

Elizabeth Hoffman

Department of Music
New York University
24 Waverly Place, Room 268
New York, New York 10003, USA
elizabeth.hoffman@nyu.edu

“I”-Tunes: Multiple Subjectivities and Narrative Method in Computer Music

Abstract: Representational aspects of a computer music composition may forge a perspectival conduit into the music, partly through conceptual boundary structures described here as “frames.” The perspectival conduit includes the illusion of subjectivities inside the music and is called here the work’s “point of view.” These internal subjectivities shape a listener’s sense of self, including role, location, and identity. Where and how does the given sound world let the listener in, conceptually, to interact with the work’s point of view? This essay considers musical discourse that draws on literary theories of narrative, but it also examines techniques that derive directly from computer music’s distinctive features and capabilities.

Introduction

This essay explores how certain features in a defined subset of computer music instantiate an elaborate web of listener, composer, and sound world in a manner reminiscent of a narrative phenomenon. I refer here to an interconnectivity free of temporal or ontological logic, narrative-like in its evocation of musical subjectivities which, in turn, alter a listener’s sense of self in relation to the sonic world. My focus is on fixed-media computer music that either manifests some literality by using sampled sound or else suggests a realistic context some other way. But my interest in any representational aspect concerns only how it contributes to an abstract viewpoint that is our conduit into the music. Because the term “narrative” in vernacular usage so often denotes teleology or plot, I emphasize that this article’s topic is quite different, referring only to the suggested presence of a teller or a shower of a “story.” The narrative viewpoints situate the teller of the story, and by implication, the receiver.

Although this article is concerned with strategies of reception and interpretation for selected computer music, there is nothing theoretical to preclude application to analog electronic music. The music I cordon off is stylistically diverse, and exists as a Venn-diagram-like “center subset” of “electroacoustic music,” “computer music,” “acousmatic,” and “soundscape” music, as these labels are often used to imply stylistic and methodological differences. Music with narrative implications, by virtue of an

open-ended set of techniques, exists in each of these categories in their fixed-media forms. This article uses the term “electroacoustic” at times, to refer to phenomena which may, in theory, be digital or analog.

In sum, narrative form in computer music deserves considered attention, both for its role in the medium’s discourses and as a contributor of analytic insights into particular pieces. By invoking narrative analysis in listening to much computer music of the sort delimited here, one can facilitate the emergence of meanings not otherwise obvious.

The Phenomenon of Artistic Narrative

Narrative permeates our thinking, talking, documenting, and theorizing, even in nonfictional contexts. In linguistic forms, it allows us to objectify our phenomenal impressions and to reflect upon them and ourselves in the form of memories and histories (Arendt 1958; Kristeva 2001). Consider, then, our artistic endeavors against this backdrop. Artistic narrative is inherently more structurally intricate; its source of subjectivity remains cloaked in an infinite regress, pointing inward (as if self-activating) and outward (acknowledging the composer as creator) at the same time. “Life histories generate meaning, but this meaning is only accessible to the tellers and listeners of the stories, not to their protagonists. This is because human beings live fragmented lives whose meaning always evades them; they thus need others to tell their stories” (Tamboukou 2010, p. 117). Although the relative value of objective versus

Computer Music Journal, 36:4, pp. 40–58, Winter 2012
© 2013 Massachusetts Institute of Technology.

self-reflective storytelling can be argued either way, perhaps the following is a more facile point of agreement: “A person is a being of semiosis . . . in extensive interaction with other acting bodies and the products of semiosis—speech, texts, artworks, and meaningful action generally” (Kerby 1991, p. 101).

Artistic narrative also connects us immediately to an imaginary world in a de facto privileged position. As mentioned, as we listen or read, we usually know far more about the relevant situation than does any internal character. We hear things (through the narrator) that the internal characters cannot. When the narrator is inside the story (i.e., “I heard Sally say”), the implication may be that her or his supreme knowledge comes from hindsight. When the narrator is outside the story (“Sally said”), the implication may be of omniscience that transcends rules of sensory perception.

Comparative Issues in Literary Theory Versus Musical Theory

Narrative theory has, over decades, been tried on by a range of fields including literature, history, drama, film, philosophy, psychology, anthropology, the visual arts, and music. Of all of these media or disciplines, literature still stands out as dependent on narrative practice in a uniquely conscious and cultivated way. It is therefore useful to ask whether musical narrative tends to emulate literary models. An alternative possibility, a view held by Byron Almén, is that narrative is an archetypal practice underlying many forms of art and culture (Almén 2008, p. 12). My own line of argument does not depend on resolving this line of causality. I find computer music analogues of literary concepts; I find computer music analogues of acoustic music narrative discourse; and I also find idiosyncratic computer music narrative discourse. Though there are bridges between narrative and subjectivity studies (e.g., Cumming 1997; Kramer 2001; McClary 2004) or event schema perceptual studies (e.g., Kendall 2010; Brunson 2012), the central concerns of narratology are distinct.

Contributions to the Narratology of Acoustic Music

Computer music narratology is valuable in its own right, and it points toward a useful supplementation of musical narratology at large. The latter’s examples have been mostly limited to tonal music (e.g., McClary 1986; Abbate 1996; Cumming 1997) but occasionally include early or high modernism (e.g., Whittall 2000). The result is that many sonic discourse techniques based on perceived timbre, spectral weighting, and spatialization, for example, have been preemptively excluded from acoustic music study. (Notable exceptions are works of Robert Cogan [e.g., Cogan 1984] and Roland Barthes [e.g., Barthes 1977] which have utilized spectral analysis and addressed “language as sonic materiality,” respectively.) Whether theorists of musical narrative would or could proceed to analyze electroacoustic music with the same modalities used thus far for acoustic music narratology, is, therefore—for the moment—mostly speculation. For now, we can at least see that investigating narrative in computer music should secondarily broaden the musical sample base for musical narratology as a whole.

The Role of Realism in Computer Music Narration

Computer music provides virtuosic techniques for infinite variations of sonic pseudo-realism. Signification that takes part in the medium’s narrative is therefore sophisticated, merging artistic issues with conceptual ones, and inviting a wide range of interpretive responses. The potentially stark literality of computer music provides artistic openings that do not exist in acoustic music, as evidenced by the profusion of terms crafted by composers themselves for their hybrid worlds. These include *sound surrogacy*, *simulacra*, *sound metaphors* or *symbols*, *transfigurations*, *morphological matching*, *source types*, *surReality*, and *other-worldly*, all described by Young (1996, pp. 73–93), as well as *environmental “signatures”* and *associated imagery* (Truax 1996, pp. 49–65), to name a handful. Valuable explanatory models such as those provided

by Gary Kendall (2010, p. 63) and Suk-Jun Kim (2008, p. 123) chart modes of inter-world conceptual fusion and categorization, and delineate their complexities.

But, as richly nuanced as these hybrid sounds are, their ability to persuade us to move from our world to theirs is exponentially bolstered when they are revealed to us by a subjectivity. We are then pulled directly into the connective tissue between the multiple realities. We then hear not only “signification” amidst “ambiguity” (Rudy 2007, p. 5), but, as mentioned, we encounter a viewpoint. It arises as we interpret the real-world allusions as secondhand information; they seem to be “selected” for us, through the eyes and the ears of someone else. In this way, narrative design delimits responses; we simply cannot opt out of being assimilated into its mechanisms. What happens as we listen is typically one of two things: We suspend disbelief and pretend that the simulated sound world is reaching us directly, or we notice its strangeness against our normal canvas of directly perceived reality. (Film scholar Richard Allen calls art which fosters the first response “reproductive illusion,” and art which fosters the second, “projective illusion” [Allen 1993, p. 22].) Regardless of the nature of the illusion, we may wonder about the reliability of our source. Is our guide’s viewpoint anything like our own? Is our narrator—the consciousness that selects “reality bites” for us—communicating with us, or mostly ignoring us as bystanders? Are we invited to the other side, i.e., into the illusion itself, or do we find ourselves listening through a keyhole? The “situatedness” of the listener is inherently a relational position, though the listener is coaxed into it without consultation. So much has been written about reader theory in music, but very little about the listener’s passive but unavoidable engagement with the conceptual narrative architecture of the composition.

Semiotic Connections to the Listener’s World

In both acoustic and computer music realms the narrator’s self-awareness is integral to the concept

of a “subjectivity.” To understand this in context, consider two examples, one acoustic, and one computer music, both with discrete semiotic suggestions. At the end of the second movement of Beethoven’s *Sixth Symphony*, there is a moment that can only be called the “bird trio.” Beethoven labels three bird species in the score, but gives no indication of a narrator (other than possibly implicating himself) as inscriber of the story. Even if we feel that the birds are communicating (Knapp 2000, pp. 292–296), we would not typically read this scenario as “narrative” because there is no indication that the birds reach beyond the bounds of the symphony. They also do not seem aware of having a narrative role. This is in stark contrast to the bird that appears in Suk-Jun Kim’s *What the Bird Saw* (2004), an electroacoustic composition that portrays a bird who is indeed talking to us, or sharing its reflections with us through vaguely speech-like sound patterns. In addition, our “privileged” viewpoint, which in this case seems to be a physical location, appears to be roving, and nearly on the back of the bird itself. The same (or another) narrator seems also to be watching omnisciently from a distance, and so we sense this perspective, too.

Regardless of the need for coordinated conceptual and discursive techniques, semiotic discreteness in computer music has opened up striking narrative opportunities. Computer music has fomented the development of devices that are barely even attempted in acoustic music. These include the juxtaposition of sampled and synthetic material; the imitation of the real to create “simulacra” (Risset 1996, p. 29); and the very sampling process itself, which is imprinted with signification by virtue of editing and recording processes. In this technically sophisticated way, referential sound in computer music can do what Beethoven’s birds do and more. Sonic allusions in electroacoustic media depict not only events, but their locational specificities through reverberation. Even a listener lacking familiarity with a conjured space will encounter its virtual characteristics as a spatial specificity. All of these features are significant, because semiotic suggestiveness (e.g., Burnham 1995) does not on its own evoke a storyteller.

Disruptions to a Texture, and Puncturing of a Consistent Conceptual Boundary

In addition to having semiotic potential, referential sound in electroacoustic music naturally stands out formally. It can suggest—through textural isolation or discursive interjection—that some agent put it there, and maybe even that the sound itself is the agent. This occurs because we sense an unexpected and inexplicable break in the seam of the existing rhetoric. (This notion will be discussed in detail in the following section on the “frame.”) This sense of agency is implied in Knapp’s analysis of why the *Pastorale*’s birds may be heard as if communicating with us (Knapp 2000, p. 291). Beethoven’s birds protrude via texture (the rest of the score suddenly evaporates), and via rhythm (each bird voices a rhythmic kernel that is out of left field, if heard as a purely musical motif). Knapp’s argument connects with Carolyn Abbate’s thesis in *Unsung Voices*, where she hears “voices” (including non-vocal ones) as articulated disruptions in the discourse (Abbate 1996, p. xii). Implied musical agency has immediate narrative suggesting power.

Even more dramatically maybe, implied musical “consciousness” (of self or other), reveals our location, relationally. If the music’s characters know what *we* know, they share our locus. If not, then we are observing them from outside their world. Abbate’s sense of a pervasive “deafness” among opera singers—deaf to the fact that they are singing—is a case in point. The singers take part in artifice (the singing) that unfolds within a pseudo-realistic frame (the opera’s drama). They cannot detect the artifice (Abbate 1996, p. 119 ff.), though it is obvious to us. Another acoustic example with different sorts of realities in play is Haydn’s *Abschied-Symphonie* (No. 45) in which orchestral players systematically leave the stage during the final movement. The musicians are clearly meant to seem aware of their political act (a musical move that was Haydn’s way of urging Esterhazy to send the players home). Haydn’s directive causes a non-artistic action to become part of the artwork. As a final example, consider Ives’s *The Unanswered Question*, a somewhat mystical work in which he directs the “The Silences of the Druids” (the

strings) to sound from a distant location, symbolic of their distant time. Ives’s realistic dramatization is thus nested within an abstract musical situation. Although listeners know the strings are offstage, the composition itself seems to suspend its disbelief, accepting Ives’s pretense that part of the “music” is in an otherworldly time and place. In all of these examples, non-coincident reference frames, of time, place, and/or ontology, are interlaced; they are broken open and newly interlocked, like puzzles.

An Essential Narrative Element: The Frame

It is useful to consider the concept of framing more systematically in order to see its impact in computer music repertoire. Toward this end, let us first trace framing mechanisms briefly in a literary context that demonstrates a high level of recursive self-reference. Vladimir Nabokov’s *Pale Fire* (Nabokov 1962/2000) is a novel that contains *Pale Fire*, the poem. (These are already two non-coordinated frames. Although we know the poem is by Nabokov because it is in his book, the novel’s narrator tells us that the poet is a fictional protagonist.) Footnotes to the poem form the book’s main text, and simultaneously these footnotes are the poem’s interpretation. The timeline is thus awry: The poem is generating the novel, but the novel unfolds as if the poem is not yet completed. Other interlocking frames are these: *Pale Fire* the poem exists both in the novel and outside of it. The commentary on the poem lacks awareness that the poem is published in Nabokov’s book. In other words, like Abbate’s opera singers, Nabokov’s characters, who are obsessed with the poem’s future, do not know that they are in a book that contains the manuscript. Can inner and outer frames be similarly convoluted in music, particularly in computer music? Yes, though, as in literature, it takes tremendous conceptual skill; and in music, the clarity is at least partly dependent on nonverbal discourse.

Erving Goffman’s notion of “framing” is particularly adept at revealing computer music techniques. For Goffman, a frame is an organizational boundary that we acknowledge through cognition. We do not stipulate it or invent it; we notice the boundary

from the way it functions. In looking for the frame called “reality,” for example, he says, “this question speaks to a small, manageable problem having to do with the camera and not what it is the camera takes pictures of” (Goffman 1974, p. 2). Hence, reality is a frame; and the camera’s representation of reality is another frame. Let us replace Goffman’s “camera” with “audio recorder” and then replace his “pictures” with “recordings.” (Our reworking of Goffman’s sentence is now this: whatever sense of reality is generated has “to do with the audio recorder and not what it is the audio recorder takes recordings of.”) This maxim is a helpful guide in looking for “naturally occurring” frame types in computer music composition. Goffman’s remarks are reminders that our sense of “reality” can be numerous things. “Lived-in reality” and the “audio recorder’s reality” are just two. Goffman’s other important point is that a frame is generated by the nature of the recording device and (implicitly) by the person operating it. “[Goffman] calls attention to the fragility of frames in use[,] and their vulnerability to tampering” (Gamson et al. 1992, p. 384).

Consider a tentative model of four propositions, for frames that are operative in environmentally suggestive or environmentally borrowing soundscape composition. This outline is not mutually exclusive with other frame taxonomies that might be discerned. The fourth proposition is the most like the Nabokov literary example. It describes an infinitely nuanced set of interactions between any of the three previous premises.

Proposition 1: There is only one universe, ours. Any fictional one is a substitute, extension, or hidden aspect (including a memory) of the “real.”

Proposition 2: There are two closed universes, the original and a simulacrum.

Proposition 3: There are two closed universes, the original and a fabrication.

Proposition 4: There are two or more distinct universes that are mutually permeable. Characters from any of these universes may communicate or move across frame boundaries.

It is not difficult to place most soundscape-like pieces in one of these categories.

Proposition 1 is closest, of all four, to realism in that it posits an objectively perceptible world which does not disrupt our communally shared set of expectations. Paul Lansky’s *as it grew dark* (Lansky 1992, composed in 1983) conforms strongly in certain ways to this organizational boundary, but nonetheless it fascinatingly stretches selected aspects of normality (that we overlook). The piece is composed around a particular recounting by Jane Eyre of her recent dreams. The emotional overtones of the text itself are ominous and full of psychoanalytic innuendo. Like a hidden observer, we hear a conversation between Jane and her future husband—though we do not seem to be in the room with them. We are let into the conversation through a true hidden observer narrator, simply a consciousness. Predominantly a text piece, *as it grew dark* unfolds through a stream of heavily processed actual voice narration. The processing techniques convey everything from radio transmission distortion, to changing sentiments of Jane, to non-acoustic dream-like spaces. But the processed sounds miraculously point to an entirely familiar, shared world, in the fundamental sense that we perceive a person like us who is sharing her thoughts.

Lansky’s most “reality-interventionist” technique concerning text here is to segment and discombobulate the order of short phrases in one large segment of the work (heard in Sound Example 1, which contains 5:30–6:40 of the piece). [Editor’s note: Sound examples are available at <http://www.mitpressjournals.org/toc/comj/36/4> and will also appear on the disc accompanying Vol. 37, No. 4 (Winter 2013).] This disordered text becomes a second stream running in the background of the “real” one. As we hear two simultaneous flows in different time frames, of words being said and thought, the resulting temporal hocket adds intriguing commentary on a semantic level. In no way is this hocket presented as a contrivance. Rather, the impression it gives is of a separation between speech and thought, effected through spatialization and supporting processing modifications. In sum, only the sequentially intact spoken text is up close

and truly clear to the listener. (This is the narrative purportedly being told in the real time of the compositional story.) The intermittent and less linear “reverberations” of disordered text fragments are located in a distant and fuzzily non-real space. As a result of Lansky’s intricate editing, we may be reminded of another completely all-too-familiar phenomenon while listening: the tension of simultaneous internal demands to manage both our speaking and thinking activities.

This is the text heard in Example 1:

“On sleeping, I continued in dreams the idea of a dark and gusty night. I continued also the wish to be with you, and experienced a strange, regretful consciousness of some barrier dividing us. During all my first sleep, I was following the windings of an unknown road; total obscurity environed me; rain pelted me; I was burdened with the charge of a little child:”

(Brontë 1847/1965, p. 366).

Proposition 2 describes a world analogous to ours, but having different behavioral qualities and laws. Francis Dhomont’s *Météores* (1989) suggests a simulacrum world in these ways. There are gestures in the piece that the composer calls “luminous phenomena” (Dhomont 1996, p. 31 of the program notes). They move in arc-like paths, seemingly impacted by gravitational or atmospheric forces. The gesture trajectories reach a sound horizon (implied by a recurrent pitch location and spatial endpoint); then they open up as if scattering crystalline fragments. (This can be heard in Sound Example 2, which contains 4:15–5:05 of the piece.) *Météores* is thus simulacrum-like in its use of sound as a substitute for sight, and in its use of gestural shapes that suggest analogous visual shapes. It is not difficult to suspend disbelief and to hear the sound as light. Still, we can distinguish Dhomont’s world from our own—quite unlike the Lansky example. Dhomont’s light patterns, sonified, are in our real world typically silent. The sound recorder seems to follow the phenomena from a huge distance away. Hence the “narration,” if felt to be there, is likely to be perceived as documentary.

In contrast to a simulacrum world, a *fabricated* one (Proposition 3) departs explicitly from our own reality framework. Returning to Suk-Jun Kim’s *What the Bird Saw* (2004), we can trace this piece as a clear example. Though purportedly a dream (Kim 2006, p. 1 of program notes), the music does not portray a “dream of reality” as does the Lansky example. In Kim’s work, the composer becomes a bird, and he experiences flight. (Sound Example 3 contains 0–1:30 of the piece.) Only in a fabricated world can a bird share its experiences with us, and can we join a bird in flight. As we listen, we feel vicariously that we are flying. The remarkable thing about this piece is its ability to create the sensation of a first-person narrative with no explicit speech at all. There is, however, bird-speech; the bird, through spectral processing, sounds all too human. This, too, is a fabrication, suggesting not an analogue of something familiar, as in the simulacrum, but rather a surreal hybrid. It is largely through Kim’s use of sound to create visual imagery relating to huge depth perception and perspective that the listener likely experiences sonic panoramas, as if from the sky.

Approaches to a Narrative Analysis of Computer Music

Both structuralist approaches and self-fulfilling induction approaches have been critiqued widely in literary analysis and other fields (Kramer 1991, p. 142; Eco 1992, p. 827). Striving for some middle ground, let us turn to six analytic terms to use as a consistent but flexible analytic toolkit. These terms will constitute a set of possibilities, but will be untethered to a rigid hierarchical method that would preclude applicability from the ground up. The six terms we will work with are *narrator*, *reflector*, *focalizer*, *text*, *story*, and *fabula*. All of these concepts are defined in Mieke Bal’s *Narratology: Introduction to the Theory of Narrative* (Bal 1997). Bal’s attention in this well-known reference text is mostly to literature, but he does embrace the notion of visual narrative (p. 161 ff.). He is thus thinking beyond semantics at the most fundamental level.

Evidence of a Narrator

When stepping into a fictional computer music world, we may naturally and unconsciously sense evidence of an “I,” a self-awareness, as we identify with some point of view. We may also seek to locate an “I” consciously as we try to form larger hypotheses about the fictional world. Why is it here? Who created it? How are we privy to it? And, are we being shown it, or are we trusting someone else’s recounting of it? Fred Maus alights usefully on the topic of agency as it is bound up with perceived “I”-ness:

To the extent that musical surfaces are understood as discourse, . . . there will presumably be some sense of an agency that performs the actions of selecting, reordering, repeating, and condensing, in a time that is distinct from that of the story. But this agency has a strange impersonality, akin to the silent, invisible intelligence that guides the montage of a film rather than a vividly dramatized speaker like Huck Finn. . . . Musical narrators are the shadows that are cast when a listener plays with the distinction between story and discourse. And [if understood as drama] there may be no sense of a narrator at all”

(Maus 1991, pp. 33–34).

Maus thus cordons off film and music as two related art forms that are far less adept than literature at modeling a narrative presence. But, as compared with film, computer music has some discursive tools that allow it to rebuff this pull toward “strange impersonality,” if we are sympathetic to Maus’s observation that it persists. At least one unique element of computer music seems to qualify, and that is the minimal apparency of the frame itself. In electroacoustic sound, the frame of its postulated reality is truly enigmatic. In fact, if the lights are out, or our eyes are closed, “Is it live or is it Memorex?” may be a meaningful inquiry. Even if we see the loudspeakers, and even if the musical composition does not strive for Proposition 1–like realism, our sensation—as listeners identifying with the directorial intelligence—is unimpeded by a palpable boundary. We may be convinced we are hearing what

the director heard. (In comparison, while watching film, the literal frame, i.e., the screen, is front and center in a way that makes it difficult to imagine being inside a director’s head. The director more likely seems at least one step removed, in front of us.) And so, we can at least make a case for the phenomenon of uniquely transparent “transport” in computer music, of a listener stepping (figuratively) into the ears of the director. If this sensation truly happens, we are no longer observing the director, but instead we become her or him. In this case, paradoxically, any impersonality factor present is possibly even an advantage.

Computer music has other unique discourse methods compared with acoustic music and with film. For example, in computer music, a suggested narrative presence (into whose ears and sensibility we enter) can hear unrelated details simultaneously, near and far, in a 360-degree swath (represented in whatever spatialization format the computer music is utilizing). The depicted paths of perceptual focus need not imply bodily movement; in a fraction of a second, sound events can be homed in on or ignored, causing perspectival shifts even faster than the eye can move.

“Listening paths,” manifesting the attention patterns of a narrator who is tracking aural details of any sort, can thus be highly personalized. Such patterns implicitly model idiosyncratic thought patterns of a distinct personality. By contrast, if a changing visual focus were to track the elements responsible for the same sound events, at a similar pacing, this might require a physicality on the part of the observer that would transcend the believable. My hypothesis here is that our ways of listening to a soundscape-like scene have the capacity for more individual variation than our ways of looking at the correlated visual scene.

There is yet another reason to argue that computer music narration, compared with film, can more easily be perceived as if emanating from a personalized intelligence. Whereas a film’s narrator may seem to be determining segments’ varying distances from the camera and speeds of concatenation, a computer music work’s directorial intelligence can do even more, by distorting reality in ways that we typically find more believable in sound than in

visual analogues. For example, it is often through a warped sonic reality that a listener experiences a distinctly recognizable, and thus personally involved, directorial intelligence. (Perhaps this degree of accommodation is distantly related to the fact that we are accustomed to “hearing through” a wide range of vocal manipulations in an individual’s speaking voice. In contrast, extreme changes in bodily appearance—say, a beard versus no beard—are often surprisingly challenging for visual recognition mechanisms.)

The very opening of Trevor Wishart’s *Tongues of Fire* contains a strong example of this. Wishart creates speech patterns that sound so bizarrely unravelled or redacted and reconstituted (one cannot even tell which) as to be incomprehensible. The piece opens with a 2-second “rapid solo vocal utterance” (Wishart 2000b, p. 23), which is repeated and then allowed to transform itself as if responding to unseen forces. Intriguingly, both the sound of the actual voice and its distortions through “spectral tracing” (Wishart 2000a) transcend what we normally assume a voice can do. Still, we sense not only a human, but a recognizable personality. This occurs because of consistencies of the distortion techniques, given the extension of initially present qualities that strongly suggest their correlating mouth and tongue movements. But more interesting, maybe, is the possibility of hearing the distortion as a “distorted hearing.” An objective description might thus be that of a person trying to speak in tongues (let’s say); whereas a subjective description might be that of a narrator listening beyond the semantics, either because of disinterest in the words or because the other communicative aspects of the speech contour have grabbed her or his attention. Wishart’s highly distorted allusion to reality might thus be read as a figurative portrayal of what “Mr. X’s” voice (i.e., its inflection, its pacing, its emphases, its window into the personality behind it) sounds like to the director.

Evidence of a Reflector

Even readers unaware of narrative theory will likely be versed in “first-person” versus “third-

person” character development. This is the subject of enormous analytic attention in literature. Just for example: Kafka’s revision of *The Castle* from the first person (teller-character) to the third person (“K.”) (reflector-character) (Stanzel 1981, p. 7) or simply a “reflector” (Jahn 1997, p. 443) is deemed by Stanzel to allow a release of the protagonist “from the reader’s demand for an explanation of the countless inexplicable and mysterious circumstances which surround the hero.” A teller-character must try to explain herself or himself; a reflector-character need not (Stanzel 1981, p. 155). So, we observe K. rather than meet him. Sometimes we seem to be “mind-dropping” on him (to use an analogy with eavesdropping). Reflectors do not narrate or transmit, but instead create a “covert or dissimulated mediacy” (Stanzel 1981, p. 5). As suggested through the Kafka example, “what is presented through a reflector-character [also] makes no . . . claim [to completeness]. The selection of elements from the world seems to be arbitrary, determined by the reflector-character’s experiential and existential contingencies” (Stanzel 1981, p. 8).

But how might musical mind-dropping be done? In literature, the narrator, typically using third-person pronouns, needs to keep talking, of course, if we are to observe anything. Intriguingly, computer music can actually “stop talking” and just let us into the reflector-character’s mind. There would seem to be a body of work which has used this device, whether or not the composers have in any cases intentionally emulated literary discourse or not. So, how, in computer music, especially without dialogue or text, can we hear the difference between the stance of a reflector-character and that of a dedicated narrator? A narrator (teller-character) is trained to recount for us, and therefore, with much more completeness, typically. Thus, the focus of the audio scene is likely to be broader and temporally more contiguous. In comparison, a reflector-character may reveal idiosyncratic sonic distortions or locational markers. In fact, given its naturally nonverbal discourse, computer music may be more naturally suited in certain ways to this technique than is literature.

Robert Normandeau’s *Jeu* (Normandeau 1990, composed in 1989) creates an opening tableau

that seems aptly described as movement from a teller- to a reflector-character. The work's opening moment of sung male voices, a large group from which an individual voice sometimes pokes out, suggests a strong subjectivity. It is vibrant and declamatory. Out of context, one could hear the voices as moving in faux syntactic patterns for over a minute, with glottal-like rhythms and delineated spatial paths constituting the virtuosity of the vocal "play." The opening source material is in fact taken from Perotin's twelfth-century *Viderunt Omnes*, a highly melismatic plainchant. It is as if the pitch counterpoint of the original is transformed into pure rhythm, driving a mostly monophonic sonic stream now. Given the concept of the piece, Normandeau's connection of even the transformed counterpoint to the idea of "play," or "rules of the game" (Normandeau 1990, p. 14 of program notes), casts an entrancing light on the activity of the singers. It is also reflexively pointing toward the play that the composer himself engaged in, deforming the very ancient singing style through computer manipulation.

At approximately 2:05, the apparent reflector-character appears. We are not "told" anything directly by this character; he (to use the gender implied by the opening context) does not sing or talk. But we are transported instantly to his location, hearing and "seeing" a happy and chaotic scene of young children playing through his ears. Intriguingly, from c. 2:25 until 3:00, both the narrator(s) and the reflector-character co-exist—they are sonically overlaid—though clearly they do not inhabit the same place or time. (This sequence is heard in Sound Example 4, which contains 1:00–2:45 of the piece.) In a given interpretation, one of the opening narrators and the reflector-character could, at 2:25 into the piece, conceivably be the same person, inhabiting different moments in time and different "positions." The simultaneity that Normandeau creates with these two different individuals would be difficult to portray in literature or in film. (Split screens could attempt this but would tend to imply two cameras rather than simply omniscience across time and space, as the conflated sound layers can do.) Normandeau's reflector-character's sonic

perception is idiosyncratic, in a way that raises a set of philosophical questions that can even perhaps be tied to those Wittgenstein raises in his debates about "private language," "showing versus saying," the limits of semantics, and notions of the inexpressible. As Steward Candlish and George Wrisley write: "After all we seem to understand the question in §256 [as] 'Now, what about the language which describes my inner experiences and which only I myself can understand?' But is Wittgenstein suggesting we only seem to understand this question? The matter may not be clear" (Candlish and Wrisley 2012). Can we ever express what we mean? Bypassing language and modeling direct experience, computer music narrative can in fact explore this vast question artistically.

Elements of Literary Narrative

A narrator does not always communicate directly to the listener or reader. Bal addresses this by expanding the narrator concept (as do others, e.g., William Nelles [1990]), into a more nuanced bipartite structure containing a "focalizer" possibility as well. In other words, a piece may have a narrator who is also the focalizer (but who tends to be called simply the narrator); it may have only a focalizer who is not narrating; or it may have two subjectivities: a focalizer who sees all and, simultaneously, a narrator.

Focalization and Narration

A focalizer inhabits a position that phenomenologically precedes, or may conflate with, the narrator's. As Bal states, "focalization refers to the story represented, and the concept of narrator to its representation, by acting as the steering perspective on the events (or fabula)" (Bal 1997, p. 162). Nelles's recommended revision to focalization theory is similar to that presented in the 1970s–1980s by Gérard Genette (Nelles 1990, pp. 366–376). For both, a focalizer is an experiencer,

a “filter.” One advantage of including the term “focalizer” is that it explains how the reader or listener senses impressions. In the case of music, we can actually gain access to what the focalizer hears. In sum, a focalizer shows, and a narrator tells. Sheer presentation (as opposed to a mediated re-presentation) can be compelling: “‘what is the use of a book,’ . . . ‘without pictures or conversations?’” as Alice (in Wonderland) notes (Carroll 1865/1971, p. 7).

But, how do we sense, if we do, that a subjectivity is sharing with us what she or he (or it) hears? Certainly, overt speech where the narrator uses the word “I” achieves this. Think of *I Am Sitting in a Room* (Lucier 1990, composed in 1980), or Katherine Norman’s *Hard Cash (and small dreams of change)* (Norman 1997), in which sampled voices speak in first-person voice: “I think”; “I believe.” Articulation of an “I” invites us to identify, and states unequivocally that it is her or his perspective we are hearing. If no subjectivity is apparent, our sense of subject position is not easily mapped onto another ego. We more likely remain in our own respective subject position, outside of the work, looking in, courtesy of the focalizer.

Text, Story, and Fabula

The text (or “discourse”) is the most discrete level of syntactic structuring in a narrative medium. It is specific to a genre. In an electroacoustic work, the “text” might include significant spatial panning or reverberation, for example.

The story arises from the discourse; more specifically, the story is what Bal and many literary theorists call “selective temporal reordering.” It is a subset of the “logically and chronologically related events that are caused or experienced by actors” that is the “fabula” (Bal 1997, p. 5). The story, in other words, is “merely” how the fabula is told. The analytic concept of the fabula, it seems, is to point beyond the borders of the composition itself. Whatever we infer as a larger pre-existing framework (which thus can change) influences our

interpretation of the story. An explanatory theory of a story is thus never complete.

Temporal Considerations

Bal’s re-ordering techniques, i.e., storytelling techniques, include “direction,” “anachrony,” “distance,” “functions,” “span,” “achrony,” “slow-down,” “pause,” and “frequency,” to name a handful (Bal 1997, pp. 79–111). Some of these refer to time perception itself. Bal’s discussion of time management in narrative points to an interesting inference, that chronology itself can be an arbitrary organizational tool for grouping elements of our experiences into meaningful storage. Though Abbate claims that music does not have a past tense (Abbate 1996, p. 53), and this is true in the sense of pure discourse, applying Bal’s list to electroacoustic music illustrates persuasively the vast chronological complexities and commentaries possible.

From Bal’s list, one of the most palpable analogues in the electroacoustic medium is “pause/freeze/slow-motion.” Such a gesture can catalyze a shift in perspective, or it can invoke a highly intensified moment. Time manipulation in electroacoustic music, as in film, is manifest mimetically, i.e., shown to us directly; and Bernard Parmegiani’s *La roue ferris* (Parmegiani 2004, composed in 1971) portrays this strikingly. (Sound Example 5 contains 1:42–2:25 of the piece.) It is fundamental to the meaning of the piece, which is in essence an expanded moment. Parmegiani’s “frozen” moment is overlaid with other music that nonetheless progresses normally in time. He thus creates a sensation for the listener of engaging with two temporal (and maybe locational) positions at once, each with a radically different sensibility and narrative role. First, there seems to be a focalizer (possibly a narrator) implied by the opening tunnel-vision-like textural “freeze,” with its obsessively sustained pitches, A and F. (It is not an enactment of an object freezing, but of a sustained substance, time or experience itself.) Then, discrete pointillistic melodic fragments move against this texture in synchronization with a normal flow of time.

Ways of Communicating: Showing and Telling, as Realized in Computer Music

The traditional literary terms for “showing” versus “telling” are *mimesis* and *diegesis*, respectively. These techniques may work in conjunction with temporal deformation, or they may be resultant qualities that are hard to pin on a specific discourse device. They are, nonetheless, useful analytic distinctions. Even the most naturalistic sound recording can imply diegesis if it causes us mentally to “hear” a narrator. Annea Lockwood’s *A Soundmap of the Hudson* does this, in the form of its audio release, which lacks the full installation version’s content (Lockwood 1989). Though we hear no footsteps, we sense the presence of a narrator (or narrators) through the intricate concatenation of overlapping river segments which each have a single point perspective.

A mimetic experience, in contrast, typically lacks signs of a narrator, and will tend to lead the listener’s ears less intently. The electroacoustic discourse that effects *mimesis* and *diegesis* does not suggest that these two stances exist in a simple, functional relationship. Sometimes it is the most stunningly close-miked elements that allow the listener immersion in a textural complexity that cannot be absorbed without active attention. Hence, a listener is directed on one level, and given no direction on another.

In Sound Example 6, which contains 3:00–4:15 of *A Soundmap of the Hudson*, we hear a passage that shows Lockwood’s authorial involvement, first as focalizer, and then as narrator (as she points us, physically, to a new fragment of recorded river). (It is also conceivable, of course, via some other interpretation, that the opening bird might be read as a narrator or reflector character.) By the time the second river texture has come into full earshot, our experience has shifted to a mimetic one; a bit more work involving active listening is required.

A perception of *mimesis* versus *diegesis* may also be based on our sense of the agency and knowledge of whoever or whatever has led us into the piece. In Paul Koonce’s composition *Hothouse*, for example, we are intermittently shown the hothouse (but otherwise seemingly ignored) by

a focalizer/narrator, who is taking in the entire scene from a third-person point of view. In between these segments, the “anima” (Koonce 1996, p. 1 of program notes), or inner self of the narrator, allows us into her or his (or its) psyche. What we hear through the anima, in a first-person-like point of view, are objectively unobservable, surrealistically concatenated sound-thoughts. They are suggestive of cognitive tendencies, since they restructure recognizable but distorted sampled sounds, perhaps as a language. We likely feel more detached, as a distant observer, in the focalizer-revealed sections, partly because no one is in the scene and we may not know why we are there. We likely feel more attached in the anima sections, owing to our strongly directed attention that pulls us to identify with the narrator. Sound Example 7, which contains 2:44–3:52 of the piece, takes us from the “anima” (we are directed; told [diegetic]) to a “realistic” section through a focalizer/narrator (we are shown; not directed [mimetic]); then back to the anima. To contextualize all of this with an extreme example: in cases where “the title is the only utterance of the primary narrator” (Bal 1997, p. 62) the diegesis is the most minimal and imperceptible possible.

The Concept of Referentiality in Computer Music Narrative

Mimetic discourse and diegetic discourse, in other words, do not necessarily map onto a respective dichotomy of immersion versus detachment. In general, however, the potential is strong for computer music to provoke a sense of immediate listener attachment simply by revealing something. Part of computer music’s unique narrative potential may be a pushing back against what has been called the “semiological victory” in philosophy (Kerby 1991, p. 9), i.e., the ascendancy of the sign over the referent. In electroacoustic music, quite unlike acoustic music, a “sign” may be nearly coincident with the referent. Thus the sound of thunder in *L’eau* from Annette Vande Gorne’s *Tao* (Vande Gorne 1993, composed in 1984) (at 2:36 and intermittently for a bit longer) is a sound referent that is a function of real thunder; it derives its meaning directly from

real thunder rather than from a system of signifiers. "Direct reference theory is simply the view that the semantic value of a complex expression in which a name, *n*, occurs is determined as a function of *n*'s referent" (Almotahari and Rochford 2012, p. 9). Referentiality thus has a semi-permanent home in the materials of the sampled electroacoustic genre. Such music can have both direct reference and semiotically charged abstract material, a pairing not found in film or literature to the extent found in music.

Empathy and Empirical Knowledge

Does such direct reference invite a hyper-intense sort of identification for the listener, perhaps leading toward Truax's fourth soundscape principle, meaning that the work enhances our "everyday perceptual habits" (Truax 1996, p. 63)?

Suzanne Keen contends that what a listener brings to the work is just as integral toward a resultant bond of empathy as what the composer has constructed (Keen 2006). Nonetheless, the direct reference capacity of electroacoustic music frequently leads to personal associations of a different order than arise in acoustic music listening. Does narrative electroacoustic music thereby allow a sort of empathic response not possible through non-narrative referential music, or abstract music? Is narrative empathy, in particular, qualitatively different from aesthetic "immersion"? Let us assume that aesthetic immersion approximates a "freed subjectivity" (Almén 2008, p. 35), a sense of losing of one's self-awareness. Narrative empathy, on the other hand, is a vicarious, spontaneous merging with the sensibility of a narrator (or a character). The distinction between oneself and the other is still present, as is self-awareness. An interesting question, as Keen puts it, is whether "we respond because we belong to an in-group, or [whether] narrative empathy [can] call to us across boundaries of difference?" (p. 223). A unique aspect of electroacoustic music discourse is that a narrative point of view may be a compelling feature on its own, even if a set of sampled sounds is actually less interesting than reality.

Selected Theories of Musical Narrative, and Other Theories with Potential Application to Computer Music

Are there any analytic insights that musical narratology might productively add to the study of computer music? Consideration of Abbate's provocative theory in *Unsung Voices* (Abbate 1996) actually helps to highlight the uniquenesses of the electroacoustic genre. Abbate prefers to call "narration" something that is specifically an "act" by an "I," whether human or not (p. 19). And, for her, true narration requires distance; it is not the same as a miming of reality (p. 27). If one is sympathetic to her points, they lead to a greater appreciation for the range of unique discursive techniques in electroacoustic music that both articulate an "I" and that create a non-replica-like reality. What stories can computer music tell, in other words, that acoustic music cannot? One example traced earlier is the sonic modeling of a character who is truly in two places or two times at once, through overlaid sounds.

Nattiez, as another scholarly reference point of music narratology, simply disavows musical narrative as a viable principle. For him, narration happens only at the level of discourse, not story; so, for him, the composer would be the only possible narrator (Nattiez 1990, p. 249). If one is sympathetic to Nattiez, a potentially revealing analysis might address the discourse itself as a hidden story. (In other words, "Why did composer so-and-so choose the specific computer processing technique she or he did, for such-and-such a passage?")

In contrast to the theories of Abbate and Nattiez, Almén's musical narratology places even more responsibility on the listener (Almén 2008, p. 13). Listeners impose narrative through hearing (p. 36), as they re-evaluate ranked "marked" elements, in relationships, over time (p. 51). He calls this process "transvaluation." In sum, for Almén the narrator is largely an abstract device through which organizing, mediating, situating, and valuing take place. For Abbate, the narrator is more directly the sheer expression of a "self." And, finally, for Kerby, an "I" needs a "you" (Kerby 1991, p. 13), potentially pointing toward analytic focus on the

impact of the “gaze” of the electroacoustic music on the listener. Kerby contends that narrative is “indigenous to human experience . . . not an imposition of art on life”; and he nods toward thinkers like Hannah Arendt, with the conviction that “I”s are not intuited through self-reflection, but are constructed, in part through narrative (Kerby 1991, p. 12). To summarize as concisely as possible: Almén sees what we derive from narrative to be a bit different in nature from what Abbate or Kerby see. Almén talks of transvaluations according to mythoi, rather than expression of a self. He is interested in “cultures” more than in individuals. His musical narratology would be interestingly applied to electroacoustic music spanning many years, toward locating culturally reactive paradigm shifts. Kerby’s theory of narrative is most useful regarding applications to electroacoustic music in its reminder that narrative “is a primary vehicle of [personal] ideology” (Kerby 1991, p. 13).

Finally, an approach focused on the listener directly is James Phelan’s “rhetorical approach,” which considers how story and discourse influence what readers know, believe, think, judge, and feel (Phelan 1996, p. 141). What Phelan points out, citing the work of Peter Rabinowitz (Rabinowitz 1977), is that the “audience” for a work includes both a flesh-and-blood audience and an ideal one. The actual, living audience has impossible-to-predict individual and sociocultural distinctions; and the ideal audience encompasses the most perfect set of flesh-and-blood listeners whom the composer expects, or hopes, to address (Phelan 1996, pp. 215–218). Within the ideal audience is also an imaginary construct called the “narrative audience,” which describes the “observer role within the world of fiction, taken on by the flesh-and-blood reader in that part of his or her consciousness which treats the fictional world as real” (p. 218). (In the construction of the electroacoustic narrative audience, where is the listener standing or floating, in physical proximity in relation to the work? Is the listener alone or in a group?) And last, a bit like the innermost of a set of Russian nested dolls, another important audience category appears as a subset of the narrative audience. Called the “narratee,” it is the “intratextual audience” (Herman et al. 2012,

p. 7) “directly addressed by the narrator” (Phelan 1996, p. 218). Another way to think of it is as “a character position in the text, one that the narrative audience in a sense observes” (Herman et al. 2012, p. 7).

Analytic Methodology in This Essay

In the concluding thumbnail-analyses I ask several questions of each work:

1. Who, or what, is the primary consciousness (focalizer or narrator) through which we enter the work?
2. Are there any other subjectivities who self-consciously communicate with us? If so, from inside or outside of the story? Through a voice, movement, or some other means?
3. Last, what is the relationship between narrator and ideal audience? Who is the narrator attempting to address, and with what agenda, if any?

“The presenting of material in a certain way may . . . set up certain expectations and biases in the reader” (Kerby 1991, p. 107). Ultimately, to look at a musical work as a network of pathways for the audience into an author-discourse universe is to get at the author’s (composer’s) value system. How is the audience addressed? Is the listener privy to the characters’ thoughts, or are these kept private? What sort of hierarchies or non-hierarchies amongst subjectivities does the work enable? How much responsibility or freedom is the listener given? What are the propositions that govern the interrelated frames of theorized reality? Each work is thus a worldview.

Musical Analyses, Interpretations, and Idiosyncratic Techniques

Pentes (1974), by Denis Smalley

This piece (Smalley 2000, composed in 1974) is readily heard in four parts (beginning at 0:00, 3:09,

7:20, and 9:22) delineated by textural, melodic, and gestural divisions. In Part 1 we sense both a primary consciousness and intermittent personalized reflector-characters. Even amidst the heterogeneity of the opening section, a noticeable, quirky element emerges briefly, from c. 0:09–0:23; and again from 1:28–1:53. This sound expresses itself in a fast, pulsating eighth-note pattern, with a distinct formant, a constant pitch, and fuzzy envelopes. I will call this musical element a “little creature sound.” This sound’s strong formant, and its movement approaching and receding from the focalizer, suggest agency of some sort. (Owing to some formant nuances and because of a gestural language Smalley develops here, a listener might actually hear these as several “little creatures.”) (Sound Example 8a contains 1:40–2:57 of the piece.) In Part 2, glissandi emerge from and return to a singular cataclysmic event. The focalizer remains. Part 3 feels like an epiphany, a stepping into another piece. Its function seems largely a sustained entrance for Part 4, in which Northumbrian pipe melodies unfold, eerily devoid of any acoustic context. Comprehension, i.e., interpretation, of the pipes segment cannot be a trivial aspect of an analysis of the piece. If one listens to Part 3 with less connotative attention, and more attention to the sonic surface, one may notice another vocally suggestive formant (c. 7:30). It lingers throughout Part 3. There is thus, again, an “I”-like sound in Part 3. (Sound Example 8b contains 7:50–9:06 of the piece.)

Although Part 4 might be the most obvious choice for hearing a narrator—someone had to play those pipes—I read this differently. The singularity of the solo creature sounds in Part 1 (before the crowd of similar voices joins in) and the suggestion of a disembodied voice in Part 3 may be heard as subtly linked. They are two internal sensibilities, neither one quite human. The piper, lacking placement in an acoustic-like space, ultimately seems not so much a reference as a symbol.

The features in the musical discourse that might signify a “self” in Parts 1 and 3 are thus: singular, vocally suggestive formants; singularity of timbre; textural and/or registral isolation; agent-like movement (Part 1); lack of movement (Part 3); and static pitch (metaphorically connoting stable

identity). To look at this piece from the point of view of these two internal narrators and/or reflector-characters (subject to one’s interpretation!) catalyzes further meditation on the nature of their coexistence in the same piece.

Is there an ideal audience, a narrative audience, or a narratee?

The narrative audience seems to enter the work in a spectator/auditor role through a focalizer (Parts 1 and 2); and later the narrative audience enters as a singularity, as if from the inside, in an identificatory role (Part 4).

A listener may easily step into the culminating experience and personalize it, especially because the melodies seem to happen internally (in one’s consciousness). The first subjectivity (“I”) seems to be talking to us; the second one, mostly to itself. (This interpretation is based on movement: the first “voice” is energetic; the second is immobile. It is also based on there being “pretend” acoustic sound in the first, and no such acoustic context in the second.) This subtle change of position lends a subliminal story line to the work that concerns how the listener is invited to participate in the work. Example 8a contains the first character; 8b, the second.

The Wolves of Bays Mountain (1998),
by Judy Klein

Juliana Snapper reads *The Wolves of Bays Mountain* (Klein 2004, composed in 1998) as “poles of abstraction and immediacy,” referring to its starkly juxtaposed processed sound and naturalism, respectively (Snapper 2004, p. 11). This is a helpful description of Klein’s unequivocal movement from unreality to reality and back, with the piece’s outer frame portraying a fictional domain, and the large inner middle suggesting realism. But her real and fictional worlds are mutually permeable (blending one into the other), as is the actual frame of the work itself. We sense authorial intervention in the shimmering, digitally filtered wolf sounds at the beginning. They seem to be cultural memories (Löwy

2005, pp. 29–34), since no narrator has yet been introduced. The focalizer (the composer, perhaps) seems to be outside of the work. As the wolves are uncloaked into their unprocessed forms, Klein as documenter and director seems ever more apparent, but as this happens, intriguingly, she moves into the work herself. (This is heard in Sound Example 9, which contains 3:30–4:15 of the piece.) By 5:11 we likely sense that she is narrating—without words, but with the sound recorder. We eventually leave the naturalism (c. 16:40) moving again toward a sheen of wolf facsimiles, and it is here that the wolves themselves seem to narrate, from an internally located stance. Or, they are reflector-characters. Ironically, though Klein herself does not speak in the piece, the wolves do. Their recorded vocalizations are truly that.

Is there an ideal audience, a narrative audience, or a narratee?

This is a political piece, and the narrative audience is coaxed to distinguish individual wolves' vocalizations and movement patterns. This piece is a stunning example of how sonic but wordless narration can convey far more detail (of a certain sort) than could literature or film imagery.

***Sheremetyevo Airport Rock* (2002), by Jon Appleton**

Sheremetyevo Airport Rock (Appleton 2004, composed in 2002) presents an even more narratively complex sound world than the previous example, in that the piece is aware both of itself and of an outside intervention. What is normally a hidden pretense—a composer's control of characters and events—is here completely transparent, a part of the piece. (The characters themselves may know this; but it seems more likely that, like Abbate's opera singers, they do not know they are in a musical composition. They seem not to hear, for example, the hijacked seatbelt icon which punctuates each passenger interview perfectly.) The frames of the listener's reality and the passengers' reality are thus twisted together. It is largely because we do not hear the voice of the interviewer (who is recording passengers on

a plane from Russia, to Texas, it seems) that we may construe a single person simultaneously in the positions of focalizer, narrator, and author. The composer is omniscient and omnipotent; but he also gives himself a role as a mere mortal in the piece, as interviewer (a role he also inhabited in "normal" reality, when the samples were recorded). Despite Appleton's breaking the frame to step, as composer, dramatically into the plane scene; he does not ultimately strongly direct the listener's attention. The soundscape has a very mimetic feel, with great freedom for the listener to rove the aisles, amidst the single active music channel (electroacoustic music only, of course) which seeps into the entire plane.

Is there an ideal audience, a narrative audience, or a narratee?

Appleton's humor in this piece frequently takes the form of Shakespearean asides. The passengers on the plane serve as reflector-characters, and so the narrative audience is both a confidante (of the external narrator, Appleton) and an empathic cohort (of the passengers). The ideal audience will be appreciative of the conceptual intricacy of the narrative design. (Sound Example 10 contains 2:00–3:30 of the piece.)

***Dodohead* (1994), by Christopher Penrose**

Penrose's title is a reference to dodecaphonic repertoire. With the help of this initial prompt one can then discern, from the opening moments of the piece itself (Penrose 1994), a line of connecting motifs: from repertoire that is nearly incomprehensible (to many listeners), to oppressive piano pedagogy (for an interpretive take on related themes, see Goode 2011), to a questioning of the notion of institutionally designated values. These topics lie on a warped continuum that also includes themes of military-industrial-complex coercion and conspiracy theory (suggested by various borrowed media fragments). Six aphoristic speech fragments intervene, like non sequiturs, amid lengthy synthetic montage-like episodes; and the piece, at first, may be barely comprehensible. But the narrative structure is intricate

and of interest on its own. *Dodohead* demonstrates consciousness of itself as a piece. The clearest example of this is the woman's voice that emphatically exclaims at the opening, "A four-year-old will bang away at the piano keys as hard as he can." The piece then bangs away at the computer for close to four minutes, almost as if it were responding to the exclamation, dared to do so. Finally, as if aware that she is entrusted with the culminating cadence, the woman insists "Enough!" There seem to be two narrator types, the "composition-framing" woman; and two men, who are internal narrators. This narratorial sequence takes us from being addressed by someone who knows that she helps to execute Penrose's piece, to being addressed by speakers who have no clue that they are in this musical composition. (Sound Example 11 includes the musical montage leading into the second exclamation, and continuing until the third one. It contains 3:30–4:32 of the piece.)

Is there an ideal audience, a narrative audience, or a narratee?

Each speech fragment will likely conjure up a spontaneous personal association, quite possibly as nonlinear as the exclamations themselves. This piece seems, philosophically, to eschew the notion of an ideal audience. Still, if there were to be a hypothetical audience, it might include people with some exposure to musical academia. It might also include people (academic or not) who appreciate style- and genre-crossing artistic experiments. The sample of a voice saying "Dream on!" is borrowed from a context that explores the loss of a sense of self as a valid reality check, namely, the 1990 film *Jacob's Ladder*, directed by Adrian Lyne (Penrose 2011). *Dodohead* creates a Kafkaesque situation in which the listener is vicariously unable to decipher what is real and what is delusional.

***Light Rain Laganside* (2009), by Eric Lyon**

The title and the program note of *Light Rain Laganside* (Lyon 2009) indicate that the sound world points to an experience and to a place. This 8 min, 27

sec-long composition can readily be heard as being in three large block-like sections (starting at 0:00; 3:39; and 6:15) plus a final, strikingly different section (from c. 7:30 to the end). The piece's sections take us from a sense of first-person narration, to third-person narration, back to first-person narration, and then to focalization, respectively. Here are some musical discourse features that support this analytic reading:

Part 1 (narrator, first-person): The sense of an "I" emerges from the strong and focused directedness of our attentions. We are near to, and may even have the sense of inhabiting the space between the ears of, the hypothetical narrator. This is partly due to the textural tableaux' sonic blurriness, a feature of the piece's obliteration of all distinction between foreground and background. We hear the piece as a monolithic swath of sound, rather than a hierarchy of acoustic features. The most interesting aspect of the strong-armed direction of our attention is that it happens through spatialization, within a unified sonic texture. In other words, though the camera turns (i.e., the narrator's eyes and ears turn), nothing new that would be called "object-like" appears on the "audio scene" (Sundaram and Chang 2000, p. 2441).

Part 2 (narrator, third-person, plus reflector characters): This section has hints of an acousmatic approach (e.g., *Musiques & Recherches* 2012) in its environmentally suggestive sounds. Bell-like events cast off voice-like formants. There is a seductive counterpoint of at least four different such voice-like entities throughout this substantial section. (Despite the environmentally suggestive nature of the source, the piece is entirely synthetic in origin.) That they do not truly sound like real voices dissuades us from invoking visualization schemas as we listen. Therefore, we hear maximal detail. The bell-voice entities are distinguished by register, implied gender, spatialization pattern, and length of utterance. My analysis here reads these characters as being described by someone, i.e., the narrator. Another more complicated interpretation might designate all of these voices as multiple reflector-characters, seemingly talking with each other rather than to the audience. Much different from Normandeu's "perceiving" reflector-character described earlier, these characters seem to be talking, contributing specific thoughts or memories. In either

interpretation, of interest here is the emotional content of the subjectivities that are articulated through the musical sounds. (Example 12a contains segment 3:28–4:40 of the piece.)

Part 3 (narrator, first-person): We are returned, dramatically, to the viewpoint of the first narrator.

Part 4 (conclusion of the story): The piece's end is a torn-off page that pulls us abruptly and self-consciously back to our world. This process transpires over the course of about a minute, during which time the coda points to momentary signifiers of our reality; and what appears to have been a substitute world now seems to evaporate. (Compare this ending to that of *Sheremetyevo Airport Rock*, in which the composer's hand reaches in to tamper one last time, and is virtually still stuck in the fabricated world as the piece concludes.) Lyon's ending gesture elucidates the composer–composition relationship almost as clearly, though it highlights the composer as caretaker of the listener rather than as situational provocateur. *Light Rain Laganside's* coda strongly exemplifies Nattiez's sense of musical narration as discourse. The piece's detailed spatialization, even in the stereo version, carves out an impression of dissipation, as mentioned. (The work also exists in an 8-channel and a 16-channel format.) But upon careful listening one can hear that the coda has a coda, and yet another coda. Each one arises as if it is another layer of a mystery-sustaining curtain being pulled aside, only to reveal a gratifyingly persistent virtual world, even if more and more distant or less and less palpable. (In the stereo version, this is accomplished by the relative amplitudes of the textures; in the multichannel versions, the revealed section is situated in speakers further from the audience than the "curtain" texture, which is spatialized nearer to the audience.) Example 12b is an excerpt from 7:58 to the end of the piece.

Conclusion

Computer music that alludes to an environment can enable narrativity by articulating subjectivities and by manifesting distinct cognitive boundary frames. The narrative viewpoint serves as connective tissue between our sense of lived reality and the

represented realities in the musical work. How we engage with the narrative conduit is partly due to what we bring to the work, but in no small part also due to the myriad structural devices which permeate this subset of electroacoustic music. The devices embed us in particular ways and pull us in and out of frames, almost as a story in its own right. While bearing certain similarities to both film and literature, computer music discourse also possesses unique capacities. In particular, its transparent frame, along with its being relatively untethered regarding sonic movement of invisible sources, makes its "purported reality" potentially more ambiguous than that of visual art. Electroacoustic sound's mimetic directness is also distinct, in allowing us to hear what a character hears rather than our simply being told about it. We inhabit the locus of the narrator with particular immediacy. The "I" in the electroacoustic medium can situate itself—and thus the listener—in a host of relational roles that highlight the movement between the disparate realities as an experiential, cognitive, and aesthetic feature of our listening.

Acknowledgments

All sound excerpts are included courtesy of the respective composers and their publishers: Bridge Records (Sound Example 1), WERGO (Sound Example 1), empreintes DIGITALes (Sound Examples 2, 4, and 8), SEAMUS (Sound Examples 3 and 10), Lovely Music, Ltd. (Sound Example 6), Mode Records (Sound Example 7), INA-GRM (Sound Example 5), and OpenSpace (Sound Example 9).

References

- Abbate, C. 1996. *Unsung Voices*. Princeton, New Jersey: Princeton University Press.
- Allen, R. 1993. "Representation, Illusion, and the Cinema." *Cinema Journal* 32(2): 21–48.
- Almén, B. 2008. *A Theory of Musical Narrative*. Bloomington: Indiana University Press.
- Almotahari, M., and D. Rochford. 2012. "Is Direct Reference Theory Incompatible with Physicalism?" Available online at <http://uic.academia.edu/MahradAlmotahari>. Accessed 10 July 2012.

- Appleton, J. 2004. *Sheremetyevo Airport Rock* (2002). On *Music from SEAMUS volume 13*. Los Angeles: Society for Electro-Acoustic Music in the United States, EAM-2004, compact disc.
- Arendt, H. 1958. *The Human Condition*. Chicago, Illinois: University of Chicago Press.
- Bal, M. 1997. *Narratology: Introduction to the Theory of Narrative*. 2nd ed. [1st ed.: 1985.] Toronto: University of Toronto Press.
- Barthes, R. 1977. "The Grain of the Voice." In Stephen Heath, ed. *Image, Music, Text*. New York: Hill and Wang, pp. 179–189.
- Brontë, C. 1847/1965. *Jane Eyre*. New York: Barnes and Noble.
- Brunson, W. 2012. "A Narrative Stance—Making a Case for Narrativity in Electroacoustic Music." Electronic Music Studies Network Conference 2012. Abstract available online at <http://www.ems-network.org/ems12/abstract.html>. Accessed 29 July 2012.
- Burnham, S. 1995. *Beethoven Hero*. Princeton, New Jersey: Princeton University Press.
- Candlish, S., and G. Wrisley, 2012 (Summer 2012 Edition). "Private Language." In Edward N. Zalta, ed. *The Stanford Encyclopedia of Philosophy*. Available online at <http://plato.stanford.edu/archives/sum2012/entries/private-language/>. Accessed 1 August 2012.
- Carroll, L. 1865/1971. *Alice's Adventures in Wonderland*. New York: Norton.
- Cogan, R. 1984. *New Images of Musical Sound*. Cambridge, Massachusetts: Harvard University Press.
- Cumming, N. 1997. "The Subjectivities of 'Erbarne Dich.'" *Music Analysis* 16(1):5–44.
- Dhomont, F. 1996. *Météores* (1989). On *Les dérives du signe*. Montreal: empreintes DIGITALes, IMED-9608, compact disc.
- Eco, U. 1992. "Reading My Readers." *Comparative Literature* 107(5):819–827.
- Gamson, W. A., et al. 1992. Media Images and the Social Construction of Reality. *Annual Review of Sociology* 18:373–393.
- Goffman, E. 1974. *Frame Analysis*. New York: Harper and Row.
- Goode, D. 2011. "Torture by Music." *Open Space* 12/13 (double issue):140–153.
- Herman, D., et al. 2012. *Narrative Theory: Core Concepts and Critical Debates*. Columbus: Ohio State University Press.
- Jahn, M. 1997. "Frames, Preferences, and the Reading of Third-Person Narratives: Towards a Cognitive Narratology." *Poetics Today* 18(4):441–468.
- Keen, S. 2006. "A Theory of Narrative Empathy." *NARRATIVE* 14(3):207–236.
- Kendall, Gary. 2010. "Meaning in Electroacoustic Music and the Everyday Mind." *Organised Sound* 15(1):63–74.
- Kerby, A. P. 1991. *Narrative and the Self*. Bloomington: Indiana University Press.
- Kim, S.-J. 2006. *What the Bird Saw* (2004). On *Music from SEAMUS, Volume 15*. Los Angeles: Society for Electro-Acoustic Music in the United States, EAM-2006, compact disc.
- Kim, S.-J. 2008. "Listeners and Imagination: A Quaternary Framework for Electroacoustic Music Listening and Acousmatic Reasoning." PhD dissertation, University of Florida. Available online at [www.reddoorsound.com/files/Dissertation\(SUK.JUN.KIM\).FINAL.pdf](http://www.reddoorsound.com/files/Dissertation(SUK.JUN.KIM).FINAL.pdf). Accessed 5 May 2011.
- Klein, J. 2004. *The Wolves of Bays Mountain* (1998). On *The Wolves of Bays Mountain*. Red Hook, New York: *Open Space*, vol. 15, accompanying compact disc.
- Knapp, R. 2000. "A Tale of Two Symphonies: Converging Narratives of Divine Reconciliation in Beethoven's Fifth and Sixth." *Journal of the American Musicological Society* 53(2):291–343.
- Koonce, P. 1996. *Hothouse* (1992). On *Music from SEAMUS Volume 5*. Los Angeles, California: SEAMUS, EAM-9601, compact disc. (Also on *Walkabout and Back*. 2000. New York: Mode 90, compact disc.)
- Kramer, L. 1991. "Musical Narratology: A Theoretical Outline." *Indiana Theory Review* 12:141–162.
- Kramer, L. 2001. "The Mysteries of Animation: History, Analysis and Musical Subjectivity." *Music Analysis* 20(2):153–178.
- Kristeva, J. 2001. *Hannah Arendt: Life is a Narrative*. Toronto: University of Toronto Press.
- Lansky, P. 1992. *As it grew dark* (1983). On *Computer Music Currents 11*. Mainz, Germany: WERGO WER 2031-2, compact disc.
- Lockwood, A. 1989. *A Sound Map of the Hudson River*. NY. New York: Lovely Music CD 2081, compact disc.
- Löwy, M. 2005. [2001.] *Fire Alarm: Reading Walter Benjamin's "On the Concept of History,"* trans. Chris Turner. London: Verso.
- Lucier, A. 1990. *I Am Sitting in a Room* (1980). On *I Am Sitting in a Room*. New York: Lovely Music CD 1013, compact disc.
- Lyon, E. 2009. *Light Rain, Laganside*. In *Five Points: A Journal of Literature and Art*. Available online at <http://www.fivepoints.gsu.edu/events.html>. Accessed 30 September 2012.
- Maus, F. E. 1991. "Music as Narrative." *Indiana Theory Review* 12:1–34.

- McClary, S. 1986. "A Musical Dialectic from the Enlightenment: Mozart's Piano Concerto in G Major, K. 453, Movement 2." *Cultural Critique* 4:129–169.
- McClary, S. 2004. *Modal Subjectivities Self-Fashioning in the Italian Madrigal*. Berkeley: University of California Press.
- Musiques & Recherches. 2012. "Qu'est ce que l'Acousmatique?" Available online at <http://www.musiques-recherches.be/fr/musiques-recherches/presentation>. Accessed 27 September 2012.
- Nabokov, V. 1962/2000. *Pale Fire*. London: Penguin Books.
- Nattiez, J.-J. 1990. "Can One Speak of Narrativity in Music?" trans. K. Ellis. *Journal of the Royal Musical Association* 115(2):240–257.
- Nelles, W. 1990. "Getting Focalization into Focus." *Poetics Today* 11(2):365–382.
- Norman, K. 1997. *Hard Cash (and small dreams of change)*. On *Sonic Circuits V*. St. Paul, Minnesota: American Composers Forum, Innova 114, compact disc.
- Normandeau, R. 1990. *Jeu* (1989), On *Lieux inouïs*. Montreal: empreintes DIGITALes IMED-9002, compact disc.
- Parmegiani, B. 2004. *La roue ferris* (1971). On *L'oeil écoute*. Paris: INA C-2026, compact disc.
- Penrose, C. 1994. *Dodohead*. Unpublished composition. Available online at <http://soundcloud.com/christopher-penrose/Dodohead>.
- Penrose, C. 2011. Personal communication, 28 June.
- Phelan, J. 1996. *Narrative as Rhetoric: Technique, Audiences, Ethics, Ideology*. Columbus: Ohio State University.
- Rabinowitz, P. 1977. "Truth in Fiction: A Re-examination of Audiences." *Critical Inquiry* 4(1):121–141.
- Risset, J.-C. 1996. "Real-World Sounds and Simulacra in my Computer Music." *Contemporary Music Review* 15(1):29–47.
- Rudy, P. 2007. "Timbral Praxis: When a Tree Falls in the Forest Is It Music?" *Organised Sound* 12(1):5–13.
- Smalley, D. 2000. *Pentes* (1974). On *Sources/scènes*. Montreal: empreintes DIGITALes, IMED-0054, compact disc.
- Snapper, J. 2004. "Judy Klein's 'The Wolves of Bays Mountain'." *Open Space* 6:11–14.
- Stanzel, F. K., 1981. "Teller-Characters and Reflector-Characters in Narrative Theory." *Poetics Today* 2(2):5–15.
- Sundaram, H., and S. F. Chang. 2000. "Audio Scene Segmentation Using Multiple Features, Models, and Time Scales." In *Proceedings, 2000 IEEE International Conference on Acoustics, Speech, and Signal Processing ICASSP '00* vol. 6, pp. 2441–2444.
- Tamboukou, M. 2010. "Narratives from Within: An Arendtian Approach to Life Histories and the Writing of History." *Journal of Educational Administration and History* 42(2):115–131.
- Truax, B. 1996. "Environmental Sound Composition." *Contemporary Music Review* 15(11): 49–65.
- Vande Gorne, A. 1993. *Eau* (1984). On *Tao*. Montreal: empreintes DIGITALes IMED-9311, compact disc.
- Whittall, A. 2000. "Subjectivity, Synthesis, and Hermeneutic Narrative: Dissenting Voices." *The Musical Times* 141(1873):7–12, 14.
- Wishart, T. 2000a. "Computer Sound Transformation: A Personal Perspective from the U.K." Available online at <http://www.trevorwishart.co.uk/transformation.html>. Accessed 29 July 2012.
- Wishart, T. 2000b. "Sonic Composition in *Tongues of Fire*." *Computer Music Journal* 24(2):22–30.
- Young, J. 1996. "Imagining the Source: The Interplay of Realism and Abstraction in Electroacoustic Music." *Contemporary Music Review* 15(1):73–93.