on LP recordings. More to the point, the essay deals with the aesthetic differences (not just perceptual but also affective) between listening to three-dimensional sounds in real life situations and listening to re-creations of those sounds, via a Dolby system or otherwise, in the privacy and comfort of one's home. Playing on the homophonic adjectives in its title, the essay reflects on why sometimes we give more rapt attention to artificial versions of "surround sound" than to the genuine stereophonic sound in which we are literally wrapped almost on a daily basis.

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