

Musical Train Rides in the Classroom

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“Can you hear this as music?” and then again, “What makes it difficult for you to hear this as music?”

These questions are asked about Pierre Schaeffer’s *Étude aux chemins de fer* (1948),¹ and they are regularly asked in one of the first sessions of a comparative literature course on “Modern Literature and Other Arts: An Introduction.” The students have previously looked at a series of brief, anonymously presented verbal texts, among them an advertising ditty, Ezra Pound’s Imagist two-liner “In a Station of the Métro,” and a newspaper obituary first made to look like expository prose and then rearranged to look like a free-verse poem and entitled “Elegiac Verses.” They have discussed each of these texts in response to the question “Can you read this as a poem?” or, more generally, “Can you read this as literature?” Schaeffer’s *Étude* has likewise been played for them without announcement of title or composer’s name; they would not have been familiar with the name, but the conventional formula of name and title might have suggested that this was the “work” of a

¹Premier panorama de musique concrète, Ducretet-Thomson Records (DUC 8, 1956). See also Schaeffer, *La musique concrète* (Paris: Presses Universitaires de France, 1967).

supposedly established “artist” and thus have influenced their response.

The students already know why they are not being asked “Is this literature” or “Is this music?” They have been introduced to the idea that “literariness” is not a quality inherent in the text but conferred upon the text by its readers according to the cultural codes and conventions that enable or even oblige members of an interpretive community to read that text as “literary.” Schaeffer’s piece raises the question of whether we should likewise assume that the status of being “music” is assigned to, or withheld from, an auditory text by its audiences, depending upon currently accepted conventions. This would mean that Schaeffer’s piece might very well be music for some and not for others, and that those others should not therefore be considered incompetent or ignorant. One might even readily want to agree that a montage of recorded railway sounds would hardly have been “music” for Bach’s audience—only to stop and wonder whether that conclusion should really be quite so obvious. For if we were able to transport a battery-driven player of electromagnetic tape to the court of, say, Frederick the Great and play the *Étude* to an audience that would have no knowledge of any other consequence of the Industrial and Technological Revolution, if we could just make the listeners hear that sound, they would at least not be confronted with the interference of certain alternatives which make the answer to the question “Can you hear this as music?” particularly difficult for most students of the US-American sophomore-level college course. What the students tend to hear, certainly the first time they listen to the piece, is recorded noise stemming from a specific recognizable source—a source unknown to an eighteenth-century audience. And the more they are aware of that source, the more they tend to look for alternative functions of the piece, functions that have little to do with their expectations about the nature and function of music.

The students hear tape-recorded unadulterated sounds made by one or more railway trains with steam engines.² Inevitably, the first response is to read them as indexical signs, metonymically: where there are such sounds there is a train. Or, more precisely, in the context of the replay of a tape recording: where such sounds were produced there must have been a train. In part we respond exactly like that when we hear sounds produced by a violin; but when such sounds are not just tuning noises or runs up and down the scale, when they seem to form a fragment of a melody, we may be inclined to hear them less as violin sounds than as music, even when someone rehearses the same short passage over and over again. Trains are not conventional musical instruments, and we are not likely to register the sound of a passing train as a musical experience. However, an assertion that sounds produced by trains are *eo ipso* not musical sounds can partly be met by a reminder of the experience with the obituary notice, which suggested that signs and texts can be refunctioned.

The analogy is somewhat precarious and thus worth examining. Ordinary newspaper obituaries are verbal texts that, when encountered in their customary column, are not approached with “literary” expectations by the ordinary reader. The obituary is not a “literary” genre, and its conventional functions scarcely overlap with the functions served by the “literary” class of verbal texts dedicated, in more recent practice, to mourning and celebrating the dead—the elegy. However, by removing one such obituary notice from its accustomed place and reprinting it on an empty page with only the left margin justified and with a new title, Ronald Gross has extended

²What the original listeners were able to connect with direct experience has begun to recede into cultural memory and to assume nostalgic associations: some of the sounds will no longer be heard in Europe. For American students, direct exposure to any kind of railway sound is nowadays far less part of ordinary experience than it is for Europeans; nevertheless, I am not aware that any student of mine has ever failed to recognize the source. Apparently, they received their information from film and television.

an invitation to read it as an elegy,³ and no matter what the individual reader's ultimate response, it will have to involve an attempt to work with the text as if it were "literary."

ELEGIAC VERSES

Abraham Brodsky of 1671 North Avenue, founder and president of the Regal Electric Supply Company in Newark for 40 years, died yesterday at the Elizabeth General Hospital. He was 77 years old. He retired in 1961.

Surviving are his widow, the former Rae Litwin; a daughter, a sister and three grandchildren.

An obituary and elegy are both motivated signs: train sounds are for the most part unmotivated, although some are consciously produced as signals. As long as we actually see the train, stationary or in motion, we are likely to think of the sounds it produces as its auditory properties. As soon as the train is out of sight, its sounds assume the functions of signs referring us back to it and giving us a wealth of information about its position, the direction of its movement, its speed, and frequently also about the kind of train it is. And as passengers we need not look out of the window to know how fast we are going or that another train is passing in the opposite direction or that we are crossing a steel bridge or coming to a halt: we only need to listen to the train sounds. We can, of course, also simply enjoy the rhythms and sound patterns produced during the journey, without paying attention to what else they are telling us.

³"Elegiac Verses" in his *Pop Poems* (New York: Simon and Schuster, 1967), 16.

All the sound events just referred to, and more, are contained in Schaeffer's *Étude*. Depending on our familiarity with trains, we are able to identify more or less precisely the kinds of circumstances that produced them. But they have been removed from their original context, in an operation similar to that performed by Ronald Gross. The invention of tape recording finally allowed musical composers to "create" their own version of the "objet trouvé." Both Schaeffer and Gross have re-framed their "found texts" in different contexts, and both have used very similar titles to redirect the reception of their texts: both have emphasized the new genre assigned to their material. To render Schaeffer's title as *Railway Study*, as is customary (and literally correct), is to eliminate the generic reference to "étude." Gross makes the generic shift more blatant by his seemingly inappropriate use of "elegiac," which simultaneously draws just as much attention to the provenience of his material as does Schaeffer's direct "chemins de fer." And indeed, no matter how we process either text, we will not be able to forget what it once was, nor is there any reason why we should.

But the "Elegiac Verses" no longer are the newspaper obituary, nor is the *Étude* identical with the tape recordings Schaeffer brought to his studio. Of course, even the sounds captured on Schaeffer's tape are strictly speaking no longer the sounds he heard. They no longer function solely in the present tense. As tape-recorded railway sounds, they have become both a documentary of specific past events and signs representing a class of machinery (as well as a transportation system, a set of social practices, and much more): we cannot tell from the recording how many trains served as sources for the sounds we hear. But the text presented to the class along with the question "Can you hear this as music?" is not quite like the obituary with the new title asking "Can you read me as an elegy?" Schaeffer's text is a montage of railway sounds, and our response will be at least as much affected by the way it is composed as by the sounds and our awareness of their source. Gross offers one kind of text and invites us to read it as a different kind of text; Schaeffer's montage has transformed a bunch of unmotivated sings into a text, but a text whose generic attribution

is altogether ambiguous, at least as long as the title is withheld from the listener and the piece is not heard in a concert situation. As a sequence of railway sounds, each of them signifying more or less clearly identifiable situations or events, it holds out the possibility of being constructed into an acoustic narrative: a new genre in a new medium. Experience has shown that the more our students insist on establishing an indexical relation between the sounds and their original source, the more they will attempt to give the text a meaning by making it into a narrative of a train ride. But the way the text is structured tends to frustrate such attempts.

All students realize that what we hear is not a recording of an uninterrupted linear succession of events. If it were, it would come closer to being a pure “objet trouvé”; but for that very reason, it would also just barely be a text and even less so a narrative. To read it as a text, as a structure of motivated signs, we must receive it as having been constructed by someone for some signifying purpose. This condition would be minimally met if we thought of the recording as intentional and as having a predetermined beginning and ending. If the sounds produced on a train ride from A to Z had been continuously recorded by a stationary microphone placed aboard the train, the result could be received as a representation of that journey; but it would be at best a borderline case of the acoustical equivalent to a “narrative discourse,” as Robert Scholes translates Gérard Genette’s “*récit*.” As an alternative translation Scholes offers the term “text,” which is also Shlomith Rimmon-Kenan’s term for “*récit*.”⁴ Elaborating on Genette’s model in her study of *Narrative Fiction*, Rimmon-Kenan rightly insists that of the three aspects of verbal narrative—story, text, and narration—“the text is the only one directly available to the reader.” “Narration” is “the process of its production”; “story” (“*histoire*”) is a mental construct that results from abstracting the events from

⁴Genette, *Narrative Discourse*, trans. Jane Lewin (Ithaca: Cornell University Press, 1980); Scholes, *Semiotics and Interpretation* (New Haven: Yale University Press, 1982), 92; Rimmon-Kenan, *Narrative Fiction: Contemporary Poetics* (New York: Methuen, 1983), 3.

their disposition in the “*récit*” and reorganizing them in chronological order.⁵ There will always be a difference between story and text even in a strictly linear verbal narrative, for a text will not only leave gaps to be filled by its readers but will also offer more than is needed for them to construct the story. The representation of a train ride by an uninterrupted tape recording is as chronologically dense as any abstraction into a “story” can ever be; the listener’s work does not consist here in abstracting and reorganizing but in imaginatively constructing an image of the whole event in response to the acoustic signs offered by the tape. What impedes this representation from being received as a narrative has to do with the other aspect that is not “directly available to the reader”: narration, which involves a narrator. In the text of a narrative, writes Rimmon-Kenan, “all the items of the narrative content are filtered through some prism or perspective (‘focalizer’),”⁶ and the only way such focalizing is achieved in the kind of tape recording under consideration (which is not Schaeffer’s piece) is through the choice of the microphone and of its fixed location. Where the microphone is placed will, of course, affect the kinds of sounds recorded as well as their quality, but in the absence of any contrast it would require special efforts to make the listener aware of such focalizing. The recording would have to draw attention to itself;⁷ otherwise, listeners might fail to construct an implied narrator, and the simple fact that it is a recording and thus the result of controlled though perhaps minimal manipulation might not be enough for them to receive it as an acoustic narrative. One wonders whether they would receive such a text at all.

Schaeffer’s *Étude* is a very different case, for the recorded sound material, though left undistorted, has been strikingly manipu-

⁵Rimmon-Kenan, 3-4.

⁶Rimmon-Kenan, 3.

⁷This might simply be achieved by carrying the open microphone to different locations during the train ride, as long as it resulted in an audible change of acoustic perspective.

lated: it has been cut up and reorganized, parts of it have been duplicated and used more than once, and a good deal of the original material has obviously been left out. Moreover, it clearly never was the recording of one single sequence of events to begin with. Describing the piece in this manner does not seem to turn it into any better candidate for consideration as narrative than the hypothetical text discussed above. But without further specification, these observations would not necessarily work against such a reading; they could even support it. In fiction, events are rarely narrated in strictly chronological order throughout, and temporal displacements as well as repetitions often refer to the focalizer or to shifts in narrative perspective. We might be dealing with a new art form, the acoustic narrative, but our familiarity with the narrative techniques of comparable art forms would have prepared us for the kind of editing described. A film narrative of a train ride would be composed of many shots and sequences filmed in different locations and from different positions. The construction of Schaeffer's piece has nothing in common, however, with the continuity editing of Hollywood films; instead, it has characteristics that resemble those of a twentieth-century high-literary fictional narrative with its often violent temporal displacement of events, its condensations and ellipses, its flashbacks and repetitions.

Approached as narrative, the piece has gaps. But that is true of all narratives: many discussions analyzing the act of reading (such as Wolfgang Iser's book by that title)⁸ have focused on the reader's activity as a filler of gaps. In the *Étude*, however, connecting and mentally ordering the events and situations signified by the juxtaposed sound fragments into some kind of a coherent narrative representation—the "story"—of a train ride proves difficult; and given this particular sound material, it is hard to imagine what other kind of train narrative besides that of a ride one might try to construct. In contrast to interpreting the structuring devices of fictional

⁸Wolfgang Iser, *Der Akt des Lesens: Theorie ästhetischer Wirkung* (München: W. Fink, 1976); English: *The Act of Reading: A Theory of Aesthetic Response* (Baltimore: John Hopkins University Press, 1978).

narrative or the techniques in filmic narration that suggest alternations between "objective camera" and "subjective camera,"⁹ it is not possible in the *Étude* to rely on shifts in focalization ("point of view" in an earlier terminology) and on changes in the orientation of narrative consciousness (for example, recollection or anticipation) to explain the discontinuities and the juxtapositions of apparently unrelated situations or events. There are aspects that come close: part of the material has clearly been recorded inside a moving train, and other parts on the outside; in some segments the train seems to be stationary, in others getting started or accelerating; in some it is approaching, in others moving away. But the inside/outside distinction does not produce the effect of a change from subjective to objective representation, nor do we connect the different recording positions with attitudes of a narrating consciousness. In fact, it is questionable that one can construct a narrator (as opposed to an implied author/composer) for this piece any more successfully than for the hypothetical text examined above. Nor can we insist on reading into the piece "the continuity of an acting agent," one of the constituents of narrative highlighted by Wendy Steiner in her discussion of "Narrativity in the Work of Roy Lichtenstein":¹⁰ the ambiguity of spatial and temporal relationships and the impossibility of determining in the sequential arrangement of sound events a "before" and "after" in a story line undermine the validity of any decision to hear the sounds as referring to one and the same train (a decision that would not depend on the possibly verifiable real source of the sounds). It also deprives all representational aspects of any sense of the passing of time: there are many signs signifying motion, but that motion remains contained within each segment. It is true that the segment that gets the piece started also refers to a train getting under way; but the effective closing segment that unmistakably signals to us the end of the piece does not signal any

⁹See, e.g., Stephen Heath, *Questions of Cinema* (Bloomington: Indiana University Press, 1981), 45-49.

¹⁰Steiner, in *Space, Time, Image, Sign: Essays on Literature and the Visual Arts* (New York: Lang, 1987), 93.

arrival, so that in retrospect even the opening segment takes on far more of a formal than a narrative function. While the audience may initially be induced to expect the narrative of a train ride, the subsequent discontinuities confuse and ultimately erase such expectations: the listeners will either lose interest or shift their attention to other possibilities of deriving satisfaction from the piece.

Moreover, in dealing with a difficult narrative it is not enough simply to “figure out” the story; the currently dominant interpretive conventions tend to require that the manner of narrating be accounted for in the construction of a satisfactory meaning. Difficulty should not be gratuitous, and disconnectedness should be interpretable. Steiner examines the disjunctions and discontinuities in Lichtenstein’s visual Pop narratives derived from comic book images, and uses them to explain “the paradoxical referentiality of Pop Art.”¹¹ Similar investigations could be made into the visuals of certain music videos, eagerly consumed by many of our students, who have thus become used to seeing highly fragmented visual material collaged and montaged in apparently gratuitous fashion even when some sort of visual narrative seems to be involved. Discontinuity, incommensurability, paradox, along with collage and montage as preferred techniques, have been identified as hallmarks of post-modernist textmaking.¹² But our students, for the most part unfamiliar with theories defining the style of the age, will not usually “naturalize” Schaeffer’s piece by reading it as a post-modernist narrative, nor are they encouraged to do so. Rather, if the experience of music videos is at all adduced to make sense of the piece, they will point out that the videos are given formal continuity by the music and that they often receive a certain narrative coherence from the lyrics. Our students might thus attempt to “complete” Schaeffer’s text by imagining it to be the sound track of some peculiarly organized film about a train or trains, where the

¹¹Steiner, 99.

¹²Most recently by Paul Dever in “Post-Criticism and Paralogy,” unpublished honors thesis (Comparative Literature, Indiana University, 1991) which relies heavily on Jean-François Lyotard, Craig Owens, and Gregory L. Ulmer.

missing visual information might provide greater narrative continuity. Interpreting music or other recorded sounds according to the codes and conventions of movie or television sound tracks is a very common student practice. The mental creation of suitable cinematographic shots and sequences could be a stimulating challenge, and as we shall see, such an exercise might indeed lead to a possibly satisfactory construction of the *Étude* as a representation of extra-musical reality. But it will not result in the invention of a film narrative supported by the sounds of the piece; at least, no student has yet been able to invent one. Certain aspects of its composition tend to resist or escape such efforts.

As the questions posed at the beginning indicate, the students were offered an alternative: to read the piece as “music,” to make “musical” sense of it. What do we hear if we listen to the sounds not as referring to something else, but as they relate to each other?

The first thing mentioned is usually “rhythm”: the listener perceives certain patterns produced, percussion-like, by the wheels passing over the joints of the tracks at specific speeds, patterns that take on a characteristic identity and are then followed, in the next cut-up segment, by contrasting patterns, or patterns somewhat different from the ones heard before. There is also a particular sound quality to each segment, a result of such factors as the train’s location and speed, the placement of the microphone either inside the train and moving with it or at a certain distance outside: listening to the text as self-referential sound we are aware of these factors as we are aware of the instruments giving a musical passage its particular timbre and texture. In some segments there is a noticeable distinction between foreground and background events, and there are changes in dynamics and intensity. Some segments are similar in several of these elements and quite different in others. Most but not all segments have a fairly uniform character internally, but the combinations formed by their juxtaposition are characterized by patterns of contrast or variation or repetition. There are changes in the duration of segments, and larger rhythms are established by a variety of means for the sections of the piece into which they have been combined. These sections are marked off by a very different

sound produced by whistles, and a sequence of whistle sounds also creates a closing effect that knowledgeable students might even call a coda.

It is usually sufficient just to point to these phenomena in order to indicate that, having failed to construct a meaning for the piece by “reading” it as a train narrative, we can give it a meaning in the way we assign meaning to more conventional musical compositions. There is no need to perform a more careful structural analysis of the *Étude* at this stage, for the students have not yet been exposed to any other musical text, nor can they be expected to have the tools to make such analysis (the course has no prerequisites). The question that will occupy the class before passing on to reflect on the original and most radical “readymade,” the urinal exhibited by Marcel Duchamp in 1917 as a visual work of art, signed, dated, and entitled *Fountain*, is whether responding to Schaeffer’s piece as a study in the interrelation of ordered patterns of sound is equal to hearing it as music—which was the question posed at the start. The students are finally told the composer’s name, the title of the piece and some information (derived from Schaeffer’s *Musique concrète*) about the contexts of its production and first presentation to an audience, so that they understand that it is a composition meant to be heard as music—contrary to the text of the “Elegiac Verses” which came into existence as an obituary. But the point here is primarily to make the students aware of their own ideas and feelings about the nature and function of music and where these come from, and to make those who have difficulties with Schaeffer’s composition begin to understand why others might not.

The syllabus brings Schaeffer’s *Étude* once more into view at a much later stage of the course. By that time, students have been more systematically introduced to the study of painting, music and poetry, and short fictional narrative, and their familiarity with musical texts not only includes the compositions used in the introductory section (Cage’s *4’33”*, Xenakis’s *Concret P-H II*, Varèse’s *Ionisation*, a minuet by Bach, Stravinsky’s *Octet for Wind Instruments*, and Schoenberg’s “Peripetie” from *Fünf Orchesterstücke*, in that order), but also Mozart’s *Kleine Nachtmusik*, Berlioz’s

Symphonie fantastique, and Smetana's *Moldau*—the latter two studied in part with a view to exploring musical representation of extra-musical reality in nineteenth-century program music. It is in the latter context that Schaeffer's piece is called up again.

Students have explored parallels and differences in Claude Monet's representation of trains in one of his paintings of the *Gare St.-Lazare* (1877) and in Walt Whitman's rhapsodic poem "To a Locomotive in Winter" (1876); this has led "naturally" to a consideration of Arthur Honegger's "symphonic movement" *Pacific 231*, composed almost five decades later, whose very title refers to a locomotive. There has also been a discussion of the mid-twentieth-century phenomenon of using representations of reality obtained by means of the camera lens as models for writers and painters: specifically, one of Alain Robbe-Grillet's short pieces from *Snapshots* (1962) that reads deceptively like the verbalization of a video recording of people ascending on an escalator is compared with a 1973 painting of a street scene by Richard Estes that looks very much like a photograph because it was painted not directly from life but from a series of slide images. One might assume that a musical text composed entirely of undisguised tape-recorded railway sounds would be linked to the world of trains in ways that appear more closely related to the representational methods of the photo-realist than to those used by Monet, Whitman, and Honegger. However, a careful comparison of Schaeffer's piece with the works of Robbe-Grillet and Estes makes us realize the dissimilarities among the ostensible or actual uses, in the production of verbal, pictorial, and musical texts, of machines capable of recording extra-textual reality: Schaeffer's project is perceived as ultimately very distinct from that of the US-American photo-realist as well as from that of the French *nouveau romancier*, and this distinction consists precisely in his undercutting the representational effects of his material by organizing it into a composition that makes only musical sense. From a different angle, this fuller understanding of Schaeffer's early *musique*

concrète is also brought about through a confrontation of the *Étude* with Honegger's *Pacific 231*.¹³

Having become familiar with some of the means by which Berlioz and Smetana direct the listener's associations toward concretely identifiable aspects of extra-musical reality, students were told that Honegger's composition is even more definitely linked to a specific phenomenon in the real world. That is all the information they were given before listening to the piece in the classroom; they were then asked to identify the phenomenon represented. There tends to be agreement on the piece's "dynamic" and "dramatic" qualities, and many listeners feel that it presents some narrative involving conflict and passing through several episodes. Pressed to be more specific, students make identifications ranging from scenes at a zoo to a battle or a natural disaster. It turns out that providing them with the title tends to mislead most modern-day listeners: they hear music as representing either a naval battle or a hurricane. Not surprisingly, students accustomed to the dissonances of early twentieth-century music tend to have positive associations of energy and power, while those with expectations shaped by the conventions of traditional functional tonality find themselves confronted with acoustic images of a threatening and chaotic world, often linked to the modern metropolis. Many draw again upon conventions governing the sound track of films, possibly the most widely shared set of musical semantic codes—largely a semantics of depiction and narration. But even so, very few listeners associate the sounds with a train.

That situation changes when the title is explained. But understanding the label does not by any means remove all obstacles to receiving the composition as a piece about a train. Most will now hear the beginning as a near-mimetic representation of a locomotive getting under way, and the concluding measures are almost unanimously interpreted as signalling (though less mimetically) that the engine is coming to a halt: exactly the element that is missing in Schaeffer's railway piece to provide at least the basic frame for the

¹³Arthur Honegger, *Pacific 231*, Vanguard Records (VSD 71156, 1966).

construction of a train ride narrative. Is *Pacific 231* then to be read as such a narrative? The answer is not so simple. In the *Étude*, there are segments that allow the recorded train to be placed with near certainty in a particular environment; it is the disjunctions created in juxtaposing the segments that account in part for the failure to construct a coherent narrative. The various “episodes” constituting the body of Honegger’s composition, considered as representations, cannot be unambiguously identified with external stages of a journey through geographical space. At the same time, the composition’s thematic continuities, strung out between musical representations of a locomotive starting and coming to a halt, suggest a representational and indeed a narrative continuity as well. What one may consider is to think of a journey not through geographic but through symbolic space. It is not difficult for the majority of the students to interpret the “episodes” as representing aspects of the locomotive engine which may in turn be read as symbolizing whatever the listener associates with such a machine or believes Honegger’s contemporaries to have associated with it.

Such conclusions are aided by the experience with Whitman’s text, which also vacillates between describing a locomotive in motion, “here” and “now,” observed at times from a distance and then close by, and evoking it on various trips in different locations at different times. The persona whose voice we hear invokes it as “type of the modern—emblem of motion and power—pulse of the continent”:

To a Locomotive in Winter¹⁴

- Thee for my recitative.
 Thee in the driving storm even as now, the snow, the winter-day
 declining,
 Thee in thy panoply, thy measur'd dual throbbing and thy beat
 convulsive.
 Thy black cylindric body, golden brass and silvery steel,
 5 Thy ponderous side-bars, parallel and connecting rods, gyrating,
 shuttling at thy sides,
 Thy metrical, now swelling pant and roar, now tapering in the distance,
 Thy great protruding head-light fix'd in front,
 Thy long, pale, floating vapor-pennants, tinged with delicate purple,
 The dense and murky clouds out-belching from thy smoke-stack,
 10 Thy knitted frame, thy springs and valves, the tremulous twinkle of thy
 wheels,
 Thy train of cars behind, obedient, merrily following,
 Through gale or calm, now swift, now slack, yet steadily careering;
 Type of the modern--emblem of motion and power--pulse of the continent,
 For once come serve the Muse and merge in verse, even as here I see
 thee,
 15 With storm and buffeting gusts of wind and falling snow,
 By day thy warning ringing bell to sound its notes,
 By night thy silent signal lamps to swing.

 Fierce-throated beauty!
 Roll through my chant with all thy lawless music, thy swinging lamps at
 night,
 20 Thy madly-whistled laughter, echoing, rumbling like an earthquake,
 rousing all,
 Law of thyself complete, thine own track firmly holding,
 (No sweetness debonair of tearful harp or glib piano thine,)
- Thy trills of shrieks by rocks and hills return'd,
 Launch'd o'er the prairies wide, across the lakes,
 25 To the free skies unpent and glad and strong.

In its representational aspects the effect of Honegger's piece can be paralleled to the lyrical creation of a visual and auditory image in Whitman's poem. Both have narrative qualities, but they do not tell a story. In the pages of Willy Tappolet's *Arthur Honegger*

¹⁴Walt Whitman, in his *Leaves of Grass*, ed. S. Bradley and H.W. Blodgett (New York: Norton, 1973), 47-72.

(1954) dealing with *Pacific 231*¹⁵ which our students subsequently read in translation, they encounter a quote by the composer that reinforces this view of the piece:

What I sought to portray is not the imitation of the noises of the locomotive, but the representation, by means of a musical construction, of a visual impression and of a physical feeling of well-being.

This representation takes its point of departure in objective observation: the peaceful breathing of the stationary machine, the effort at the start, the gradual increase in speed till it has reached the lyrical state, the expressive power of a railway train with its 300 tons of weight racing madly through the night at a speed of 120 kilometers per hour.

For my model I chose a locomotive of the type 'Pacific,' model no. 231, for heavy express trains. (*Dissonances*, April 1924: 79.)

Tappolet's own descriptive analysis blends purely musical considerations with programmatic references: it reads almost like an ekphrasis or novelistic description in prose. He is at pains to demonstrate that every event in the piece makes perfect musical sense; he thus not only wards off potential attacks by principled opponents of program music, but also avoids a detailed accounting of the piece's referential aspects where denotation is at best ambiguous, especially after the musical train has reached what the composer called its "lyrical state." What unifies Whitman's poem is, for the most part, the enraptured voice of its lyric persona, the constantly repeated, almost idolizing apostrophe of the locomotive, and the use of its sounds as a synecdoche (a part standing for the

¹⁵Willy Tappolet, *Arthur Honegger* (Zürich: n.p., 1954), 76-82; passages trans. from the German by Linda Brust and Mac Henderson, in *Basic Text for Comparative Literature C* 255, ed. Claus Clüver and Mary Ellen Solt (Bloomington: Indiana University Comparative Literature Program, 1989), 246-49.

whole) for the entire engine, which allows the persona's song and the machine to become one: "Roll through my chant with all thy lawless music." The conclusion resembles an apotheosis as we hear the sounds ascend "to the free skies unpent and glad and strong." That is an effect difficult to achieve in music even if one wanted to. Honegger ends his piece differently; but in Tappolet's description the "climax" just before the ending displays a certain affinity to Whitman's conclusion:

The cantus firmus ascends in radiant majesty. . . . The dulled orchestra gains in radiance. Lights seem to flash out. Through the thickening of the mass of sounds and in a steep crescendo the climax is reached. Without transition the *Coda* begins; the 16ths are extended to eighth-triplets, the tempo slows down. The sudden relaxation has the effect of braking. The fourteen measures of the coda, which remind one of the cantus firmus again, lead in steadily loosening relaxation back to the beginning and end in a powerful unison C-sharp.

It would be wrong to confuse the analyst's verbalization with the composition. But his text supports our students' own experience with the piece once they have understood its title and have given up looking for clear denotation and a linear narrative: no matter how much they hear it "as music" and find that it makes "musical sense" (and without Tappolet's help many would be hard pressed at this stage to explain exactly what that means for them), they cannot help hearing it also as a piece about a powerful machine, and the ending impressively confirms that orientation. Indeed, what matters is that Honegger's composition also makes coherent sense as a representation. Its shape appears far from being exclusively determined by strictly musical considerations. And exactly because it is more than simply an imitation of train sounds, because it offers a musical image of the essence of this mighty engine (there are affinities to the expressionist project here), we are also aware that the locomotive is presented as perceived by a consciousness not unlike that of

Whitman's lyric persona. Or rather, to avoid any impression of an essentialist view, once the critically alert listeners receive the composition (also) as a kind of musical portrait of a locomotive, they will construct for it an implied portraitist. Moreover, inasmuch as that portraitist employs narrative elements to achieve his effects, he will be seen to cast the musical machine as a protagonist traveling through symbolic space, having to overcome vaguely definable obstacles and triumphantly reaching that "climax" described by Tappolet. In most of these respects we can draw analogies to Whitman's poem. It might even be rewarding to examine the extent to which the statement about the fusion of the poem's music with the locomotive's applies likewise to *Pacific 231*; but for our interests it is more important to point out that it can *not* be extended to Schaeffer's *Étude*, for that it is a musical piece literally composed entirely of train sounds.

Turning from Honegger's piece to Schaeffer's we realize that all we have noted about the former is in contrast to our earlier observations about the *Étude*, except that in their own individual ways both make sense musically. Students understandably find this situation paradoxical: one composition has an entire symphonic orchestra producing sounds that, once its title and its implications have been understood, it is very hard not to hear as representing some sort of musical train ride (while an uninformed listener may receive them simply as more or less pleasant "classical" or "serious" music); the other tends to set anyone familiar with railway sounds to constructing a train narrative in an effort to give it a meaning, only to realize that it will ultimately make sense only if the codes are switched and the sound events, even though they never lose their identity as train sounds, are received almost as absolute music, more or less pleasant, quite serious and even "classical" once it is fully understood that its principles of composition are very traditional. Hearing the railway study as music entails the loss of narrativity in any referential sense; hearing Honegger's music as a symphonic poem obliges the listener to construct it as some kind of referential narrative. It must be added, though, that especially those who have the hardest time hearing the *Étude* as music claim to have found

another way to make sense of the piece: having learned from Whitman's poem about the possibility of lyric portraiture, a lesson they used to come to terms with the representational aspects of *Pacific 231*, they insist on hearing *Étude aux chemins de fer* as the soundtrack of an as yet unrealized cinematographic railway rhapsody.

In the context of an introductory course in interart studies it is not wise to consider a more difficult question that in a more advanced situation would arise quite logically at this point: the question about the narrativity of (some kinds of) absolute music. It would arise because one might ask about further implications of hearing the *Étude* as a quasi-absolute composition: depending on one's understanding of musical narrativity, a concept that should not necessarily be developed in strict adaptation of verbal narratology, it is conceivable that Schaeffer's piece thus recovers narrative qualities that it was denied by our failed attempts to read it as an acoustic train ride narrative. It is useful for our students, however, to clarify the relation of Schaeffer's *Étude* to some of the other texts studied in the course. Like Duchamp's *Fountain*, Cage's *4'33"*, Xenakis's *Concret P-H II*, and Gross's "Elegiac Verses," it is composed of "found" materials. But in contrast to Duchamp's and Cage's pieces it is indeed composed, in the traditional sense: the recorded sounds have been re-arranged according to structuring principles, principles that resemble those employed in Varèse's *Ionisation* far more than those used by Xenakis, whose composition might otherwise be considered most closely related to Schaeffer's. Once students have accepted it as music, they tend to consider the *Étude* not a very exciting or sophisticated piece; and indeed, from our perspective it may appear a good deal more "primitive" than *Concret P-H II*, and it is necessary to remind students that the inventors are not necessarily also the masters of a concept and a technique, and that a decade of advancements in electronics creates entirely new possibilities.

It is more important, however, to realize that Xenakis operates within a different aesthetic; and yet, within a larger perspective

Varèse, Schaeffer, and Xenakis can all be seen to represent an approach to textmaking and to producing “art” that is quite distinct from that implied by Duchamp, Cage and Gross. Had Schaeffer indeed offered an uncut recording of railway sounds (a possibility we considered earlier), such a “text” would have come close to being a pure “objet trouvé,” and an invitation to listen to it as music would thus have very different aesthetic implications from the piece he actually produced. By creating a montage of railway sounds that undercuts its referential qualities and becomes recognizable as obeying traditional concerns and principles of musical composition, Schaeffer (like Varèse and also like Xenakis) still operates in accordance with the proclamation with which a young John Cage concluded “The Future of Music: Credo,” written in 1937 and assigned to our students earlier in the course:¹⁶

THE PRINCIPLE OF FORM WILL BE OUR ONLY
CONSTANT CONNECTION WITH THE PAST.
ALTHOUGH THE GREAT FORM OF THE FU-
TURE WILL NOT BE AS IT WAS IN THE PAST, AT
ONE TIME THE FUGUE AND AT ANOTHER THE
SONATA, IT WILL BE RELATED TO THESE AS
THEY ARE TO EACH OTHER: . . . THROUGH
THE PRINCIPLE OF ORGANIZATION OR MAN’S
COMMON ABILITY TO THINK.

Cage’s 4’33” of 1952 still relies heavily on “man’s common ability to think,” but if it relates to earlier forms of musical composition “through the principle of organization” such principles have been enlarged almost to the point of evanescence. Like Duchamp’s *Fountain* and also Gross’s “Elegiac Verses,” 4’33” is much better understood as an example of “inferential art,” in accordance with

¹⁶John Cage, “The Future of Music: Credo,” in his *Silence* (Middletown, CT: Wesleyan University Press, 1969), 6.

Richard Kostelanetz's definition of the term he created for Cage's piece.¹⁷

In a sequel to the introductory course, which deals with aspects of the interrelations of literature, painting, and music from the 1870s to 1950, students could be shown that in its employment of non-conventional sounds the *Étude* continues a tradition that reaches back beyond Varèse into the earliest decades of this century. In circumscribing a space for Honegger's *Pacific 231* Tappolet correctly insists that it

has nothing to do with the tone-montages of the Italian "Bruitists" Russolo and Marinetti, ca. 1912; nor with the planned noise-instruments of sirens, typewriters, airplanes, and dynamos in *Parade* by Satie, Cocteau, and Picasso; and just as little with so-called "musique concrète."

The Italian Futurists as well as Satie can, however, be placed in the ancestral line leading to Schaeffer. Yet it is even more intriguing to explore the links his *Étude* may have to another early twentieth-century phenomenon that initially took shape in the visual arts but has had profound repercussions in other arts: to cubism, both in its analytical and in its synthetic phase. These links may depend more on the way the piece is received than on the way it was conceived by the composer—a distinction that, like the links, will not be further elaborated here, since our students in the introductory course cannot make it. Suffice it to say that hearing the piece as a musical equivalent to pictorial cubism rules out narrativity as motivating the overall composition, while it may help us understand and accept the relationship of its representational to its purely musical aspects. The viewer of an analytical-cubist painting is always tempted to recompose the visual sign into an image of the extra-pictorial subject and is always frustrated in the attempt: this is

¹⁷Richard Kostelanetz, "Inferential Art," in *John Cage* (New York: Praeger, 1970), 105-09.

likewise the experience of Schaeffer's listener. In both instances a satisfactory meaning can only be found in reversing the direction and moving from original subject to resulting text. However, all representation in the painting is still achieved by the visual artist's conventional physical media; it is only in the collage of synthetic cubism that extra-artistic objects, the equivalents to recorded sounds, are incorporated in the image. Yet collage is not montage. More importantly, even decisively, original cubist art of either phase never entirely removed all referential and representational implications—recent studies, disagreeing with all too formalist interpretations of cubist art, have insisted on the importance, for example, of the actual text of newspaper clippings in a collage.¹⁸ Yet while it is impossible not to think of trains when listening to Schaeffer's *Étude*, nothing in it tells us unmistakably that it also makes a statement about *chemins de fer* except that even such mundane sounds as the noises made by railway trains can be transformed into pure music, a music that is, unlike that of Whitman's locomotive, far from "lawless."

¹⁸See, e.g., Rosalind E. Krauss ("In the Name of Picasso," *The Originality of the Avant-Garde and Other Modernist Myths* [Cambridge, MA: MIT Press, 1985], 23-40), who opposes such readings; the debate continues.