

**LISTENING TO REPETITIVE MUSIC:  
REICH, FELDMAN, ANDRIESEN, AUTECHRE**

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This essay and the composition *Jangle*  
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# Abstract

This essay offers my personal responses to pieces of repetitive music by composers Steve Reich, Morton Feldman, Louis Andriessen and the electronica duo Autechre. The essay engages issues such as the disorienting effect of repetition, the role of repetition in shaping large-scale continuity, and the surprising fact that literally repeating patterns may sound different as they continue. These issues, and others, are considered in the course of reporting and investigating my listening experiences, through detailed analyses of specific musical passages.

I elaborate a notion of *meditative* listening, which stands in contrast to *narrative* listening. A narrative listener follows a developing musical story, understands how current events emerge from previous ones, and sometimes makes predictions about future events. A meditative listener focuses on the present moment, appreciating its qualities without thinking about the connection of this moment to the surrounding music. I show how Feldman's *Piano and String Quartet* encourages meditative listening, while making narrative listening a somewhat frustrating experience. By contrast, I claim that narrative listening is ultimately appropriate for Andriessen's *De Materie, Part IV*, even though it begins, just as the Feldman piece does, with a series of repeating gestures.

While analyzing several selections from Autechre's *Chiastic Slide* and *Tri Repetae*, I explore my perceptions of foreground and background repetitive layers. In Reich's early tape-loop piece, *Come Out*, ambiguity arises between actual change in a repeating pattern and change taking place only in the mind of a listener.

# Acknowledgments

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# Chapter 1

## Introduction

The world is full of repetitive sounds, both natural and artificial. On my morning walk, I came upon a three-way quarrel between a crow, a starling and a mockingbird, all uneasily occupying the same pine tree. Their calls formed a lively hocket, with each bird contributing a distinctive cry. The stalemate lasted for minutes. Three repetitive layers, together projecting a ragged pulse — it wasn't hard to hear it as music.

On the way to the car repair shop, I walked by an impound lot. I was in a hurry, my feet stomping out a steady beat. Suddenly, a car alarm set off, lights flashing, horn blasting. The horn pulse fought the rhythm of my feet. A nearby construction site added a layer of insistent clanging in another tempo. I kept up my pace, but felt the pressure of these other sounds. Together we made a rich musical texture, woven from repetitive strands, tangled in cross rhythm. Then I turned the corner, and it all faded.

It's no wonder I remember these events, because much of the music that interests me centers around short, repeated patterns. As a listener, I like to focus on a sound, hearing it over and over again as its color changes. I like to follow the interaction of several repeating sounds, feeling the pulse they make and sensing the tensions between them — like listening to those birds.

As a composer, I've noticed my music becoming ever more repetitive. Perhaps connecting again with my earliest experiences of music — as a rock drummer and

guitarist — has played a role, along with questioning an assumption I once held about composition: that it's good to avoid saying the same thing twice. Whatever the reason, much of the music I like to listen to, as well as the music I make now, is often strongly, even obsessively, repetitive.

Take the beginning of Louis Andriessen's *De Materie*: one chordal strike, repeated well over a hundred times. It's puzzling at first, as if the opening of the *Eroica* took a wrong turn. But after I accept the premise, I begin to listen differently. I savor the resonance between the chords, where pitches emerge that were covered by more prominent ones in the attack. I appreciate the wonderfully jagged rhythm without worrying too much about where the passage is going. When finally the chord changes to another, it sounds momentous — more so than if the first chord had not formed the world of the piece for so long.

Such music can provoke interesting questions. Some of these questions are the sort that composers ask themselves while working. How long can this passage continue without losing a listener's interest? After establishing a repetitive texture that feeds off itself, how do I get out of it? How do I move on to something else? How do I handle the projection of a pulse while repeating these patterns? Do I want this repetitive passage to lead somewhere, or should it linger without suggesting a destination? Other questions are broader. These might occur to listeners as well as to composers. What does it mean when music goes on and on without changing much? What should I listen for when there doesn't seem to be anything new happening? Does my perception of repetitive music change as the piece goes on? Would I feel differently about this music if I were dancing rather than sitting still? Is it important for me to follow along, always knowing where I am? Or am I supposed to get lost?

It is primarily the second group of questions, and others like them, that I consider in this essay. I approach them via my own experience as a listener, typically

by asking myself what I notice about the different experiences I have while listening to some interesting repetitive pieces. I'm not trying to give definitive answers to these questions, but rather to let the questions stir up thoughts about the music and my relation to it. The result is a series of personal responses to individual pieces: Steve Reich's early tape-loop etude, *Come Out*; a late work of Morton Feldman, *Piano and String Quartet*; some music from Andriessen's *De Materie*; and electronic dance music by the English duo Autechre. My own piece for two pianos, *Jangle*, is the composition portion of this dissertation. While not discussed here, many aspects of that piece directly engage the issues mentioned above.

\* \* \*

Most of the music I've chosen to discuss in detail is not thoroughly repetitive: the repetition is non-literal, or some parts of the texture repeat while others do not. With the exception of the Reich, these pieces are not from the minimalist canon. So let's start instead with an unambiguous case. Probably the most stark example of repetitive music is an early work by La Monte Young: *Arabic Numeral (Any Integer)*, written in 1960.<sup>1</sup> This piece consists of nothing but a single, loud cluster chord on a piano (or stroke on a gong), played evenly for many iterations. The performer — or performers, since it is also possible for an ensemble to do the piece — decides in advance how many iterations to play, and this number forms the title. For example, one of the versions that has been performed is called *997 (to Henry Flynt)*.<sup>2</sup>

A piece such as this cannot be developmental in the familiar sense, because the sound does not change appreciably over the course of the piece, which might last twenty minutes or more. Instead, it is the *listener* who changes, as she becomes

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<sup>1</sup>William Duckworth, *Talking Music* (New York: Schirmer Books, 1995), 238–9.

<sup>2</sup>Program note on *Arabic Numeral* for a concert at the Diapason Gallery in New York, 2001, <<http://www.diapasongallery.org/archive/01.06.24.html>>.

engrossed in the sound and begins to hear in a different way. Young refers to this sort of listening experience as “getting inside the sound.”

Sometimes when I was making a long sound, I began to notice I was looking at the dancers and the room from the sound instead of hearing the sound from some position in the room. I began to feel the parts and motions of the sound more, and I began to see how each sound was its own world and that this world was only similar to our world in that we experienced it through our own bodies, that is, in our own terms. I could see that sounds and all the other things in the world were just as important as human beings and that if we could to some degree give ourselves up to them, the sounds and other things that is, we enjoyed the possibility of learning something new. By giving ourselves up to them, I mean getting inside of them to some extent so that we can experience another world. This is not so easily explained but more easily experienced.<sup>3</sup>

For Young, sound can be experienced in such a way that it is not felt to be separate from the listener or sound-maker. The person can enter the “world” of the sound and is then even able to observe others “from [the perspective of] the sound.” *Arabic Numeral* does not present one long sound, such as the one Young describes above. It presents one short sound, repeated incessantly. But the effect is similar: the piece invites a listener to concentrate on the sound, to explore its qualities, to make it a part of himself, to *incorporate* the sound. This approach is different from a more familiar listening experience, in which you follow the progress of a piece, as if watching a film, and therefore cannot linger for long in one spot.

*Arabic Numeral* makes for a listening experience that is much different from hearing the opening of Andriessen’s *De Materie* (briefly described earlier), despite the presence of an obsessively repeating sound in both pieces. In the Andriessen passage, the repetition begins to accelerate after a while, and it becomes clear that some sort of change is likely, even though my primary focus as a listener is on the sound qualities. The drawn-out approach to the chord change that finally arrives even has something in common with the suspenseful, temporizing “retransition”

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<sup>3</sup>La Monte Young, “Lecture 1960,” in *Selected Writings*, ed. La Monte Young and Marian Zazeela (Munich: Heiner Friedrich, 1969), 74.

passages that we hear in some classical pieces, such as Beethoven's "Waldstein" Sonata: the tense chordal attacks finally yield to another chord, and then I naturally feel a sense of relief. All that is very unlike *Arabic Numeral*, in which time suspends and most of the musical changes happen in the mind of the listener. It is these changes in perception that interest me, as I think about my listening experiences with the repetitive pieces I've chosen to discuss.

\*            \*            \*

In Samuel Beckett's early novel, *Watt*, we read the following description of Mr. Knott pacing in his room.

Here he stood. Here he sat. Here he knelt. Here he lay. Here he moved, to and fro, from the door to the window, from the window to the door; from the window to the door, from the door to the window; from the fire to the bed, from the bed to the fire; from the bed to the fire, from the fire to the bed; from the door to the fire, from the fire to the door; from the fire to the door, from the door to the fire; from the window to the bed, from the bed to the window; from the bed to the window, from the window to the bed; from the fire to the window, from the window to the fire; from the window to the fire, from the fire to the window; from the bed to the door, from the door to the bed; from the door to the bed, from the bed to the door; from the door to the window, from the window to the fire; from the fire to the window, from the window to the door; from the window to the door, from the door to the bed;<sup>4</sup>

And so on, for another fifteen lines. What are we to make of this? It's an exhaustive account, though not in terms of information provided about Mr. Knott. We don't really learn more about Mr. Knott as the passage goes on. But the systematic symmetries — the absurd consideration of all permutations of window, door, fire and bed — give one the impression that Mr. Knott (or perhaps the narrator, Watt) suffers from obsessive-compulsive disorder.

The passage might be hard to take for many readers. It can be aggravating to continue reading once you understand the idea. It requires real concentration to

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<sup>4</sup>Samuel Beckett, *Watt* (London: Calder & Boyars, 1972), 203–4.

avoid skipping lines by mistake. After the first few sentences, each phrase has the same structure, and there are only seven different words, so the eye begins to wander. It's easy to get lost. But, if you can move beyond these impediments, reading this description can have a wonderfully hypnotic effect.

Let's look at another literary example, an excerpt from Gertrude Stein's brief "portrait" of Matisse.

This one was one very many were knowing some and very many were glad to meet him, very many sometimes listened to him, some listened to him very often, there were some who listened to him, and he talked then and he told them then that certainly he had been one suffering and he was then being one trying to be certain that he was wrong in doing what he was doing and he had come then to be certain that he never would be certain that he was doing what it was wrong for him to be doing then and he was suffering then and he was certain that he would be one doing what he was doing and he was certain that he should be one doing what he was doing and he was certain that he would always be one suffering and this then made him certain this, that he would always be one being suffering, this made him certain that he was expressing something being struggling and certainly very many were quite certain that he was greatly expressing something being struggling.<sup>5</sup>

This text is certainly repetitive. At least, that's the impression I have while reading it, created in part by the multiple appearances of words like "certain," "one," "doing," "suffering," and by recurrences of several groups of words, such as "doing what he was doing" and "expressing something being struggling." But there are no literal repetitions of entire phrases. Stein claimed that she was not engaged in repetition, but rather in continually changing the emphasis within a series of similar statements.<sup>6</sup> The run-on character of the writing, combined with this pervasive non-literal repetition, creates some of the disorienting effect that I experience with the Beckett. But there is a major difference. The Beckett excerpt doesn't change significantly as it goes on: it recycles endlessly its small repertory of literally repeated

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<sup>5</sup>Gertrude Stein, "Matisse," in *Writings and Lectures 1909–1945*, ed. Patricia Meyerowitz (Penguin Books, 1974), 211.

<sup>6</sup>Stein, "Portraits and Repetition," in *Writings and Lectures 1909–1945*, 102 and 107.

prepositional phrases, with only a minimal degree of acceleration near the end. By contrast, the Stein text moves slowly from “many were knowing” and “some listened to him” to “he was expressing something being struggling.” In other words, it is *narrative* in the sense that it moves along a definite path from one set of ideas to another, while telling us something about its subject.<sup>7</sup>

The Beckett passage is somehow frozen in time, offering a break from the narrative that surrounds it, and encouraging me to enter a nearly trance-like state. Reading this feels different from reading the Stein, which, despite the convoluted repetition, keeps me wondering where the train of thought is leading, how the passage will evolve. Two repetitive texts, two contrasting experiences — this parallels what I will have to say about some of the music I explore in this essay. For example, part of Feldman’s *Piano and String Quartet* leads me to listen in a way that I will call *meditative*: I focus on the sound of the moment, not on the continuity or narrative of the passage. Andriessen’s *De Materie, Part IV* — a piece that, like the Feldman, opens with a long series of non-literally repetitive short gestures — has a different effect on me, because it never departs for very long from its linear narrative. In a limited sense, then, the Feldman is like the Beckett, and the Andriessen is like the Stein.

As I reflect on my listening experiences with this music, I discover that my way of listening can change during the course of a piece. The Feldman may reach a point when my listening is meditative, but when the piece begins, my listening is narrative. In other words, I begin by believing it’s important to follow the events as a sequence, like beads on a thread; then this attitude fades as the events take on a different, less goal-seeking character. The process of change in my way of listening as the piece unfolds is mysterious, but I try to identify the features of the music that

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<sup>7</sup>I use the term *narrative* not with its literary theory sense, but with its simple informal meaning of “telling a story.”

encourage the change. In Reich's *Come Out*, my listening alters, but not in a way that engages the question of whether the piece seems narrative. Instead, paying close attention to the unceasing literal repetition of a spoken phrase leads me to notice more and more features of the enveloping sound as the piece continues. In some of the Autechre pieces I listen to, I become so accustomed to a prominent repetitive part, such as a drum track, that I begin to take that part for granted and listen closely to softer, more variable layers of the texture, with the result that the drum track has a different presence. In both the Reich and Autechre pieces, then, I listen to a repetitive part whose sound seems to change as it goes on.

In the analyses that follow, I start from a listening experience in which I am attentive to details. Then I try to illuminate the character of the experience and show how the details contribute to it. When a score is available, as it is for the Andriessen and Feldman, I use it mainly to confirm what I glean from my listening. My overarching goal is to convey my experience and to contrast the relationship I have to one piece with the relationship I have to another. In the process, I hope to learn about some varying ways that extensive repetition can figure in music, and I hope that these lessons will find their way into my own music.

## Chapter 2

### Reich: Come Out

When I was a child, I used to play a little word game. I'd pick a word and say it slowly, over and over again: "ar-ma-dil-lo, ar-ma-dil-lo, ar-ma-dil-lo, ..." I knew what the word meant, and I was conscious of that as I began to repeat it. But as I repeated it, the word seemed to shed its meaning. It began to sound strange and interesting. I became more aware of its sound than of its meaning, and I noticed how the sound changed as I continued. If I chose an appropriate word, its boundaries would dissolve: the end of one iteration would flow into the beginning of the next. After a while I'd stop. Then it was funny to make the word normal again — to say it quickly and think only of its meaning.<sup>1</sup>

Listening to repetitive music can be like playing this word game. If you hear a pattern by itself, it sounds one way. If you hear it repeated continuously, it sounds another way. Think of something simple, like a drum machine pattern. If the pattern is looping, of course it sounds different than if you heard it just once by itself. You hear interactions across the boundary between two instances of the pattern. A momentum develops; it carries you along. And, just as in the word game, the pattern may begin to sound different as the repetition goes on, even if

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<sup>1</sup>Michel Chion touches on this kind of experience in his book about film sound, *Audio-vision: Sound on Screen* (New York: Columbia University Press, 1994). He reformulates the "modes of listening" postulated by Pierre Schaeffer to include *semantic listening*, in which we focus on the information conveyed by spoken (or sung) language, and *reduced listening*, in which we focus "on the traits of the sound itself, independent of its cause and of its meaning" (Chion, 29). My word game involves shifting between these two modes of listening.

the pattern is always the same. As you become more familiar with the pattern, you might notice aspects of it that you hadn't before. There might be a buzzing sound that was covered up by the more prominent percussive hits, and after a while you find that the buzzing seems more conspicuous than the hits. It's as if the mind wants to hear something new, and so it tries to hear the same pattern in a new way.

Steve Reich's early tape-loop piece, *Come Out*, illustrates these ideas.<sup>2</sup> In one respect it actually resembles the word game closely: we hear a short phrase spoken over and over, and, as it repeats, it begins to sound different. The person speaking is a teenager accused of murder, and later acquitted, during the Harlem riots of 1964. He describes his attempt to be taken to the hospital so as to avoid further beating by the police. To convince the police that he is in bad enough shape to go to the hospital, he reports, "I had to, like, open the bruise up and let some of the bruise blood come out to show them." We hear this statement three times, with intervening silence. It has the raw sound of speech from a documentary; it's disturbing to hear, especially if you know the story. Afterwards, we hear only the phrase "come out to show them," looping incessantly in the rhythm captured by my transcription in Figure 2.1. But this notation is too tidy. The "measure" is not

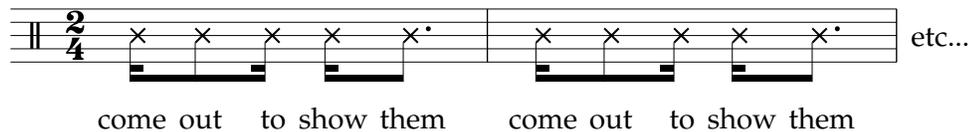
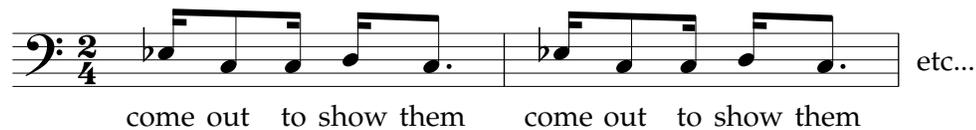


Figure 2.1: *Come Out*, beginning of tape loop

so long; it's clipped just before the end. This gives the repeating pattern an urgent, off-balance feel that propels the listener uneasily forward.

<sup>2</sup>Available on compact disc, *Steve Reich: Early Works* (Elektra/Nonesuch 9 79169-2).

While the meaning of the boy's full statement lingers, this rhythmic presentation of the extracted phrase draws my attention to the sonic aspects of the speech, and away from its semantic characteristics. As I absorb the sound of this phrase, I begin to notice several things about it that escaped me when hearing it as part of the full statement. First, the phrase has a melodic contour that touches three distinct pitches (Figure 2.2). As the phrase repeats, these pitches sound more and



different speeds.) The result of this ever-widening discrepancy is that I begin to hear a subtle echo of the looped speech, and the echo grows more pronounced over the course of a few minutes. At first there's no echo; the sound seems to come only from the center-right of the stereo field. This is due to the *precedence effect*,<sup>3</sup> whereby we sense the location of a sound source based partly on the difference between the times that the wavefront reaches each of our ears. Since the right-channel tape loop starts slightly ahead of the identical left-channel loop, the sound source seems to be located towards my right.<sup>4</sup> As the delay between the two channels increases, the channels begin to split apart, and I hear, towards my left, a blurry reflection of the main tape-loop sound. This grows more distinct, until I can tell that the left side mimics the right, and that the right side always seems to pull ahead of the left. By the end of the first section (about 2:50), the time interval of the echo stretches to an eighth note, causing the two channels to form an interlocking rhythm that articulates every sixteenth note (Figure 2.3). At this point, the music

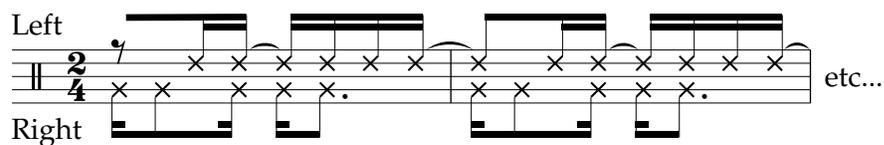


Figure 2.3: *Come Out*, end of first section

suddenly shifts: Reich records the two hocketing parts onto one tape loop, and the process begins anew.

Earlier I claimed that the “come out to show them” pattern repeats literally, and that I hear it differently as it continues. Now we know that it’s more complicated.

<sup>3</sup>Charles Dodge and Thomas A. Jerse, *Computer Music: Synthesis, Composition, and Performance* (New York: Schirmer, 1997), 311.

<sup>4</sup>Viewing the waveform with a computer, I determined that the right channel starts about 6 milliseconds earlier than the left channel. Confusingly, the location of the sound source seems to move wildly during the first few loops, because of amplitude changes and some sort of equipment glitch. But then it settles into a smooth trajectory, as the time delay between channels begins to increase gradually.

Though the pattern itself doesn't change, the temporal relationship between the two tape loops does, and this certainly affects the sound. But the changes in sound contributed by the drifting sync of the tape loops are not the ones I attribute to my growing familiarity with the repeated pattern: my awareness of the pitches of the speech, the sibilance of "show," and so on. I would hear these changes even if there were only one tape loop. The two kinds of change — actual changes in sound (the echo), and changes only in my perception of the sound (the growing sibilance, etc.) — work together nicely. While listening to the first minute or so (as opposed to analyzing it later), I don't readily distinguish between the two kinds of change. That is, at first I'm not sure whether a perceptual change is caused by an actual change. Is "show" really becoming more sibilant, or is it just me? Is the pattern really beginning to echo, or is it just me? This ambiguity owes much to the gradual, almost imperceptible, rate of the tape-loop sync-drifting process. Once a distinct echo fully develops, it's almost as if the actual changes have come about as an extension or enhancement of what I was already doing as a listener: hearing a literally repeated pattern and imagining that its sound slowly changes.

## Chapter 3

### Feldman: Piano and String Quartet

There's a remarkable spot about five minutes into Feldman's *Piano and String Quartet*. After a long series of simple, detached arpeggios, two of these gestures merge to form a slightly longer one. Hearing this moment is like doing a double take: on first glance, its significance is not apparent. Only after the moment has passed do I realize how extraordinary it is. It's special not just because of its sound, but because the event makes me understand that my listening attitude toward the entire passage has changed. As the piece begins, I listen in a particular way that seems appropriate to the characteristics of the opening music. But during the course of a few minutes, that way of listening yields to another, without my being fully aware of the change. I'll discuss this phenomenon more completely, but first let me set the stage with some description of the music.<sup>1</sup>

The piece begins with a delicate gesture: an ascending arpeggio on the piano, played with a sustained dyad on the viola and cello (Figure 3.1). The gesture is understated. Everyone plays softly; the arpeggio is light and relatively high; the strings play muted harmonics. Then the strings trail off, leaving only the resonance of the piano chord. (The pedal is down always.) So the total gesture has two stages: rippling onset with piano and strings sustaining, then resonance in piano while

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<sup>1</sup>While discussing the music, I refer to the CD recording, *Morton Feldman: Piano and String Quartet* (Elektra/Nonesuch 7559-79320-2), and to the score, *Piano and String Quartet* (London: Universal Edition, 1985).

Figure 3.1: Piano and String Quartet, mm. 1–2

strings rest. The cessation of strings creates a halting effect, as if they have more to say, but must pause to think about it.

The music unfolds as an uninterrupted series of these gestures. The pace is leisurely. At first, though I feel no sense of urgency, I detect a kind of tension. The simple gestures sound incomplete to me — as if they soon should join, without the intervening silence in the strings, to form a larger, more fulfilling phrase (Figure 3.2). It’s not hard to imagine that the first few gestures are failed attempts to say something, alternative openings of an abandoned sentence. The piano repeats

Figure 3.2: Piano and String Quartet, mm. 1–9

its chord; the strings restate their C–D $\flat$  dyad with changes in timbre and added pitches — searching for the right words.

But this impression fades, because that larger, more fulfilling phrase never takes shape. After a while, I stop expecting this kind of phrasing. My attitude toward the music changes: instead of waiting for something more complete to happen, I focus on the color of the gestures, each one a different shade from the last. Sometimes the contrast between them is subtle — just a slight difference in instrumentation, such as the replacement of a viola harmonic with a violin non-harmonic note (Figure 3.3). Now and then the contrast is more striking, such as new piano and string pitches (Figure 3.4). But these relatively extensive changes do not sound like re-

Figure 3.3: *Piano and String Quartet*, mm. 41–44

Figure 3.4: *Piano and String Quartet*, mm. 45–48

sponses or ways of satisfying momentum. The piece doesn't push forward; it isn't headed anywhere in particular. So I follow the music in a more relaxed way, carried along by the gentle rhythm of gestures established from the outset.

The music goes on like this for what seems like a long time. But then it happens: I hear the familiar arpeggio and chordal sustain; I wait for the strings to stop — and a fresh arpeggio fills the expected void (mm. 76–77 in Figure 3.5). This new

The figure shows a musical score for measures 74 through 78. The Piano (Pno.) part is in the top staff, showing a series of arpeggiated chords in measures 74, 76, and 77. The String Quartet (Vn. I, Vn. II, Va., Vc.) parts are in the bottom four staves. In measure 76, the strings play a two-note line. In measure 77, the strings play a chord, which is annotated with the text "(This chord comes 'too early.')." The Piano part continues with a similar arpeggiated pattern in measure 78.

Figure 3.5: *Piano and String Quartet*, mm. 74–78

chord arrives too early, precluding the normal completion of the previous gesture: the unaccompanied piano resonance. There's no chance for the strings to rest now. They join the piano, so that I hear a two-note line in the string parts for the first time. The early-arriving chord comes without much build-up or fanfare, so that I almost don't realize it's happened. But in the context of such constrained behavior — the same gesture repeated for several minutes — even a subtle shift can have a clear impact.

I'm tempted to claim that the collapse of two gestures to form a longer phrase responds to the incompleteness I sensed in the opening. I expected something larger to emerge after the false starts of the first few gestures. They needed to follow one another more closely, so as to create a more fulfilling phrase. And now

they have. So this surprising spot is the goal of all the preceding music, whose incompleteness motivates it.

But this explanation doesn't fit my experience well. By the time I reach this spot, I've abandoned any expectation of longer phrases. I've stopped feeling the need for them. The succession of simple gestures doesn't aim toward a climactic arrival. It doesn't build momentum, leading me to anticipate an event that will release the tension of incomplete gestures. This music isn't about all that.

\* \* \*

When do I change my way of listening, exactly? It's probably different each time I hear the piece, but I'll speculate on the features of the music that might be responsible for the shift. I notice that the change isn't sudden: there's not one event that turns me around. And the change isn't linear: after a few minutes, my listening attitude shifts back and forth for a while, responding to the different kinds of sound and movement I hear.

I shouldn't overlay the notion that, while listening to the opening measures, I expect some dramatic buildup and arrival — this isn't a Beethoven symphony. But there is something to that expectation, as long as we think in more subtle terms. The opening does seem to promise growth of a particular sort, in the context of sounds that have gentle qualities.

Earlier I characterized the first few measures as "failed attempts to say something." The repeated gestures have a searching quality, due not only to the halting rhythm and its sense of incompleteness, but also to the sounds. Just hearing the piano play the same chord repeatedly makes it possible for the strings, with their varying chords, to sound as if they're trying to find the right way to fit with the piano's highly chromatic chord. They do so by intensifying their initial statement,

leading me to believe that they're moving forward to some undetermined destination. Figure 3.6 tracks some of the details along the way.

- m. 3  $D\flat$  played by violin II with vibrato, instead of as a light cello harmonic.
- m. 5 Violin I adds high B, creating with the other strings a chromatic trichord (012). Low C now played with vibrato (violin II) instead of as a natural harmonic (viola).
- m. 7 Cello adds low D, making a chromatic tetrachord (0123) and deepening the string sound.
- m. 9 The low and high ends drop out, leaving a much thinner-sounding half-step.

Figure 3.6: *Piano and String Quartet*, mm. 1–9

Until m. 9, each chord changes in a way that heightens the sense of growth. And even in m. 9, despite the drop-out, the situation still carries some suspense, since the viola's D threatens to displace the  $D\flat$  that has occupied that register in every previous chord. Together, they make the first minor second of the piece, which helps to maintain the intensity in the absence of cello and first violin. So even though the halting rhythm keeps the opening from sounding like an energetic move forward, it still encourages me to listen for an arrival.

Does the next string dyad sound like an arrival? The low major ninth in the viola and cello (Figure 3.7, m. 11) has a restful quality, in contrast to the previous, minor ninth-laden string chords, which sound more unstable. And the presence

Figure 3.7: *Piano and String Quartet*, mm. 7–12

of D without  $D\flat$  could make this moment seem like a sort of cadence, in which D manages to edge out  $D\flat$  completely. But the abandonment of the higher register leads me to hear the chord as an interruption, rather than a resolution.

The next few measures do more to extend the sense of this low chord than they do to get us back on track (Figure 3.8). The cello's A harmonic (m. 13) provides

Figure 3.8: *Piano and String Quartet*, mm. 11–18

a third partial (i.e., perfect twelfth) reinforcement of the viola's D, and this binds the two together. The A is the first string note to appear by itself; it sounds even more static than the low dyad before it. The D at the bottom edge of the glassy

string chord that follows (m. 15) is a more overt reinforcement of the last D, and the violin's thin A harmonic (m. 17) continues this by echoing the cello's A. The strings are just lingering over the interruption — extending the low major ninth by overtone expansion — rather than engaging again with the onward progress of the opening.

Despite this stall in the action, I'm still so fresh from following the opening progression that I don't slip out of my initial listening mode of expectation. The next string chord (Figure 3.9, m. 19) promises a turn from the stasis: its A $\flat$  displaces the well-established A. Its thicker, mid-register sound and reinstatement of mid-

Figure 3.9: *Piano and String Quartet*, mm. 17–22

dle C recall the opening energy, making me think that something new is about to happen, although I have no idea what it could be. The next chord (m. 21) delivers on the promise in a striking way: not only do the strings reach higher to a four-part chord that includes new pitches, but the piano changes finally to a different chord. I had grown accustomed to the first piano chord — I stopped listening to it carefully while focusing on the strings — so the chord change makes an impact. In light of this, it's surprising to discover that the second piano chord merely re-

arranges the pitch classes of the first one. In the piano's static harmonic context, even a change in registration can sound like a big event.

The new piano-and-string chord (Figure 3.10, m. 21) seems like the beginning of a reinvigorated motion, partly because the high non-harmonic notes in the first violin and viola ( $G\flat$ ,  $F$ ) sound more bold than previous high string notes, which were harmonics. The next attack has all the strings slipping down by a half step,

The figure shows a musical score for measures 21-24. The Piano part (Pno.) is in 3/4 time and has a static chord of D#-G-F# in measures 21, 22, 23, and 24. The String Quartet parts (Vn. I, Vn. II, Va., Vc.) are in 3/4 time. In measure 21, the strings play a core dyad of C/Db. In measure 23, the strings play a core dyad of B/C, which is a half step lower than the previous one. Annotations include '(half step apart)' between the piano and string parts in measure 21, and '(down by half step)' with an arrow pointing from the string part in measure 22 to measure 23.

Figure 3.10: *Piano and String Quartet*, mm. 21–24

while the piano stays put (m. 23). This might be seen as a different take on the opening. There, the strings added notes to a stationary core dyad ( $C/D\flat$ ); here, they peel off from the piano chord. (The string's  $D-G\flat-F$  in the first chord rubs against the piano's  $D\sharp-G-F\sharp$  a half step higher, and the resulting tension seems to push the strings down a half step for their next chord.<sup>2</sup>) In both cases the strings change their notes against a static piano chord. This gives an impression of mild restlessness or dissatisfaction with the current situation, on the part of the strings, and an eagerness to move on to something else. Of course, at this slow rate of

<sup>2</sup>If this description of pitch behavior sounds suspiciously like what happens in tonal music, it's because I believe that the stepwise displacement and sense of resolution that are important in tonal music can affect my hearing of non-tonal music. In this Feldman passage, the "rubbing" of one pitch against another does not imply a scalar context or a confirmation of tonal center, but it does have some of the emotional effect that such a move could have in tonal music.

unfolding, “eagerness” may overstate the feeling, but still some of that sense is present for me.

But instead of following up on their newfound energy, the strings thin to a single harmonic A in the cello (Figure 3.11, m. 25). This recalls the most quiet passage

The figure shows a musical score for measures 23 through 28. The instruments are Piano (Pno.), Violin I (Vn. I), Violin II (Vn. II), Viola (Va.), and Cello (Vc.). The time signature is 3/4. The key signature has one sharp (F#). The piano part has notes with fingerings: m. 23 (2, 3), m. 24 (5, 8), m. 25 (3, 4), m. 26 (7, 8), m. 27 (3, 4), m. 28 (7, 8). The strings play a single note (A) in each measure, with fingerings: Vn. I (5, 8), Vn. II (5, 8), Va. (5, 8), Vc. (5, 8). A dashed line labeled '(thinning to...)' points from the piano note in m. 25 to the cello note in m. 25. A dashed line labeled '(unison)' points from the piano note in m. 27 to the cello note in m. 27.

Figure 3.11: *Piano and String Quartet*, mm. 23–28

of the previous music, where the cello played the same note alone (m. 13). When another cello harmonic —  $D\sharp$ , providing just a unison doubling of a piano note — follows as the next string contribution (m. 27), it really seems that the phrase has fizzled.

I use the term “phrase,” but there are neither phrase marks in the score, nor the differentiated surface rhythmic patterning we might expect to hear in music with clear phrasing. The length of pauses between successive gestures is somewhat flexible, but not usually in a way that distinguishes one pause from another; moreover, there are no written dynamic changes. Phrasing in this music comes entirely from the pitches, whose varying qualities lead me to group them in ways analogous to phrasing in more familiar music. If I’m listening to this piece with an ear toward phrasing, I’m taking its flat surface rhythmic layout and shaping it into larger, phrase-sized chunks delimited by pitch events.

During the first few minutes, I can hear the isolated gestures as comprising two large phrases. The first begins with strings steadily building a thicker sound against a repeated piano chord, with some sense of reaching forward. This motion is interrupted while the strings linger over quieter material. I think of this interruption as belonging to the first phrase. The second phrase begins after the interruption peters out, with a chord that serves as an anacrusis (m. 19). This shorter phrase, like the first, dissolves before getting anywhere.

All this talk of phrasing says something about the kind of listening experience I have at the beginning of the piece. I follow the music as a narrative, watching for its twists and turns, waiting for signs of progress and direction. Yet, as I mentioned earlier, this kind of experience doesn't last. Before long, I slip into a way of listening that is more focused on the moment and less concerned with continuity between moments. That doesn't usually happen before the third phrase, the stretch of music I'm about to describe. But it can happen soon after.

The beginning of the third phrase parallels that of the second (Figure 3.12). Both have an anacrusis (mm. 19, 29), in which the top edge of the string chord displaces the previous lone string pitch down a half step (A to A $\flat$  in mm. 17–19; D $\sharp$  to D in mm. 27–29), and middle C from the opening returns at the bottom of the chord. In both cases, this thicker anacrusis chord, which follows a few thinner-sounding string notes, seems like a new beginning, and the subsequent “downbeat” brings a rare chord change in the piano (mm. 21, 31). In the third phrase, the chord change produces a feeling of relaxation, because of several downward half-step moves: E to E $\flat$  and D $\sharp$  to D in the piano; D to D $\flat$  in the strings. The piano reaches back up to the high A $\flat$  with which it began the piece, and it reinstates E $\flat$  as its lowest pitch (m. 31). These pitches give me a mild sense of *déjà vu*, especially with the cello now playing the D $\flat$  from the opening. But this is no paraphrase of the opening — the cello's lazy alternation of B and D $\flat$  against the next few piano chords has

The figure displays two systems of musical notation for Piano and String Quartet. The first system covers measures 17 to 22, and the second system covers measures 27 to 32. Both systems include staves for Piano (Pno.), Violin I (Vn. I), Violin II (Vn. II), Viola (Va.), and Violoncello (Vc.).

**System 1 (Measures 17-22):**

- Measures 17-18:** Piano part has a complex chord structure. A note in the first violin part is circled and labeled "(h)".
- Measure 19:** A dotted line connects the circled note in measure 18 to a note in measure 19, labeled "(half-step displacement)".
- Measure 21:** A piano chord change is indicated by a box around the piano staff and the label "(pno. chord change)".

**System 2 (Measures 27-32):**

- Measure 29:** A note in the first violin part is circled and labeled "(h)".
- Measure 30:** A dotted line connects the circled note in measure 29 to a note in measure 30, labeled "(half-step displacement)".
- Measure 31:** A piano chord change is indicated by a box around the piano staff and the label "(pno. chord change)".
- Measure 31:** A note in the first violin part is circled and labeled "(h)".
- Measure 32:** A dotted line connects the circled note in measure 31 to a note in measure 32, labeled "(half-step displacement)".

Additional annotations include "anacrusis" above measure 29 and "half-step displacements" below measure 30.

Figure 3.12: *Piano and String Quartet*, comparing mm. 17–22 and mm. 27–32

such a different feel from the forward-looking chord build-up of the first phrase (Figure 3.13). And nothing that soon follows will restore that sense of anticipated motion toward a destination.

The three phrases I've described have something in common: they run out of gas before getting anywhere. I believe it is this quality, in addition to the sheer weight of repeated gestures, that finally begins to nudge me into a different way of listening. I could go on to describe subsequent phrases. If I take care to maintain my initial listening attitude, it's possible to make sense of the music as a series of

Figure 3.13: *Piano and String Quartet*, mm. 29–36

rather perplexing phrases. But would that be true to the listening experience I have naturally — that is, without trying especially hard to listen in one way or another? Not really, because this sort of phrasing implies purposeful motion, and I usually stop hearing this music as purposeful in that way. In any case, the fourth phrase, whose first downbeat would fall at m. 39, is more static than anything before, due to its repeated C-D major ninth (Figure 3.14). By this time, I’m well on my way to a different mode of listening.

Figure 3.14: *Piano and String Quartet*, mm. 39–46

If I stop listening for phrases, arrivals, and the like, there are still two different ways in which I might hear this music. One way is to listen “in the moment,” focusing only on the sound before me, and doing so in such a concentrated way that I blot out my memory of what has already happened in the piece. In other words, I put each event under a microscope and appreciate its qualities without feeling a sense of continuity or connection between events.

This way of listening is in accord with a commonly held view of Feldman’s music: that one sound has no dependence on another. The idea is that Feldman chose sounds in such a way as to keep you from finding a continuity between them. Some remarks by Feldman support this view. In an interview with Walter Zimmermann, Feldman discusses his practice of drawing many successive chords from the same pitch-class collection and arranging them differently in register (as happens extensively during the second half of *Piano and String Quartet*).

**Zimmermann:** I see in your pieces that every chord which follows tries to establish a completely different world from the former one.

**Feldman:** Yes. Actually now I just try to repeat the same chord. I’m re-iterating the same chord in inversions. I enjoy that very much, to keep the inversions alive in a sense where everything changes and nothing changes. Actually before I wanted my chords in a sense to be very different from the next, as if almost to erase in one’s memory what happened before. That’s the way I would keep the time suspended . . . by erasing the references and where they came from. You were very fresh into the moment, and you didn’t relate it. And now I’m doing the same thing with this relation. And I find it also very mysterious.<sup>3</sup>

The point was to “keep the time suspended” — to enable a listening experience that centers around the appreciation of sound qualities, not around a narrative that depends on precise timing and the comparison of sound events. This is an attractive notion, but I’m skeptical of the idea that sounds could really be independent, exerting no influence on each other. I don’t believe that my hearing of one

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<sup>3</sup>Morton Feldman, *Essays*, ed. Walter Zimmermann (Beginner Press, 1985), 230.

event in any music could have *no* influence on my hearing of the next event — that one event could wipe away the memory of another.<sup>4</sup> But taking a less extreme position, it may be more a matter of how consciously I feel the influence. Some pieces could encourage this attitude more than others. Perhaps *Piano and String Quartet*, with its repetitive gestures and lengthy pauses between chords, encourages a form of listening that downplays inter-event influence.

In another interview, with Peter Gena, Feldman recognizes that the issue of continuity and narrative is complicated. Gena gives voice to the opinion that one moment in Feldman's music is independent of the next, and that there is no narrative, at least of the goal-directed sort. Feldman doesn't want to go along.

**Gena:** Well, let's say that it's not even such a matter of functional harmony, but rather the idea of teleological sound structure where the sound had to go somewhere. So not only would Schoenberg criticize Cage's chorale assignments, but he obviously didn't feel that John's music went somewhere. Of course, this is the big break, where finally there were people like yourself and John saying music doesn't have to go anywhere. A sound is not part of a hierarchy.

**Feldman:** But music does go somewhere.

**Gena:** Where, other than time? It moves in time, but you can't tell me after all these years that when there are two successive sounds in your music, the choice of the second sound was dependent on what the first was. Or that you were drawn from the first sound into the second one. Cage certainly allows for that *not* to happen. You both deal with nonreferential time.

**Feldman:** It's not so easy. It's not easy. If you were going to analyze, for example, Tolstoy's *War and Peace*, you can say the man is rambling on and on. A big Balzac novel — is he rambling? Where's the cause and effect? Is he telling the story? Proust is a perfect example. Where's the form? What ties things up? Is it rambling?<sup>5</sup>

If you had a preconceived view of what counts as dependency between successive events — that they share motivic features or intervallic makeup, for example —

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<sup>4</sup>To be fair, I note that Feldman says "as if *almost* to erase in one's memory what happened before" (emphasis mine).

<sup>5</sup>Peter Gena, "H. C. E. (Here Comes Everybody)," in *The John Cage Reader*, ed. Peter Gena and Jonathan Brent (New York: C. F. Peters, 1983), 56–7.

then you might describe two events as independent or unrelated if they didn't obviously share these traits. But events can be related by dissimilarity as well as by similarity, such as when one event arises as a reaction to another. In any case, connections between Feldman's events are often subtle and mysterious. Just because it's hard to describe the relationship between two events doesn't mean that your ear isn't influenced by it.

This leads me to a second way of listening: focusing on the moment but remaining open to the memory of previous events and aware of their influence on the current sound. This represents a compromise between a purely in-the-moment, engrossed-in-sound way of listening and one that concentrates primarily on narrative aspects — where the music goes, how one event leads to another, and so on. As I listen to *Piano and String Quartet*, I begin to lose my concern for the narrative and to “zoom in” on the qualities of events that pass by. Though I attend closely to the sound of the moment, the shadow of recent events remains in my peripheral vision. It's just that I'm no longer expecting these events to lead somewhere — to form a narrative continuity.

Past events can affect a current one in two ways: as narrative — that is, by providing a story line that a current event can extend — or as *coloration*, by casting a particular light on a current event. An example of the former would be the first movement of Beethoven's *Fifth Symphony*, where each statement of the “fate knocking at the door” motive extends a story line initiated by the monophonic opening. In Feldman, it's more a matter of color: one event's pitches constitute a kind of light filter through which you perceive the next event's pitches. Or, put another way, the current event's pitches are suffused with the color of the previous event's pitches. So the effect of the previous event is felt *in* the sound qualities of the current one, rather than through the memory of a sequence of events contribut-

ing to a story line. In other words, the previous event forms a part of the character of the current event.<sup>6</sup>

This can best be understood in *Piano and String Quartet* by comparing various approaches to a particular chord. A chord might appear twice in the piece, but different contexts mean that the chord doesn't sound the same each time you hear it. Take the chord played in m. 60, for example. It sounds different here than it did in its first appearance, in m. 25 (Figure 3.15). How can that be, if the chords are identical? Because the two instances of this chord follow a different chord.<sup>7</sup> The

The figure displays two systems of musical notation for Piano and String Quartet. The first system covers measures 21 to 26. The piano part (Pno.) is shown in the top staff, with a note in measure 25 labeled "(piano: same chord)". The string parts (Vn. I, Vn. II, Va., Vc.) are shown in the lower staves. A dotted line connects a note in the Vc. part of measure 25 to a note in measure 26, with the annotation "(thin to one note)". The second system covers measures 56 to 61. The piano part (Pno.) is shown in the top staff, with a note in measure 60 labeled "(piano: chord change)". The string parts (Vn. II, Va., Vc.) are shown in the lower staves. A dotted line connects a note in the Vc. part of measure 59 to a note in measure 60, with the annotation "(half-step displacements)".

Figure 3.15: *Piano and String Quartet*, comparing mm. 21–26 and mm. 56–61

first time, the piano repeats its chord; the second time, the piano changes its chord; and the strings behave differently in the two instances. The chord in m. 25, with

<sup>6</sup>Catherine Hirata explores this idea in her article, "The Sounds of the Sounds Themselves — Analyzing the Early Music of Morton Feldman," *Perspectives of New Music* 34, no. 1 (1996).

<sup>7</sup>To facilitate a listening comparison, the approach to m. 25 begins at 1:32 on the CD recording cited earlier; the approach to m. 60 begins at 3:37.

its piano pitches repeated from before, deepens the color of the preceding chord, creating a more saturated version.<sup>8</sup> Though the strings do not also repeat their notes, thinning the string chord to a single note gives the impression of reducing the first chord to its essential nature. By contrast, the second time we hear the chord introduced in m. 25, the change of piano pitches effects a change of hue, not just a change of saturation. The half-step displacements between piano chords (from E $\flat$  to E and from D to D $\sharp$ ), the loss of the high A $\flat$ , and the drop to low B $\flat$  all make for a more dramatic change. They make the chord in m. 60 sound more dynamic, more energized, than the same chord did in m. 25. So even if I'm trying to listen completely "in the moment," focusing only on what is before my ears, the chord in m. 25 will still have a different character than the chord in m. 60. My perception of those sounds can't entirely escape the influence of what I've just heard a few seconds before.

Perhaps when listening, we have two levels of awareness: conscious and unconscious. When listening to the *Fifth Symphony* and following the stream of motives emanating from the opening statement, I remain consciously aware of the characteristics of that statement as the story unfolds. When listening to *Piano and String Quartet*, as the repetitive gestures wash over me like gentle waves, I slip into a state in which I focus only on the sound of the moment. But I'm unconsciously aware of previous events, which thereby affect the sound of the current event. There is inter-event influence, but it's taking place at an unconscious level.

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<sup>8</sup>Some color terminology might be helpful here. *Hue* is the quality of a color, corresponding to its wavelength. Red, orange, yellow, green and blue are examples of different hues. *Saturation* is the purity of a color, governed by how much white is mixed in. The more white a color contains, the less saturated it is. Given the same hue, increasing the saturation gives you a deeper, purer color; decreasing the saturation gives you a paler, more washed-out color. So if you take the pure red of a fire engine, and then add white to it, reducing its saturation, you get the pink of cotton candy.

Earlier I suggested some reasons for a shift in my attitude when listening to *Piano and String Quartet*. The reasons generally amounted to the lack of payoff when listening for arrivals and phrases. Though the music can work in a phrase-oriented way for a little while, that approach becomes less rewarding as the piece continues. The music just doesn't seem to go like that, especially as it enters the fourth phrase, mentioned above (p. 26). As the music becomes ever more resistant to my phrase-parsing, I give up trying to hear in terms of phrases. Instead of a listening stance that follows the progress of a phrase, keeping in mind the whole of its trajectory as it passes, this piece encourages a form of listening more devoted to sound qualities of the moment. As I argue above, this need not exclude musical memory. But moment-listening does minimize its role.

A further dimension of this issue is something that I'll call "memory scrambling" — or, reordering a series of earlier events in an attempt to wean a listener from reliance on narrative continuity. Feldman touches on this technique in a discussion of his piano piece, *Triadic Memories*. He talks about the process of composing a section that features chords repeated in an unpredictable pattern.

In *Triadic Memories*, a new piano work of mine, there is a section of different types of chords where each chord is slowly repeated. One chord might be repeated three times, another, seven or eight — depending on how long I felt it should go on. Quite soon into a new chord I would forget the reiterated chord before it. I then reconstructed the entire section: rearranging its earlier progression and changing the number of times a particular chord was repeated. This way of working was a conscious attempt at "formalizing" a disorientation of memory. Chords are heard repeated without any discernible pattern. In this regularity (though there are slight gradations of tempo) there is a *suggestion* that what we hear is functional and directional, but we soon realize that this is an illusion; a bit like walking the streets of Berlin — where all the buildings look alike, *even if they're not*.<sup>9</sup>

Feldman's description sheds some light on the passage in *Piano and String Quartet* that leads me to abandon the narrative listening posture I adopt at the start of

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<sup>9</sup>Morton Feldman, "Crippled Symmetry," in *Essays*, ed. Walter Zimmermann (Beginner Press, 1985), 127 (italics in the original).

the piece. Feldman is talking about a process of composition in which he reorders chords in his sketch to form the final version of a passage. In *Piano and String Quartet*, there are two finished passages related by a similar transformation, and the result of hearing one after the other fits Feldman's description of a "disorientation of memory."

From m. 47 to m. 72, all the chords are drawn from previous measures, sometimes with slightly different instrumentation in the strings, but often appearing exactly as they did before. The difference is the ordering of the chords. The reordering does not follow any predictable pattern; instead, it's as if someone shuffled a deck of cards. That's not literally true: the passage begins with the widely-spaced piano chords first presented in mm. 21–37 and ends with the more tightly-spaced piano chords drawn from mm. 39–45. But within this general arrangement, the order of individual events is scrambled. For example, compare mm. 21–35 and mm. 47–61: the order of chords changes (Figure 3.16). One of the initial chords (m. 25) returns (in m. 59) only after the piano has moved on to its next chord (in m. 55), giving an even stronger impression of disorientation.

What effect does all this have on me as I listen? The order-scrambling begins after previous events have already begun to erode my narrative listening attitude. As I reach this passage, I've grown less interested in following the piece as a series of phrases, and more involved in absorbing the qualities of the moment. I still haven't lost my memory of events. I don't pretend to have total recall of the order of every previous chord when listening, but I have enough of a sense of this order to realize generally what the order-scrambling passage is doing with earlier material. What it's doing to *me* is playing with my ability to fit each current event into a mental map of the continuity of the piece. So I begin to feel disoriented, lost within a seemingly endless succession of repetitive gestures. This is not an unpleasant feeling, for I'm attracted to the qualities of each event and find it sufficient

The image displays a musical score for Piano and String Quartet, comparing two sections: mm. 21–35 and mm. 47–61. The score includes staves for Piano (Pno.), Violin I (Vn. I), Violin II (Vn. II), Viola (Va.), and Cello (Vc.).

**Chord order:** A B C D E F G F

**Scrambled:** B E A D F F C G

The diagram shows the following chord sequence for mm. 21–35: A (m. 21), B (m. 23), C (m. 25), D (m. 27), E (m. 29), F (m. 31), G (m. 33), and F (m. 35). The sequence for mm. 47–61 is: B (m. 47), E (m. 49), A (m. 51), D (m. 53), F (m. 55), F (m. 57), C (m. 59), and G (m. 61). Dotted lines connect the chords in the second section to their corresponding chords in the first section, illustrating a scrambled order.

Figure 3.16: *Piano and String Quartet*, comparing mm. 21–35 and mm. 47–61 (without rhythm and meter)

just to focus on these. Once I come upon the reordered series of tightly-spaced piano chords (mm. 64–71), my own transformation from a narrative listener to an in-the-moment listener is complete. And then shortly after (mm. 76–77), I hear the immediate chord succession that prompted this whole investigation, and once again I think about issues larger than the feel of the sound before me.

When analyzing music, we often think of “getting lost” as an undesirable situation — a failure either on our part or on the part of the composer. (As listeners, we should be more attentive; as composers, we should be clearer.) But this may not be the right attitude. I suggest that many a classical development section, with

its rapidly shifting tonality, was designed to make listeners feel lost before the dramatic return to the tonic and opening theme rescues them. And clearly, the music of *Piano and String Quartet* encourages the listener to get lost, the better to concentrate on and appreciate its subtle surface qualities.

In this connection, let's read what Robert Wilson, the American theater director and performer, says about the experience of getting lost in the theater. He's writing about his solo performance of *Hamlet: A Monologue*.

"Hamlet," though, is a play that can be done in different ways . . . We could put it in a swimming pool in Los Angeles; we could put it on the moon; we could put it in the middle of a highway, run over it with a steamroller and this Shakespeare text — an indestructible rock — is not destroyed.

In fact, it is a play you can get lost in. I think it's very necessary to get lost. It's difficult for American audiences, because we are so used to television, where we respond every 30 seconds or 1 minute or 2 minutes. Here, I don't want that. I want to be able to get lost in this work.

All the theater I see — I hate to say it, but I find no exception in recent years — the way plays are directed or spoken, the way they are written, demands a response like in a television sitcom. The audience never has longer than three minutes to respond. And still the fear is of losing the audience. I believe: lose the audience, let them get lost, it's O.K. In Europe it's a bit better, but it's even changing there.

Theater is becoming more and more entertaining. There's nothing wrong with entertainment, and it's true that all theater should be entertaining. But I think entertainment, in the sense that we have to respond or laugh or cry every minute or second, is wrong. If all theater is that way, then something is wrong.<sup>10</sup>

Wilson links "getting lost" with the timing of audience responses. The rapid-fire punch-line orientation of a sitcom aims to provoke laughter every ten seconds. Wilson worries that this sensibility is infecting the theater, implying that it makes for a more one-dimensional theater experience. The idea of responding immediately to every twist and turn of a story is just as relevant to music as it is to theater. Clearly, Feldman's music is not designed for this kind of experience, encouraging

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<sup>10</sup>Robert Wilson, "'Hamlet' as Autobiography, Spoken in Reflective Voice," *New York Times*, July 2, 1995.

instead a more contemplative attitude. Applying Wilson's ideas about the theater to Feldman: it's okay to get lost and feel disoriented when listening to Feldman — that's a positive part of the musical experience.

\* \* \*

The kind of listening that I adopt after the first few minutes of *Piano and String Quartet* bears a resemblance to meditation. There are many forms of meditation practice among Buddhists, but a common thread is a focus on the present moment, achieved in part by attention to the breath. As suggested above, this Feldman piece encourages me to listen closely to the qualities of the moment while downplaying connections between events. The musical characteristic most responsible for encouraging this way of listening — the repetitive rhythm of gestures — could be likened to breathing. It's worth thinking about the meditation analogy if it deepens an understanding of what can happen to someone when listening to Feldman.

For some background, I turn to a teacher of meditation, the noted Zen master, Shunryu Suzuki. When Buddhist teachers talk about meditation, they do so in a way that works against the dualistic conceptions held by Westerners — distinctions between mind and body, good and bad, our selves and the world. Suzuki conveys a sense of this outlook while discussing breathing in *zazen*, or sitting meditation.

When we practice *zazen* our mind always follows our breathing. When we inhale, the air comes into the inner world. When we exhale, the air goes out to the outer world. The inner world is limitless, and the outer world is also limitless. We say "inner world" or "outer world," but actually there is just one whole world. In this limitless world, our throat is like a swinging door. The air comes in and goes out like someone passing through a swinging door. If you think, "I breathe," the "I" is extra. There is no you to say "I." What we call "I" is just a swinging door which moves when we inhale and when we exhale. It just moves; that is all. When your mind is pure and calm enough to follow

this movement, there is nothing: no “I,” no world, no mind nor body; just a swinging door.<sup>11</sup>

In pursuing the swinging-door metaphor, Suzuki cultivates an attitude toward meditation: it’s not merely a physical breathing exercise, but something more holistic, involving the body/mind, the total person.

Zen practice embodies notions of time and place that run contrary to Western experience. Suzuki claims that meditation sharpens an awareness of moment-by-moment activity, and that this attitude might spill over into one’s everyday life.

So when you practice zazen, there is no idea of time or space. You may say, “We started sitting at a quarter to six in this room.” Thus you have some idea of time (a quarter to six), and some idea of space (in this room). Actually what you are doing, however, is just sitting and being aware of the universal activity. That is all. This moment the swinging door is opening in one direction, and the next moment the swinging door will be opening in the opposite direction. Moment after moment each one of us repeats this activity. Here there is no idea of time or space. Time and space are one. You may say, “I must do something this afternoon,” but actually there is no “this afternoon.” We do things one after the other. That is all. There is no such time as “this afternoon” or “one o’clock” or “two o’clock.” At one o’clock you will eat your lunch. To eat lunch is itself one o’clock. You will be somewhere, but that place cannot be separated from one o’clock. For someone who actually appreciates our life, they are the same. But when we become tired of our life we may say, “I shouldn’t have come to this place. It may have been much better to have gone to some other place for lunch. This place is not so good.” In your mind you create an idea of place separate from an actual time.<sup>12</sup>

Suzuki wants to think of time and place as integral qualities of a specific activity, rather than as independent dimensions. (For a Westerner, this is hard to grasp, but it does parallel a more familiar musical idea: that timbre and pitch might best be thought of as integral properties of a note, rather than as independent “parameters.”)<sup>13</sup> Approaching time in this way meshes with the focus on the present

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<sup>11</sup>Shunryu Suzuki, *Zen Mind, Beginner’s Mind*, ed. Trudy Dixon (New York: Weatherhill, 1972), 25.

<sup>12</sup>Ibid., 25–26.

<sup>13</sup>Paul Lansky explains this distinction in his review of Wayne Slawson, *Sound Color*, *Journal of Music Theory* 33 (1989).

moment that is so important for Zen meditation. “Moment after moment each one of us repeats this activity.” As you sit, your attention stays with the breath — with the present moment — and you give no thought to a wider temporal context.

Suzuki advocates a meditation practice that is not motivated by pursuit of a goal, such as the heightened sense of awareness known as *kensho*, or enlightenment, for which some other proponents of Buddhist meditation strive. He suggests that concentration on the present moment is a way to meditate without having some goal in mind.

In our practice we have no particular purpose or goal, nor any special object of worship . . . as long as you have some particular goal in your practice, that practice will not help you completely. It may help as long as you are directed towards that goal, but when you resume your everyday life, it will not work.

You may think that if there is no purpose or no goal in our practice, we will not know what to do. But there is a way. The way to practice without having any goal is to limit your activity, or to be concentrated on what you are doing in this moment. Instead of having some particular object in mind, you should limit your activity. When your mind is wandering about elsewhere you have no chance to express yourself. But if you limit your activity to what you can do just now, in this moment, then you can express fully your true nature, which is the universal Buddha nature. This is our way.

When we practice *zazen* we limit our activity to the smallest extent. Just keeping the right posture and being concentrated on sitting is how we express the universal nature. Then we become Buddha, and we express Buddha nature. So instead of having some object of worship, we just concentrate on the activity which we do in each moment. When you bow, you should just bow; when you sit, you should just sit; when you eat, you should just eat. If you do this, the universal nature is there.<sup>14</sup>

Limiting your activity while meditating — attending to your breath and posture, concentrating on the present moment — is the way to “express fully your true nature.” Having a goal is unnecessary and even unhelpful. Speaking about the proper posture and position of the hands for *zazen*, Suzuki elaborates further.

These forms are not a means of obtaining the right state of mind. To take this posture itself is the purpose of our practice. When you have this posture, you

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<sup>14</sup>Suzuki, 71.

have the right state of mind, so there is no need to try to attain some special state. When you try to attain something, your mind starts to wander about somewhere else. When you do not try to attain anything, you have your own body and mind right here.<sup>15</sup>

Suzuki believes that when we sit in the right posture, we already have enlightenment, so we need not pursue that as a goal of our practice.

So what does all this have to do with listening to Feldman? Let me stress that listening to Feldman is not a form of meditation. But some aspects of meditation, as described by Suzuki, resonate with the experience of listening to *Piano and String Quartet*. As my narrative listening attitude breaks down during the first few minutes of the piece, what takes its place can be characterized as *meditative listening*. This kind of listening contrasts with narrative listening in several ways. An essential part of narrative listening is the ongoing comparison of current sound events with previous ones. I compare in order to understand how the musical story develops. This implies that the value of a current event derives in part from its relation to past events, not just from an appreciation of its qualities for their own sake. In contrast, as a meditative listener I concentrate on the sound before me without considering its relation to previous events; the whole point of listening is to savor the qualities of the present moment. This does not mean that previous events have no effect on the sound of the moment, as I mentioned earlier in this chapter (p. 29). But as a meditative listener, I am not in story-following mode, consciously trying to understand how I got here from there.

With narrative listening, I devote some part of my attention to the future course of events. The music suggests paths it might follow, and when an arrival confirms one of these paths, I have the sense that I might have predicted it while hearing the events leading to the arrival. The music then seems goal-directed to me. This kind of experience is familiar to anyone who listens to “common practice” tonal music,

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<sup>15</sup>Ibid., 22–23.

but it's also possible to some extent with music that does not possess such a well-understood linear/harmonic/rhythmic framework. Notice that it's not necessary to predict an outcome — only that once achieved, an outcome seems the plausible result of events *leading* to it. This event-connecting, goal-oriented kind of listening does not ignore or devalue the element of surprise; after all, you can only be surprised if you were expecting something else to happen. But narrative listening is by nature bound up with expectation and prediction, with achievement or denial of goals. In its nearly exclusive focus on the present moment, meditative listening holds no concern for the future direction of the music or the evolution of its story line. Just as the meditator who shares Suzuki's attitude does not set goals for meditation, the meditative listener does not expect the music to lead her from one place to another. Both the meditator and the meditative listener attend closely to the present, unconcerned with the future or the ways in which the present emerges from the past.

Note that meditative listening is not a passive activity. It's not as if the narrative listener is working hard and thinking constantly and reacting to every turn of phrase, while the meditative listener is letting the sound flow over him as he dozes off. Meditative listening requires discipline and concentration. Although some people might find this Feldman piece to be sleep-inducing, the meditative listener is wide awake, alive to every moment — and not distracted by the thoughts of a wandering mind. Meditative listening provides an experience of music that is very direct, unmediated by thoughts about continuity, development or other concerns of the narrative listener.

A further dimension of the meditation analogy addresses one specific aspect of *Piano and String Quartet*, not just a listener's attitude toward the piece. The music is a series of brief gestures, all sharing a particular shape, if not details of pitch, timbre and density. It's easy to imagine the musical activity as a representation of

breathing, with the notes as exhalation and the intervening rests as inhalation. The exhalation is explicit: a chord falling on the downbeat; the inhalation is implicit: a pause while the piano rings. The “breathing” rate is slow and subtly irregular, like our own breathing.

Pema Chödrön, an American teacher of Tibetan Buddhist meditation, recommends a meditation practice that centers on the out-breath, or exhalation. Her description of the technique characterizes the in-breath as an opportunity to let go of angry or troubling thoughts.

You may have wondered why we are mindful of our out-breath and only our out-breath. Why don't we pay attention to the out-breath *and* the in-breath? There are other excellent techniques that instruct the meditator to be mindful of the breath going out and mindful of the breath coming in. That definitely sharpens the mind and brings a sense of one-pointed, continuous mindfulness, with no break in it. But in this meditation technique, we are with the out-breath; there's no particular instruction about what to do until the next out-breath. Inherent in this technique is the ability to let go at the end of the out-breath, to open at the end of the out-breath, because for a moment there's actually no instruction about what to do. There's a possibility of what Rinpoche used to call “gap” at the end of the out-breath: you're mindful of your breath as it goes out, and then there's a pause as the breath comes in. It's as if you . . . pause. It doesn't help at all to say, “Don't be mindful of the in-breath” — that's like saying, “Don't think of a pink elephant.” When you're told not to be mindful of something, it becomes an obsession. Nevertheless, the mindfulness is on the out-breath, and there's some sense of just waiting for the next out-breath, a sense of no project. One could just let go at the end of the out-breath. Breath goes out and dissolves, and there could be some sense of letting go completely. Nothing to hold on to until the next out-breath.

Even though it's difficult to do, as you begin to work with mindfulness of the out-breath, then the pause, just waiting, and then mindfulness of the next out-breath, the sense of being able to let go gradually begins to dawn on you. So don't have any high expectations — just do the technique. As the months and years go by, the way you regard the world will begin to change. You will learn what it is to let go and what it is to open beyond limited beliefs and ideas about things.<sup>16</sup>

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<sup>16</sup>Pema Chödrön, *The Wisdom of No Escape: and the Path of Loving-Kindness* (Boston: Shambhala, 1991), 19–20.

It would be nice to claim that listening to Feldman could lead one to shed “limited beliefs and ideas,” and I suppose it would be possible to listen to this piece as if you were meditating, breathing along with the music. But I’m suggesting only that the *piece* breathes in a way that’s analogous to Chödrön’s meditation technique — with the out-breath expressed as notes and the in-breath, or pause, as rests. Whether the *listener* breathes that way is another matter. Still, perhaps this analogy might help to shape a listener’s attitude, encouraging patience and inviting the listener to leave behind any limited beliefs about the music he values: that the rate of activity be sufficiently high, or that the continuity be governed by a musical story that constantly evolves.

At the beginning of this chapter (p. 17), I describe the extraordinary moment in *Piano and String Quartet* (m. 77) when two chords finally come together without intervening pause — two out-breaths with no in-breath between them. This event, though a seemingly minor disruption, makes a big impression on me, because it interrupts the consistent breathing of the music up to that point. While my transformation from narrative to meditative listener throughout the music prior to this event is gradual, the back-to-back chords provoke a sudden realization about my listening. Maybe the meditation analogy can speak to this important moment. Jon Kabat-Zinn, a doctor who promotes meditation for stress reduction, discusses ways of ending a meditation session.

In the Zen tradition, group sitting meditations are sometimes ended with a loud wooden clacker which is whacked together forcefully. No romantic lingering with the sound of a soft bell to ease the end of a sitting. The message here is to cut — time to move on now. If you’re daydreaming, even slightly, when the clacker goes off, the sound will startle you and thereby point out how little you were actually present in that moment. It reminds you that the sitting is already over and now we are in a new moment, to be faced anew.

In other traditions, the gentle ring of a bell is used to mark the end of group sittings. The softness of the bell brings you back too, and also points out whether your mind was on the loose at the moment it rang. So, when it comes to ending a sitting, soft and gentle is good, and hard and loud is good. Both remind us to be fully present in moments of transition, that all endings are also be-

ginnings, that what is most important, in the words of the Diamond Sutra, is to “develop a mind that clings to nothing.” Only then will we be able to see things as they actually are and respond with the full range of our emotional capacity and our wisdom.<sup>17</sup>

Perhaps then, this special moment in the piece is analogous to the bell or clacker that marks the end of a meditation session. It’s a “moment of transition,” breaking the gestural pattern established at the opening and leading to a subtly new textural layout (m. 83 ff). If hearing this moment startles me, does it mean that I’m daydreaming? Kabat-Zinn suggests that if I’m fully present in this moment, then I will accept what the moment has to offer. I will “see things as they actually are” — experience the music directly, rather than through a screen of preconceived ideas. Maybe I will think of this moment in the music neither as a goal of the preceding passage, nor as a surprise meant to throw me off balance, but just as a natural change in the life of the piece.

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<sup>17</sup>Jon Kabat-Zinn, *Wherever You Go, There You Are: Mindfulness Meditation in Everyday Life* (New York: Hyperion, 1994), 119.

## Chapter 4

### Andriessen: *De Materie*, Part IV

Picture yourself shopping downtown, ambling along the street. You're planning to be back before six, but you've left your watch at home. Suddenly the bell tower pierces the air. Is it five yet? Count the bell strikes, each one clanging for a few seconds. Four pass by. Is that all? What's it like to wait for the fifth strike, wondering whether it will come?

Though we usually don't rely on bell towers for time-telling, most people are familiar with the experience of listening to bells in this way. Most people also know what it's like to listen to clock-tower bells not for information, but just for the pleasure of hearing them — the inharmonic ringing, the spreading echoes. You can listen in both ways simultaneously: nothing prevents you from enjoying the sound of bells while using them to tell time. But the experience of telling time is very different from the experience of listening to bells without wondering whether they will strike once more, without waiting for a particular result.

Something like the tension between these two ways of listening is alive in the fourth part of Andriessen's *De Materie*.<sup>1</sup> The piece opens with the ensemble emulating the tolling of bells. A lengthy dirge unfolds; then the music stops while we hear readings from the diary of Madame Curie and from her Nobel Prize acceptance speech — texts dealing with the death of her husband, Pierre, and the re-

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<sup>1</sup>While discussing the music, I refer to the CD recording, *Louis Andriessen: De Materie* (Nonesuch 79367-2), and to the score, *De Materie (Part IV)* (Amsterdam: Donemus, 1988).

ception of her work by the scientific community. During the opening minutes, the “bells” play two chords that alternate in a slow, irregular pattern. When following this stark music, in which the palette of sounds is very limited, I wait for something new to happen, some sign that the music will soon change course. This is somewhat like counting clock-tower bell strikes to determine the time. Of course, I’m not necessarily counting, but the bell sounds, widely separated in time, encourage an expectant attitude that is similar to the one I adopt when listening to the clock-tower.

This is a form of narrative listening: I think of how the music I hear in the current moment connects to the music I remember from earlier moments, and I wonder how the story will continue. But the music advances slowly and occasionally seems to lose its way, so that I sometimes doubt whether my listening attitude is right. Maybe the music is not as purposeful as I thought. Perhaps it’s better to listen in a more relaxed way, focusing on sonic qualities rather than sensible continuities. Listen to the bells just for the pleasure of hearing them.

On the face of it, this sounds like my experience of the Feldman *Piano and String Quartet*. With that piece, I begin by imagining a linear narrative for the music, only to find that a meditative listening posture is more appropriate. The piece encourages my appreciation of the sound of each moment and confounds my attempts to understand these moments as part of a compelling narrative. But my experience of the Andriessen is different. Although I sometimes feel adrift while listening, a clear trajectory of events does emerge: the tolling of bells develops gradually into a powerful image of struggle, in the form of massive alternating chords, which trudge on like weary pallbearers. By the time we reach the monumental climaxes that arrive late in the piece, it’s obvious that the repetitive bell strikes from the opening were leading here all along.

To convey a more vivid sense of my listening experience of this Andriessen piece, I will discuss the opening music in more depth. As you might expect with music of any complexity, my initial description of it, as simply the tolling of bells, ignores the details and quirks that help make the music worth listening to in the first place. I want to think about what it's like for me to hear this music, how it plays with my expectations and memory. I want to understand how it is that the music seems to move forward, even though there are some places where the repetition begins to lull me into a more contemplative state, in which narrative listening is less active.

Like the Feldman, the beginning of this piece unfolds as a series of isolated events having a similar profile — each event a ringing chord — and only the occasional rhythmic articulation that helps me to parse the music into phrases. Feldman chooses his chords from a broad selection; there are many different types of chord, and their sequence is very free and flexible. This makes it even more natural for me to slip gradually into meditative listening. By contrast, Andriessen has only a few chords, and their sequence calls to mind the actions of machines, with rigid alternations and sporadic malfunctions. The presentation of these chords is quite tense, due to the aggressive attacks and the lengthy pauses between attacks, which serve to intensify my expectations.

Let's examine the opening of the piece. Along with the first "bell" strike — played by vibraphone, glockenspiel, pianos and harp — comes a vigorous, fast-moving repeated pattern in the bass and contrabass clarinets.<sup>2</sup> This nasty, low growling sound stands in contrast to the clear, high bell. The growling stops suddenly after four iterations, leaving the bell ringing alone for a few seconds (Figure 4.1). Another bell strike follows, this one with different pitches in its chord.

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<sup>2</sup>For simplicity, I refer to the collection of instruments playing the chords as a "bell," even though there are no real bells playing.

Figure 4.1: *De Materie, Part IV*, mm. 1–8

But there is no accompanying clarinet riff — the bell chord hangs in the air. The next event returns to the opening for a repetition of the first two bell strikes, with clarinets contributing as before.

These events launch the piece in an energetic, forward-looking manner. The clarinet riff establishes a definite quarter-note pulse that stays with me for a while, even when the clarinets are silent. The rhythmic contrast between the fast clarinet notes and the slow bell notes means that during the moments when the bell rings alone, I have a strong sense of anticipation — I expect the pulsed notes to come back soon. The wide registral separation between the two textural elements heightens the suspense: it's as if I glide through the air while the bell rings, and then I drop to the earth when the clarinets jump in.

So it's with some surprise that I hear the fifth bell chord, a repetition of the first, arrive without any clarinets. I wonder when the clarinets might return. Since the alternating two-chord bell pattern soon completes its third iteration (mm. 5–6), I expect this pattern to continue. It would be plausible for the clarinets to return at the start of the fourth iteration of the pattern, because the clarinets always play along with the first bell chord type (B $\flat$  on top), not with the second (A on top). However, not only do the clarinets fail to return, but the next bell chord is wrong:

the “A” chord sounds again, in place of the expected “B $\flat$ ” chord (m. 7). When the latter comes, as the following chord (m. 8), the clarinets are still silent. A subtle lengthening of the bell sustains — from seven quarters to eight quarters — makes the absence of clarinets all the more striking.

My account makes it seem that, when I listen, I consciously weigh alternative continuations and judge their plausibility in a logical manner, asking myself detailed questions about what might happen next. While it’s possible to do some of this while listening, my interaction with music tends to take place at a more subconscious level. I develop expectations, but these register mostly as a feeling of surprise when the music does not conform to them. I might not even understand the source of my surprise until I analyze the music later. This sense of surprise is perplexing, because I can still feel it even after repeated hearings. I know how the piece goes, but it’s capable of throwing me off every time I hear it. Surely this phenomenon is common to all the time-based arts. When watching a film for the second or third time, plot twists carry some of their original punch. I suppose that we enter into the world of the film and re-live the experience. In any case, even if my expectations are not the result of conscious deliberation while listening, it’s clear that they form an important part of my response to the opening of this piece.

When the clarinets twice fail to appear, I begin to let go of that particular expectation. A new instrument helps me forget about the clarinets: an eerie, wispy synthesizer counterpoints the bell strikes, which continue as before (Figure 4.2).

The musical score for Figure 4.2 is written in 7/4 time and spans measures 8 to 14. It consists of three staves. The top two staves form a grand staff, with the upper staff representing the piano and the lower staff representing the bell. The piano part features sustained chords with a lengthening sustain in measure 8. The bell part plays a rhythmic pattern of eighth notes. The third staff, labeled 'Synth.', provides a counterpoint with a long, sustained note in measure 8, followed by a series of chords and notes in measures 9-14. Dynamics are marked as *mf*, *meno f*, and *mp*.

Figure 4.2: *De Materie, Part IV*, mm. 8–14

Compared with the assured bell attacks, this new sound is tentative. The synthesizer enters repeatedly between the bell strikes, but it wavers in the length of time it waits to play after each bell chord. It begins by echoing the step-wise motion of the bell chords' top edge, but then it abandons this strategy, preferring to continue with no consistent patterning. No matter how long after a bell attack the synthesizer begins, it always stops suddenly at the next bell, as if the bell interrupts whatever the synthesizer tries to say. Sometimes the synthesizer doesn't even play between two bell chords.

By the time the synthesizer part is underway, I'm beginning to believe that the bell part will continue to ring its two chords over and over. The chords usually alternate, but occasionally they stutter, or stick to the same pitches instead of move back to the other ones, as expected. Even with this irregularity, the bell chords seem more and more familiar, and so my attention turns increasingly to the activity of the synthesizer part, which is much more variable and interesting than the bells.<sup>3</sup> When I'm listening, it's not clear whether the synthesizer part is heading somewhere in particular or, like a butterfly, just lighting on pleasant spots and then flitting elsewhere.

Yet my focus on the synthesizer is not without interruption. For just as my expectation of future clarinet activity has nearly faded, here they come again. Aligned with another appearance of the "B $\flat$ " bell chord, the low clarinets reprise their four-beat riff from the opening (Figure 4.3). The music following the previous clarinet outburst had turned from a tense, energetic, forward-looking tone toward a more static, floating feeling, as the direction taken by the music became less clear. The sudden return of clarinets serves to pull me quickly back to my initial state of heightened anticipation. It seems that the synthesizer focus was just a momentary

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<sup>3</sup>I have a similar experience when listening to music by *Autechre*, discussed in Chapter 5: I attend more closely to variable, faraway layers than to well-established, repetitive drum loops.

The musical score for Figure 4.3 consists of three staves. The top staff is for Clarinet/Bass Clarinet (Cl. BCL) in 7/4 time, featuring a sextuplet in measure 15. The middle staff is for Bell, showing sustained chords with dynamic markings. The bottom staff is for Synthesizer (Synth.), showing a few notes in measures 15 and 16, followed by rests.

Figure 4.3: *De Materie, Part IV*, mm. 15–21

distraction, and the real business of the piece has resumed. Perhaps the clarinet riff now will develop into a full-fledged character forceful enough to challenge the bell strikes.

But that doesn't happen. Instead, the synthesizer continues its lazy stroll. At first, of course, I believe that the clarinets will reappear with one of the "B $\flat$ " bell chords, and my expectation is strong. However, once the third opportunity for this return passes (m. 21), it seems less likely that the clarinets will come back in the near term. This is puzzling. What purpose do the clarinets serve, if they are not meant to develop into something more continuous and meaningful? Maybe it's more fruitful to think of their presence primarily as a way to influence the sound of the bell. When we hear the first bell strike, it's in the context of the pulse projected by the gruff clarinets. The way the clarinets project their pulse is extreme, with sextuplets leaping straight up from the bottom notes, which mark the beat. This makes the bell sound even more stationary than it would if it were unaccompanied. The contrasts in rhythm, register and character point up the qualities of the bell part, just as pairing a blue swatch with a bright red one makes the blue look different than it does when paired with a soft white swatch.<sup>4</sup>

<sup>4</sup>This is similar to what I said about the *coloration* effect of past events on current ones in the Feldman *Piano and String Quartet*. (See p. 29.)

The clarinets do more than merely act as a foil for the bell, though. They also keep me questioning the direction of the music during the long spans when clarinets are absent. If it weren't for the memory of the clarinet outbursts, I would just accept the lengthy bell passages as "the way the music goes." But, remembering the clarinets, there is always the lively possibility that another clarinet return might suddenly change the direction of the piece entirely. That this never happens doesn't really matter, because the possibility still informs my experience of the piece. It keeps me from trusting in whatever implications for future continuity I detect in the bell and synthesizer parts, since the clarinet riff may return at any time to disrupt their plans.

Perhaps the clarinet riff is like the *McGuffin* in a Hitchcock film. "McGuffin" is Hitchcock's term for something that motivates the characters and drives the story but might remain opaque to the audience.<sup>5</sup> For example, in *North by Northwest* the main character, Roger Thornhill, is mistaken for an undercover agent by foreign spies; they pursue Thornhill because they believe he possesses government secrets. The government secrets constitute the McGuffin. We never learn anything about the alleged secrets, but the search for them sets the plot into motion. Similarly, we can think of the clarinet riff as a driver of the action. The riff helps to launch the piece and returns twice to spur on the action. It exerts a strong influence on the music even when not present. Like a McGuffin, we don't fully understand the riff, but that doesn't matter, because its function is to propel the other characters and shape the action from behind the scenes.

Returning to the passage at hand, once the clarinets fail to reappear, the synthesizer becomes even less determined than before, remaining silent more frequently.<sup>6</sup> It's an odd feeling to begin concentrating on a promising new element of the tex-

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<sup>5</sup>Peter Bogdanovich, *Who the Devil Made It* (New York: Alfred A. Knopf, 1997), 502.

<sup>6</sup>For example, it rests for six measures starting in m. 37.

ture and then find that it doesn't pan out. That's what happens with the synthesizer, which I'm never able to situate in an extended, coherent narrative. I'm left wondering how to understand the continuity of this passage. Since the bell strikes keep coming in an undifferentiated stream of alternating chords, with no more clarinet interruptions, it's easy for me to lose track of where I am. I have a harder time remembering the sequence of events leading to the current moment, and I have no clear idea about where the music is heading, no strong predictions about the future. In other words, narrative listening begins to falter, and I become content just to savor the sound of each moment.

After studying the score, I can try harder to understand the sequence of events when I listen. I mentioned that the chord alternation sometimes stutters: the same chord appears twice in succession. It turns out that the stuttering interacts with the meter. Of course, it's very hard to hear the changing meter in this piece, because the measures are long, and the two lengths ( $7/4$  and  $8/4$ ) differ by only one quarter. Also, the notes in the measures rarely project a definite beat. But the meter in the score helps me to understand the role of the stuttering chords. For the first fifty measures, the score reveals a pattern of four  $7/4$  measures, followed by three  $8/4$  measures, and this pattern occurs seven times before breaking down. Initially, the "A" chord plays twice, in the last two measures of the pattern. This is true for the first two iterations of the pattern, but already in the third iteration, there is a difference: the stuttering is delayed so that it happens at the start of the *next* iteration. Figure 4.4 summarizes the chord activity, showing only the top line from the chords. The stuttering gets back on track by the end of the fourth iteration, but after this, the chord repetitions appear more frequently.

In the score, then, there is a kind of counterpoint between the repeating metrical framework and the chord stuttering, in which the relationship between the two becomes increasingly obscure. When I listen to the passage, the more frequent

Figure 4.4: *De Materie, Part IV*, mm. 1–41, top line from chords

and irregular stuttering, combined with the intermittent contributions of the synthesizer, makes me feel lost, and that feeling tends to inhibit my expectations. I become a more passive listener — with respect to the “plot” of the music, if not to the sonic qualities of the moment. So I arrive at a paradox of sorts: when studying the score, I think of the music as purposeful and predetermined, but when listening to the piece, the sequence of events begins to seem random, and I turn away from narrative listening.

Among the perplexing aspects of this passage is a grand pause (at m. 40). This interrupts the music in a way that does not leave me waiting anxiously for the continuation. The import is different. The music seems just to stop in a random spot, with no discernible preparation. The pause reinforces the feeling of being lost that has already begun to set in, as I give up following a meaningful story and settle instead for appreciating the crisp bell sounds and the wheezing synthesizer. If the music were to continue in this manner for much longer, I might enter into the sort of meditative listening I experience with the Feldman *Piano and String Quartet*. But soon after the pause, the addition of a high  $D\flat$  to the top of the bell chords makes me believe that something new is about to happen, even though the other characteristics of the music remain the same.

Something new does happen: after a second grand pause, again mysteriously placed, we finally hear some different bell chords (m. 52 ff, Figure 4.5). These

The musical score for Figure 4.5 consists of three systems of staves. The first system covers measures 52 to 59. The second system covers measures 60 to 68. The third system shows the string accompaniment for measures 60 to 68. The piano part is labeled 'Bell' and features a series of chords in the right hand and accompaniment in the left hand. The string part is labeled 'Strings' and enters at measure 60 with a sustained chord marked 'niente' and 'p'.

Figure 4.5: *De Materie, Part IV*, mm. 52–68

have a lower registral center of gravity, which prevents this new passage from seeming like a straight-forward attempt to ratchet up the energy level. The top line continues the half-step alternation from the older chords (B $\flat$ –A), but now between A $\flat$  and G. Soon, the line sinks further, to G $\flat$  and F, with supporting notes barely altered. The “A $\flat$ ” chord returns (m. 60), holding for longer than normal, while strings enter with a sustained chord that crescendoes to the next bell attack. The stage is set for a repetition of the A $\flat$ –G–G $\flat$ –F pattern. But in place of the F, there is a return (at m. 67) to the opening “B $\flat$ ” chord (with a minor difference in register and orchestration), followed by another grand pause (m. 68). The music delimited by this pause and the previous one seems more like a coherent phrase than anything heard so far, owing to the more active pitch motion, the sense of arrival on the final chord (even if not really anticipated), and the pauses themselves. All of this rekindles my narrative listening attitude.

The next passage begins what feels like a long, slow climb up a mountainside. The alternation between successive bell chords becomes an alternation between

the high bell chords and new low chords played by guitars, bass and piano (Figure 4.6). Instead of fixating on one chord type, the two layers of this alternating

The image shows a musical score for measures 70-81 of *De Materie, Part IV*. The score is in 7/4 time and consists of two systems. The first system (measures 70-75) features three staves: Pno. 1 (hp., glk, vib.), Pno. 2, guit. 1 & 2, bass, and a 'Bell' part. The second system (measures 76-81) continues the same instrumentation. The music is characterized by alternating high and low chords, with a dynamic marking of mp.

Figure 4.6: *De Materie, Part IV*, mm. 70–81

pattern begin to shift between different chords, often moving by step in some lines. Before long, the pace quickens (m. 84). Throughout this passage and the next, in which winds join the alternating chord texture, the impression is of a deliberate journey, culminating in a loud climax (end of p. 15 in the score). After this, the chord alternation continues at a faster rate, the chorus enters and the climb begins anew. Though there are a few rest stops along the way, the music proceeds clearly to the pivotal moment, near the end of the piece, when Madame Curie begins to speak.

Listening to this long middle section of the piece is different from listening to the opening. In the beginning of the piece, everything is new, and the direction of the music is unclear. For a while, I listen to each bell strike with keen anticipation, wondering whether this one will tell me more about where the piece is going.

The music holds on to its secrets, however, and so that way of listening begins to seem unproductive. But just when I might gravitate toward meditative listening, the music becomes more phrase-oriented. I listen again in a narrative way, but with a more calm, less event-by-event attitude. I'm in it for the long haul, not so concerned about whether a particular chord will spark a change of direction. Even if I don't know exactly where I'm headed, it seems that the music is moving slowly but surely toward a far-off destination.

This prediction turns out to be right: we finally arrive at a very loud, full passage (p. 22). But that's not the end of the piece; Madame Curie soon appears, and the texture changes. This odd final episode works well because it's so different from what I expect as the music winds down from the previous climax. The ensemble settles on a crunchy, but restful, A dominant seventh chord (p. 25). Suddenly I hear a loud return to the opening bell strike, which heralds Madame Curie's entrance. The bell chords are very familiar, though I haven't heard them for nearly twenty minutes, but the spoken text, punctuated by more bell strikes, is unusual and refreshing after all that thick ensemble music. The bell chords no longer drive the music forward — now it's the speech, rather than the bell, that is central. But the bell chords, with their new raspy, jangly windup, sound more menacing and powerful than before.

It's hard to overstate the impact of the final tutti chord, which tops all the others for sheer volume and brilliance. It makes for a fitting end to this movement, and, at the same time, evokes both the chords that open the whole four-movement work and the harmonic flavor that pervades so much of the music of *De Materie*. When I hear the last few moments of this piece, which are so emblematic of the entire work, I listen finally in a way that is almost out of time, somehow encompassing the two-hour span of *De Materie* within one dazzling bell strike.

The ceremonial return of the bell chords at Madame Curie's appearance points up an essential difference between *De Materie* and Feldman's piano quintet. The Andriessen piece constructs a narrative that, despite digressions, moves clearly from the opening bell strikes to their modified restatement near the end. The Feldman piece is hard to understand as a narrative. Because there are moments in the Andriessen when the narrative seems to lose force, the piece is not as thoroughly narrative as, say, a Beethoven string quartet. But the extended meditative listening that is possible in the Feldman does not have much of a chance to take hold in *De Materie, Part IV*.

## Chapter 5

### Autechre

I'd like to turn now to some music that is worlds apart from Feldman, and even from Reich and Andriessen: contemporary electronic dance music. This music often features multiple layers of repetitive activity, from conventional drum tracks to strange, noisy synthetic sounds. My interest centers around the interaction between layers and, especially, the ways that their changing relationships affect how I listen.

Most electronic dance music is, of course, designed only for the dance floor. So sitting still and listening carefully to it — as I've been doing with Feldman and the others — seems a bit odd. It's not concert music; it has a very different social purpose and context. The issues raised by its context are interesting but beyond the scope of this essay. So I choose music by Autechre, an English electronica duo that hopes their music works for listeners as well as dancers.

We've grown up with club music. But we never listened to it in a club setting. We mainly listened to that music at home, or on our walkman. That may be the single most important reason why we never make music that's geared to the dance experience [...] Look, we are very much interested in the concept of rhythm. However, we think that you can also move internally, not just externally.<sup>1</sup>

Given this statement, I believe I can avoid the charge of taking their music out of context when commenting on it from the listener's chair.

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<sup>1</sup>Wilfried Jans, "Autechre: Listen to our Music," trans. Helen Adriaens, *Gonzo Circus* 18 (1995), <<http://www.steady-j.ukdeejays.com/gonzo.txt>>.

When I listen, I notice that the obsessively repetitive nature of the music can play tricks on my attention. Sometimes I listen as if the music were telling a story, pulling me along a narrative path. Other times I listen in a less controlled way, letting my attention drift from layer to layer as the music runs along, as if I were viewing a painting and letting my eyes wander across the canvas. Often I find that a layer can enter or exit without me noticing it, because of my momentary fascination with another layer. And that I sometimes concentrate on a quiet background layer, even while an aggressive foreground layer pounds away.<sup>2</sup> Though patterns repeat, their color can change subtly, and even when a pattern doesn't change at all, it can sound different depending on what layers accompany it.

But this is all very abstract. Let's listen to some music to explore these impressions in detail. I've selected pieces from two Autechre releases, *Tri Repetae* and *Chiastic Slide*.<sup>3</sup> There are common threads among these pieces — mainly the presence of pulsed, repetitive layers — but they vary in many respects. My intention is not to provide a full analysis of each, but to point out how they engage the ideas about listening mentioned above.

\* \* \*

When I've written music that contains a repeated pattern, I inevitably ask myself, "How do I get out of this?" If the music is headed to some definite goal, then I might have the pattern break up at the destination, at the same time that other elements of the texture change. That's one very common way to "get out of it." But it's not the only way: Autechre suggests another possibility, which relies on the ability to manipulate a listener's attention to the various layers making up the

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<sup>2</sup>I use "foreground" and "background" by analogy with the visual arts to suggest an aural impression of distance, rather than to claim a hierarchical structure. (See p. 73 for more on this.)

<sup>3</sup>Autechre, *Tri Repetae* (Warp CD38); Autechre, *Chiastic Slide* (Warp CD49).

texture. In *Cipater*,<sup>4</sup> a layer with a recurrent sound disappears without my realizing it until after it's gone. This happens because, between the entry and exit of this sound, I'm distracted by another, more disturbing, repetitive sound. To show how this disguised exit works, I must describe some of the details of the music.

The sound that does the disappearing act is a brief shiny, synthy crescendo with sudden cutoff.<sup>5</sup> It enters as if commenting on the main melodic line. The first instance of the shiny sound fills up some of the gap between iterations of the repetitive melodic line, and so it comes across as a reaction to what the melody has just said. But the two layers begin to form a more interesting relation, because their rhythmic cycles have different lengths. The shiny sound repeats every three measures, while the melodic line repeats every four measures, with the consequence that the shiny sound appears at different stages in the progress of the melodic line. This makes them seem more independent than the two elements of a predictable call-and-response setup. Since other aspects of the texture — the melodic line, the bass line and several noisy drum parts — have been repeating for a while already, the appearance of the shiny crescendo draws my attention, and I focus on it more than I might if the other layers were not repeating so relentlessly. It's not just a filler part.

But what happens next distracts me so much that my former center of attention later slips away unnoticed. A new layer slowly fades in, with a continuous, pulsating, burbling sound.<sup>6</sup> It doesn't seem like much at first, but once it reaches full power, I find its qualities too striking to ignore. The new layer works against the grain of the established layers in two ways. First, it projects a repetitive rhythmic pattern that cuts across the meter. The pattern is hard to pin down, but seems

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<sup>4</sup>Track 1 on *Chiastic Slide*.

<sup>5</sup>This sound, pitched at F5, enters around 1:32.

<sup>6</sup>This layer enters around 2:47 and grows to full volume within 15 or 20 seconds.

to make a cross-rhythm that emphasizes dotted quarters against the beats of 4/4, give or take a few kinks in the line. More forcefully, the pitch of this layer — a prominent E $\flat$ 4, alternating with a quieter C4 — rubs against the prevailing D minor harmony (or A phrygian, depending on how you look at it). All this makes for a menacing presence. The new layer threatens to disrupt the continuity the others have built.

And that is exactly what happens. As the pulsating pattern grows in strength, some of the drum parts drop out, calling more attention to the new layer, even as the bass and melody lines continue as before. When the kick drum resumes, it pounds out a more active rhythm, and before long a seamless metric modulation pulls the rug out from under the original layers.<sup>7</sup> The bass and melody end at the tempo change, while the drum parts adapt to the new tempo. The pulsating layer is now fully in control and has effected dramatic changes. The new tempo seems to derive from that layer's rhythm, though the pulsation still has an excitingly ragged feel within the new grid. Later, when the bass part reenters, it plays in E $\flat$  minor, taking as tonic the pitch from the pulsating layer that was so out-of-place before.

Another indication of the power of the pulsating layer: I followed it so intently that it was many listenings before I understood the clear role of the hi-hat part in making the metric modulation work. The hi-hat has been playing mostly steady eighths throughout, but begins playing continuous sixteenths after the pulsating layer heats up the texture. When the metric modulation takes shape, these sixteenths become sextuplet sixteenths in the new tempo, serving as a rhythmic guide for the other parts. The hi-hat soon loosens up, and after a while fades into the

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<sup>7</sup>The kick drum drops out at 2:56 and resumes at 3:03; the metric modulation starts around 3:36. I give the drum parts standard drum kit names — kick, snare, hi-hat — in line with the roles they play in the drum layer, even though the sounds used to play these parts are noisy, distorted, unnatural stand-ins for real drums.

background.<sup>8</sup> So even though the hi-hat could be heard as bringing about the tempo change, I still think of the pulsating layer as the prime mover.

Meanwhile, what has happened to that shiny sound that earlier captured my attention? My first several times listening, it never occurred to me that this sound had ceased. Once I realized it was gone, it surprised me that I hadn't noticed. In one sense, this shouldn't be so surprising: the ample silence between iterations of the shiny sound makes it more natural for it to stop unnoticed, since I'm used to there being silence in that layer even while the layer is active. But because this sound had been the center of my attention, its stealthy disappearance still fascinates me. The growing drama surrounding the pulsating E♭ layer makes it possible for the shiny sound to disappear in my attention before it actually disappears — a “psychological disappearance.”

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In Western classical music, it's common for an instrument to stop playing after the end of a phrase, often with a sense of harmonic and melodic closure. The cello part at the beginning of the *Eroica* Symphony is typical in this respect (Figure 5.1). After the opening chords, it plays the tune before slipping into a bass role near the end of the phrase. Following the V–I cadence, it rests for a few measures. In repetitive dance music, there's no such harmonic and melodic closure, because there's no harmonic and melodic motion, other than a short pattern that cycles repeatedly. An instrument in this music may stop playing at the end of a cycle, but the choice of which iteration is its final one can seem arbitrary to a listener. The way a part leaves the texture is important, though. An instrument might fade out of the texture, like the hi-hat part in *Cipater*. Or it might simply stop playing,

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<sup>8</sup>The hi-hat doubles its speed around 3:14, well before the metric modulation begins (3:36). The hi-hat recedes into the texture around 4:50.

3  
 p cresc. sf  
 10  
 p cresc. p  
 I<sup>4</sup> V<sup>7</sup> I

Figure 5.1: Beethoven, *Symphony No. 3 in E-flat Major ("Eroica")*, Op. 55, mm. 3–16

disappearing under the cover of a more dominant part, as with the shiny synth sound in the same piece. In both examples, the listener is probably meant to lose track of the part while focusing on something else.

But what about when the stopping part is unmistakably in the foreground? In another Autechre piece, *Stud*,<sup>9</sup> several repeating parts stop together suddenly, without any clear motivation, while another continues as before. Unlike the way that the timing of a phrase ending in classical music can be easy to predict, the moment when these parts stop would be hard to guess in advance. That's because all the parts have been repeating for quite a while, and there's no sense of an impending arrival, such as could be created by a crescendo or a new part joining the others. They just stop.

The musical sense of this sudden-stop behavior is perplexing. I'd like to investigate it, but first let's become more familiar with the various parts of the texture. Figure 5.2 gives brief descriptions of them, each preceded by the CD timing of its entry. Once a part enters, it stays in the texture until the stopping moment I want to discuss.<sup>10</sup>

Some of my interest in this piece lies in the kinds of repetition engaged in by these parts. The drum track repeats literally throughout, while the swirling metallic sound seems to wax and wane in an irregular manner, rather than repeat a

<sup>9</sup>Track 5 on *Tri Repetae*.

<sup>10</sup>There is an exception: the bass synth drops out briefly around 2:27. I discuss this below.

- 0:00 swirling metallic waves (on G), no discernible pattern
- 0:19 noisy “drum” track, with kick, hi-hat and snare stand-ins, literally repeating
- 0:39 explosive attacks on beat four (two kinds alternating: steam blast and video game space gun)
- 0:56 tremolo bass synth riff, sometimes with long higher sustains, strong dotted quarter emphasis (A - A - F - D - B $\flat$  - A)
- 1:10 clicks (almost finger snaps), on the beat
- 1:36 tremolo chord (E, C, B $\flat$ ), sustained
- 2:33 helicopter sound, sustained, with intermittent entrances

Figure 5.2: Layer entrances in Autechre’s *Stud*

specific pattern. Other parts lie between these extremes. The bass synth clearly repeats its riff, but each iteration is subtly different — some notes are clipped shorter, a different high sustained pitch receives emphasis, or a filter opens to brighten the sound. But changes of this sort don’t seem to point ahead; they just make the part sound alive.

Most of the parts are more interesting to follow than the drum track, once I grow accustomed to it. So even though the drums are in the foreground, I soon stop listening carefully to them. I take their robotic repetition for granted. Instead, I listen to the parts that are more mysterious, harder to take in. The finger snaps, though simple and repetitive, are buried in the texture just enough to make me lean forward to hear them. I can’t tell if they are always near the left side, or if they sometimes bounce from one speaker to the other. The sounds that aren’t continually present — tremolo chord, helicopter, steam blast — often attract my attention whenever they recur. I wonder whether there is something different about them this time. The result is that I begin to focus on everything but the drum track.

Then everyone stops. Well, not everyone: the bass riff continues, and the helicopter, having laid out for a while, reenters just when the others stop (at 3:30).

But the sudden change is powerful and unexpected. Now that the drums have stopped, it's striking that they're absent. I think about the drums more when they've stopped than I do when they're chugging along. I still maintain a sense of the meter as I listen, automatically letting my internal metronome continue, but this fades the longer the music fails to project clear beats. Without the propulsive force of the drum track, the bass riff seems adrift, floating aimlessly.

The bass part sounds different, more exposed, than it did before. Though the helicopter hovers continuously, the absence of other noisy parts, like the drums, finger snaps and steam blasts, means that the brighter aspects of the bass part are no longer masked as much. Without other distractions, it's more obvious that the last note of each iteration of the bass pattern rings differently: sometimes fairly short, other times so long that it runs into the next iteration. Also, the A phrygian feel of the bass line (with its B $\flat$  - A succession) stands alone, unaffected by the tremolo chord, whose B $\sharp$  clashed with the bass.

It shouldn't be surprising that one part sounds different alone than when accompanied by other parts. Everyone's had the experience of humming a familiar tune and imagining, usually subconsciously, other parts that affect it harmonically. Think of the tune to Weill's "Mack the Knife" (Figure 5.3). When you sing this to

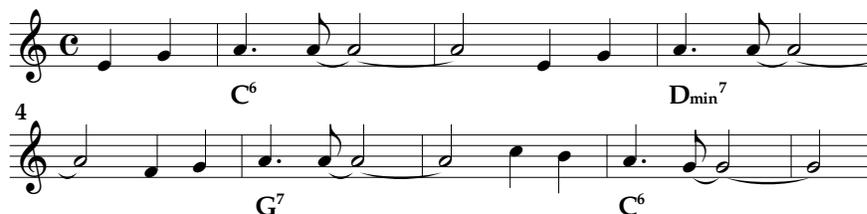


Figure 5.3: Brecht/Weill, "Mack the Knife," from *Threepenny Opera*, mm. 1–8

yourself, the supporting chords you imagine color the tune in a particular way, and the chord changes make each instance of the repeated opening motive sound different. If someone heard you singing, but didn't know the tune, they might

think it was a heavy-metal song, with the stressed A as tonic and no changes of chord. When I sing our bass synth part, the rhythm of the drums and the pitches of the tremolo chord are part of the flavor I'm imagining. But this flavor is missing when the bass plays alone in the piece.

Let's return to the sudden stopping of the drums and others. It comes without obvious preparation, and so it seems puzzling. The bass, as if oblivious to any change, continues much as before (although it sounds different for the reasons mentioned above). The drums and others stay silent for a long time, well over a minute — strange for music that had such momentum. It's hard to escape the thought that this change happens by chance, and that sudden stops might happen at any time.

It's not that simple, though. I've said that the parts stop "without any clear motivation" or "obvious preparation." That's an impression I've had when listening, but surely it's not so arbitrary. Listening more closely, I notice an interesting interplay between the helicopter and the other parts. It might have a bearing on this stopping moment that seems so odd. Figure 5.4 gives a summary of the activity — entrances and exits — for the whole piece. The helicopter first enters right after the bass drops out momentarily; it sounds quietly for a few seconds, stops, and then sounds again a bit later. When the bass returns, with helicopter silent, I imagine that I won't hear the two together. But then the helicopter enters for a bit longer than before, though only once until the other instruments stop. Its appearances are so sparse compared to the others. It's as if the helicopter can't cut through while everyone else is playing, even though it tries.

But when the drums and others stop suddenly, the helicopter enters immediately, with a fuller sound than before. It takes advantage of the absence of the more aggressive drums to assert itself. It hovers over the bass, which plays along as if nothing has happened, and sounds steadily for a long time. Once the drums reen-

0:00	swirling metallic waves enter
0:19	drum track enters
0:39	blasts enter
0:56	bass synth riff enters
1:10	finger snaps enter
1:36	tremolo chord enters
	[all six layers now active]
2:27	bass synth drops out
2:33	helicopter enters (for four seconds)
2:46	helicopter plays again (for two seconds)
2:52	bass returns
2:59	helicopter again (for six seconds)
3:30	drums, snaps, blasts, metallic waves, tremolo chord ... all stop suddenly; but bass continues
	helicopter plays again, with fuller sound; plays continuously for over a minute, until 5:13
4:33	drums reenter
5:07	finger snaps reenter
5:13	helicopter stops; blasts reenter (sporadically)
5:19	tremolo chord reenters
5:45	helicopter plays continuously until others stop again
6:05	swirling metallic waves reenter
6:49	everyone stops, except bass and tremolo chord, who continue until the end (9:28), eventually disappearing in a wash of reverb

Figure 5.4: Summary of activity in Autechre's *Stud*

ter and the others regroup, the helicopter is able to stay in continuously (starting around 5:45), now that it's developed momentum.

If you believe my story about the interaction between the helicopter and the other parts, the piece might seem more purposeful, less puzzling. It might make more sense. But that's not the only way to listen. It could be just as attractive to think of the piece as *not* purposeful, free to stop and start without any motivation

or consequence, carried along just by its vigorous pulse. I find that I can listen either way, if I put myself in the right frame of mind before, and that both ways are enjoyable. In any case, the helicopter story makes it clear that this music has more subtlety than you might expect from something so repetitive.

\*            \*            \*

I've been talking about my reaction to local events — a sound disappearing without me noticing, a sudden drop-out that seems perplexing. Now I'd like to address the ways that I hear these Autechre pieces in the large.

In his book, *Sound & Structure*,<sup>11</sup> John Paynter likes to talk about the flow of music in terms of “progressive” and “recessive” traits.

The flow of musical time is controlled by progression (moving towards moments of tension or excitement) and recession (drawing away from tension).<sup>12</sup>

All music creates the sensation of time passing. Most commonly this is achieved by repeating, extending and transforming thematic material — melodic/rhythmic/timbral figures and motifs — controlled by various progressive and recessive devices which produce a feeling of movement and direction.<sup>13</sup>

In an analysis of some familiar popular and folk melodies, Paynter associates progression with greater note density, shorter durations and rising contours, and associates recession with lesser note density, longer durations and falling contours. Paynter shows how the melodies balance progressive and recessive traits in the course of creating a sense of musical flow.<sup>14</sup>

Now this is not the most profound theory in the world, but still it can be useful to think about listening to repetitive music in light of these terms. Let's assume

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<sup>11</sup>John Paynter, *Sound & Structure* (Cambridge University Press, 1992).

<sup>12</sup>Ibid., 175.

<sup>13</sup>Ibid., 196.

<sup>14</sup>Ibid., 206–7.

that when music consists primarily of progressive elements, we listen in a forward-looking way, expecting the story to continue unfolding and treating everything that happens as somehow leading to a culmination. When recessive elements predominate, we sense the story winding down or perhaps even begin to listen in a non-narrative way, just savoring the qualities of events without expecting them to lead somewhere.

Repetition presents a special problem for the theory, since it can be viewed as having a progressive or recessive effect, depending on the musical context.

Repetition can be recessive if the ear tires of it and wants something new (new = more excitement = progression). On the other hand, a repeated figure that is getting louder all the time is clearly progressive.<sup>15</sup>

The effect of a drum track in repetitive dance music might be hard to judge in these terms. The incessant, literal repetition of most drum tracks should have a recessive effect, since as time goes on, no new information is presented; nothing is added to the story. We might even grow tired of it. Yet the propulsive, obsessive quality of the drum track, which is due in large part to the repetition, would seem to be highly progressive, providing a sense of forward motion that can drive the action of a piece. Perhaps the way to reconcile this apparent contradiction for the Autechre pieces is to say that a *literally* repeating drum track — even one that is very energetic — is potentially recessive the longer it continues: because of the repetition, we become habituated to the track, and our ears then seek out other parts that might take up the story line.

How can this help with describing my experience of the overall shape and continuity of an Autechre piece? Let's find out by listening to *Dael*.<sup>16</sup> The piece opens with an intriguing percussion layer: a low, raspy lion's-roar sound that,

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<sup>15</sup>Ibid., 122–123.

<sup>16</sup>Track 1 on *Tri Repetae*.

when stretched to the breaking point, triggers a sharp snare hit and reaction from a synth chord.<sup>17</sup> After repeating several times, this pattern is joined by a noisy metallic drum-kit layer. While the first layer projects beats (let's say they're quarter notes in 4/4 time), the second layer works consistently with an eighth-note division of the beat, resulting in an energetic double-time feel when this layer enters. Furthermore, the entrance seems to come early. When I listen to dance music (and possibly much other music), I assume that groups of four or eight measures are normal. If a new part were to enter just after the first four or eight measures, it would be unremarkable. But this second percussive layer enters in the middle of the seventh measure, jumping the gun on what would be a normal entrance in measure nine. So when this new layer enters, the piece really seems to take off. At this point, both layers have a progressive effect.

The music proceeds by introducing more new layers, one after another.<sup>18</sup> It's a little like listening to a fugue, in the sense that each entrance advances the story; you want to follow along and see what happens. Of course, new layers in *Dael* are not imitations of earlier layers, but rather completely new characters. First we hear a bass line, added to the two percussion layers. Then comes a creepy distorted vocal part, with unintelligible speech; a soft, sustained sound that punctuates each measure; a synth bass line, complementing and eventually crowding out the first bass part; and a high synth melodic pattern. Some parts (bass, synth bass and high synth) begin sparsely and then add notes to fill out their pattern, contributing to the sense of growth established by the sequence of entrances. The process builds

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<sup>17</sup>Like many Autechre "drum" layers, this one comprises quite a few precisely synchronized sounds, including a synth bass drum thud and a metronome click, in addition to the three sounds already mentioned. It's fun to listen carefully to all these sounds and understand their rhythmic relationships, an activity the repetition of the pattern encourages. Unfortunately, it would take us too far afield to engage here in lengthy description of every sound.

<sup>18</sup>Adding layer upon layer in succession is a technique common to many other Autechre pieces, including *Stud*, discussed above.

up a dense texture, since all layers stay in once they've entered. It's so dense that it becomes difficult to hear all of the lower parts clearly, because many overlap in that register. As each new character enters, it changes the way I hear the other parts, and convinces me that the story is still developing. In other words, the entire process is progressive.

Yet after the high synth melodic part enters, no new characters appear. In many fugues, we would reach a cadence after a number of entrances.<sup>19</sup> But here the music keeps cycling, each layer repeating its pattern with little or no change. We reach a steady state of sorts. The longer this goes on, the less progressive it becomes, and the more my way of listening evolves. Instead of looking forward to an arrival of any kind, my attention wanders among the various parts, enjoying their different flavors. Now and then unique events — for example, extra percussion sounds, or a momentary stop in a drum track — promise change, but these prove not to have any traction. So we come to a lively and danceable stretch of music, but one not progressive enough to suggest an impending goal.

As this passage continues, I notice that my attention keeps returning to the high synth part. Softer and more ethereal than the others, it drifts in and out of sight. The stronger, more foreground, percussion layers begin to seem too straightforward to sustain my interest — despite their attempts to pull me back. I'm more drawn to the high synth, which rides serenely above the commotion. Although I don't realize it while listening to this passage, the high synth turns out to be important for the ending of the piece.

After a while, the two percussion layers stop suddenly.<sup>20</sup> The vocal part continues for a bit longer, dissolving in echoes. The initial bass part loses its lower octave

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<sup>19</sup>For example: Bach, *WTC I*, C major fugue, cadence in A minor (m. 14).

<sup>20</sup>They stop at 5:28, leaving the lion's roar sound trailing for a few more seconds. The fourth layer (brief, intermittent, sustained sound) also drops out here.

and blends so closely with the synth bass that it's easy to miss the moment when it halts (at 6:12). That leaves the two synth parts: bass line and high melodic pattern. They cycle aimlessly while their brightness fluctuates; then they fade away.

So the high synth part I was following in the previous passage, along with the bass synth, becomes the focus for the final section. The pitch world of the piece makes this appropriate, for these synth parts overlay the C minor implication of the initial bass part — a tonic-dominant-spanning C - A $\flat$  - G that establishes the tonality of the opening — with a clear A minor feel, transforming the harmonic environment. Once the synth parts dominate the texture, they force the original bass part's pitches into an A minor context (Figure 5.5). It makes sense that these

The figure shows a musical score with three staves. The top staff is labeled 'High synth' and is in treble clef with a 4/4 time signature. The middle staff is labeled 'Synth bass' and is in bass clef with a 4/4 time signature. The bottom staff is labeled 'Bass' and is in bass clef with a 4/4 time signature. A bracket on the right side groups the 'High synth' and 'Synth bass' staves, with the label 'project A minor' next to it. The 'Bass' staff is labeled 'projects C minor' on the right. A dashed line labeled '(clash)' points from a note in the 'Synth bass' staff to a note in the 'Bass' staff.

Figure 5.5: Autechre, *Dael*, 4:21–4:27

A minor parts should prevail in the end.

When the percussion layers drop out, I think it may only be temporary, given that the faster-paced drum track has stopped briefly twice before. The suspense stays with me until it no longer seems likely that the drums will return. This makes the onset of the final section seem gradual, despite the sudden stop. So we ease into a passage in which all the energy built up over the piece slowly drains. The final section, then, is decidedly recessive.

The overall shape of *Dael* is clear: three sections whose activity suggests an arc from progressive to recessive characteristics, as presented in Figure 5.6. I'm careful to avoid describing the middle section as recessive, since that would imply

section	activity	progressiveness
opening	build-up of layers	progressive
middle	nearly a steady-state, all layers cycle	neutral
final	most layers stop, high and low synth parts fade	recessive

Figure 5.6: Overview of Autechre's *Dael*

that the energy is dissipating already. There's not much new in this section, but it still maintains a good deal of forward momentum. Only during the final section does the tension relax.

Yet this description of an arc doesn't capture the most fascinating aspect of the piece for me: the way the high synth part comes to prominence. It enters at the end of the opening section as a soft background part, barely audible above the din of the two percussion layers and distorted vocal part in the foreground, which ceases only in the final section. The magic is that this high synth part attracts my sustained attention long before the final section arrives.

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Relations between foreground and background layers form an important part of most Autechre pieces, and often they figure in the overall shape of the music. Before exploring these relations, let me clarify my use of the terms "foreground" and "background." By analogy with two-dimensional visual arts like painting, a foreground layer is one that seems close to the listener; a background layer is one that seems distant. This distant placement is achieved by some combination of the following characteristics, relative to foreground layers: lower volume, darker timbre and deeper reverberation.<sup>21</sup> It's possible to make an extreme spatial contrast

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<sup>21</sup>Dodge and Jerse, 310.

by employing all three characteristics — for example, opposing a loud, bright, non-reverberant layer with a soft, dark, heavily reverberant layer. But this is rarely the case in practice. Distance is, of course, a continuum, not something absolute.

Consider *Landscape with the Fall of Icarus*, a painting by the sixteenth century Flemish master, Pieter Brueghel the Elder (Figure 5.7, p. 75).<sup>22</sup> In the immediate foreground, we see a farmer plowing; in the far background, we see the sun rising. Between these two points are other people and objects at varying distances from the viewer: the shepherd just beyond the farmer, the ships beyond him, the city in the distance, and so on. Brueghel arranges the scene so that some things that are farther away are also lower than our position on the hill above the farmer. Also, different planes of activity are parallel to a diagonal line extending from the lower right corner to the tree near the upper left corner. So the organization of space is much more complex than a simple application of the terms “foreground” and “background” would lead one to believe.

Can music achieve anything like the richness of spatial depth apparent in *Icarus*? Our ears are very sensitive to the location of some sounds, and there are ways to simulate the distance and lateral position of sound sources in electronic music.<sup>23</sup> There are even ways to simulate sound sources above, below and behind the listener, though these effects are fragile, dependent as they are upon careful positioning of the listener with respect to loudspeakers. But it’s difficult to convey convincingly many different sound source positions simultaneously, at least with the clarity of the objects in Brueghel’s painting. Perhaps the analogy between the simulation of space in music and in painting is stretched. Still, it’s worth thinking about.

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<sup>22</sup>Pieter Brueghel the Elder, *Landscape with the Fall of Icarus*, c. 1555, Musees Royaux des Beaux-Arts, Brussels, Belgium. Photo credit: Scala / Art Resource, New York. Used by permission.

<sup>23</sup>Dodge and Jerse, 308–314.



Figure 5.7: Brueghel, *Landscape with the Fall of Icarus*

As I scan the surface of Brueghel’s painting, I notice the tiny figure of Icarus tumbling into the sea near the lower right corner, legs flailing. The shepherd and farmer (and horse) have their backs turned to Icarus, and at first I’m as unaware of his presence as they are. The farmer’s bright red sleeve attracts my attention,<sup>24</sup> and my eye naturally follows the diagonal line, mentioned earlier, in the direction the farmer and shepherd face, away from Icarus. Yet after finally seeing Icarus, it’s hard to ignore him; my eyes keep returning to the site of his demise. This seems appropriate, for Icarus is the subject of the painting, after all. But it’s interesting that his presence is so downplayed. Brueghel’s idea must have been to set this Greek myth about over-confidence in the context of everyday pastoral life — bringing Icarus down to earth, so to speak. The way to accomplish this was to make the figure of Icarus so much less prominent than those in the foreground, while ensuring that the viewer would eventually discover it.

As in painting, what appears in the distance of a musical “landscape” may be just as compelling as — or even more so than — things that are closer. I’ve already discussed one such case: the high synth part in *Dael*, which enters in the background among aggressive foreground percussion layers, yet attracts most of my attention nonetheless.<sup>25</sup> Another Autechre piece, *Overand*,<sup>26</sup> has simpler textures than *Dael*, but more subtle relations between layers. Figure 5.8, which shows entrances and their CD timings for the whole piece, may help you to identify the sounds to which I refer below.

The piece begins with a synthesizer ostinato — a full, clear sound that combines sustained pitches (in D phrygian) with their rhythmic echoes, forming a constant eighth-note grid against the stronger dotted quarter attacks. The ostinato solidly

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<sup>24</sup>You can’t see this on my black and white reproduction of the painting, but the red of the sleeve is strikingly different from the color of anything else.

<sup>25</sup>The passage begins at 3:33. My discussion begins on p. 70.

<sup>26</sup>Track 9 on *Tri Repetae*.

0:00	synthesizer ostinato begins
0:32	radio interference begins
1:20	muffled drum kit rim shot enters
1:36	lower parts of drum kit enter
2:08	bass enters on downbeat
2:45	deeply reverberated layer enters, behind radio interference
3:45	ostinato stops repeating, leaving a trail of long sustains
4:00	radio interference lays out
4:16	bass lays out
4:48	radio interference and bass return
5:20	ostinato returns
6:24	drum kit drops out (rim shot lasts a few more measures)
6:52	ostinato and bass drop out, leaving one more instance of radio interference

Figure 5.8: Summary of activity in Autechre's *Overand*

occupies the foreground. After several iterations of the ostinato pattern, a softer, thinner, brighter, higher-pitched sound enters. This grows into something mysterious that sounds like radio interference, with tantalizing hints of distorted speech. Since it's a bit softer and more reverberated than the ostinato, it sounds more distant. The radio interference comes in bursts, once every eight measures, alternating at two pitch levels. Whenever it enters, I listen carefully to see if I can pick out the words or any new details in the sound. In doing so, I listen "past" the layer of the ostinato to reach a background layer. This is somewhat like viewing that Brueghel painting: the radio interference (Icarus) in the background captures my attention, drawing me away from the more prominent ostinato (farmer) in the foreground.

The ostinato soon spawns a very understated, muffled drum kit part, joined later by an intermittent low bass figure. These additional parts are in the foreground along with the ostinato, though the drum kit is softer. The drum kit so seamlessly grows out of the ostinato echoes that it takes a while for me to real-

ize it's there. Behind the radio interference, a new layer appears, with soft, sharp attacks, very deeply reverberated. This new background layer makes the radio interference more of a middleground layer, since the two layers seem to be sounding across distinctly different distances.

After a while, the ostinato, radio interference and bass drop out, so that the drum kit, in the foreground, and the deeply reverberant background layer are alone. Despite the drum kit's darker sound, it seems closer to me than the other layer, due to the extreme difference in reverberation.<sup>27</sup> But since the drum kit is repeating robotically, and the background layer is irregular and harder to grasp, I focus on the latter. I don't really believe the drum kit will change, so I let it coast by without thinking about it. That's not to say that I'm unaware of it — that I don't follow more than one layer at a time. It's more that I stare at the background layer, while I keep the drum kit in my peripheral vision.

In these three Autechre examples, I find I have a similar response to their foreground and background layers. In *Dael*, I focus on the high synth part behind the aggressive drum kit. In *Overand*, I concentrate first on the radio interference behind the ostinato, and later on the deeply reverberant sounds behind the understated drum kit. In each of these passages, I become habituated to a foreground part that is highly repetitive. That leads me to focus on a more changeable, and so potentially more interesting, background part. One might expect that listeners attend only to foreground elements — that background elements are there to affect you subliminally. This music by Autechre shows that it doesn't always have to be so.

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<sup>27</sup>Reverberation can be more powerful than other factors in simulating distance (Dodge and Jerse, 311).

A changing relationship between background and foreground layers can be at the heart of a large-scale idea for a piece. When listening to *Tewe*,<sup>28</sup> I sense a role reversal between the foreground percussion layer and the background synthesizer layer: the foreground drives the action for much of the piece, but the background seems to take over towards the end.

The percussion layer in *Tewe* is unusual for an Autechre piece due to the diversity of its activity. Although it's very repetitive, the constituent parts are flexible in a way that's much more like a human drummer than a machine. Instead of the "snare" part always placing emphasis on the backbeat, it sometimes suppresses an expected hit while making the sound of a stick skittering across the drum head.<sup>29</sup> The "kick drum" part is much more complex than a typical dance music "four on the floor" pattern, incorporating many twists and turns of a sort that a good funk drummer might employ.<sup>30</sup> The percussion layer also includes a very active set of buzzy electronic parts, some sounding like shakers or hi-hats and others like summer insects. All of this energy is attractive and claims my attention from the outset.

But the percussion layer is not alone. Soon after the drumming begins, a background layer of soft, murky chords enters. The chords change evenly, twice a measure, and produce a cycle of four measures, which then repeats for most of the piece. The chord pattern gives shape to the percussion layer, which remains my chief focus; the chords impart a constant, slower, half-note rhythm to the quicker, variable percussion rhythms. The effect of the chord changes reminds me of a comment Paul Lansky made about his piece, *Smalltalk*, which contains a background

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<sup>28</sup>Track 3 on *Chiastic Slide*.

<sup>29</sup>The first such instance is at 0:36. I put *snare* and *kick drum* in quotes to emphasize that we're talking about electronic stand-ins for real drums.

<sup>30</sup>For example, listen to 0:29–0:41; then, with a more natural-sounding kick drum, 1:03–1:18 and 2:00–2:22.

sustained layer in addition to foreground layers of plucked string and barely decipherable taped conversation.

Against this highly ‘quantized’ speech, I added a soft, sustained chorus; a place to let your ears rest when listening to the music of the conversation or attempting to hear the words behind it.<sup>31</sup>

In *Tewe*, your ears can rest on the layer of soft chord changes, while you listen more actively to the detail of the percussion layer.

The background layer works by accretion: three distinct parts join the initial chord changes over the course of the piece. Though the four parts are distinct, they seem to belong to the same distant layer, which clearly lies behind the percussion layer.<sup>32</sup> The second part to enter adds an intermittent sustained sound almost like faraway howling wind, fading in and out. The third is an extension of the chord change timbre into a higher register, with faint, dark, short notes playing a wandering melodic line. The last part is an angrier, more insistent, repeated phrase, whose two-measure iterations align metrically with the chord pattern.

Before the last of these background parts enters, the percussion layer settles into a loping groove (around 3:18). It’s still the primary center of attention, but its novelty slowly begins to fade. This sets the stage for me to notice the fourth background part’s distinctive, whining sound when it enters; it comes through even more clearly when most of the percussion layer soon drops out briefly (at 3:55). The lower drums reclaim my attention when they resume: they now play a tricky pattern oriented around a dotted sixteenth-note cross rhythm. But the percussion layer falls into a more literal repetition before long, so I gravitate to the final back-

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<sup>31</sup>Liner notes to *Smalltalk* CD (New Albion NA 030CD, 1990).

<sup>32</sup>The narrow, almost monophonic, stereo image of these parts helps to unite them as a single layer. Here are the approximate entrance times of the four background parts:

0:29	4-measure chord pattern
1:28	soft, howling wind sound
2:35	high, faint melodic line
3:40	insistent, 2-measure phrase (G - E - D/B $\flat$ )

ground part again. In retrospect, I think of this passage as a transition between my overwhelming focus on the foreground and the emergence of the background as the driving force for the end of the piece.

As the music continues, the fourth background part — the insistent repeated phrase — begins to crescendo. This is fairly subtle; it's just enough to make me feel that the part is tugging at the rest of the texture, pulling it forward to some unknown destination. This feeling intensifies over the course of a minute or so, as the first three background parts diminish in favor of the fourth. Eventually, the percussion layer fizzles (around 6:28), finally leaving the fourth part alone to repeat a few more times. The result is curiously empty, not as satisfying as one might expect of such a culmination.

During the second half of the piece, I have the impression that the fourth background part becomes an active agent, controlling the show — or even stealing it from the percussion layer. But when it finally has the stage all to itself, it just continues to cycle ineffectually. It seems less powerful by itself than it did when pulling the other parts along. It's like in the *Wizard of Oz*, when Dorothy and the others imagine that the wizard is an omnipotent being, only to realize later that he's just a guy behind a curtain working some machines. When I finally hear the fourth background part on its own, it just sounds like a machine that got left on by accident.<sup>33</sup> It makes for a surprising ending, but without diverging at all from the idea of a fully repetitive continuity: multiple patterns that repeat obsessively.

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My brief survey of five Autechre pieces touches on several aspects of the music. Among them are the subtle variations between iterations of a repeated pattern, and

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<sup>33</sup>None of this is meant to disparage the piece. I'm just attempting to convey some of its character.

the ways that a repeating part can sound different due to the actions or sudden absence of other parts. I'm intrigued by the manner in which layers come and go, especially when the music plays tricks on my perception of the timing of their entrances and exits. Finally, I explore the inversion of the natural relation between background and foreground layers, so that a background layer commands more of a listener's attention, while a foreground layer continues as if it were still fully in control.

## Chapter 6

### Conclusion

Since the analyses I have presented in this essay are contained within their separate chapters, a summary contrasting their approaches and findings may be useful. In the Reich analysis, I start by noticing how a literally repeated sound — the spoken phrase “come out to show them” — seems to change as it continues, even though the sound is produced by a tape loop. This happens because the repetition allows me to savor the sound and thereby discover aspects, such as sibilance or droning pitch, that escape me initially. The repetition allows me to “get inside of the sound,” as La Monte Young would say. But *Come Out* differs from Young’s *Arabic Numeral*, in that the process of the piece is not static: the intentional tape-loop sync drift itself creates changes in the sound. These changes are so gradual that they creep into my consciousness in a way that is not so different from the changes that result from my growing familiarity with the repeated phrase. The ambiguity between the actual changes and the imaginary changes makes this piece more complex than it first seems.

Even though I don’t discuss the idea of narrative listening in the Reich chapter, it’s worth noting that the tape-loop drift process is among the more clear, linear narratives we’re likely to encounter in music. It’s not a narrative in the story-telling sense, with one event responding to another, but the piece ends in a different place that it began, and the process clearly connects the two places. However, the process

is so slow, and the repetition so mesmerizing, that the narrative aspects are not as prominent in my experience as the sonic changes.

My analysis of Feldman's *Piano and String Quartet* begins with an observation about my reaction to an event arriving minutes after the start of the piece: a sudden departure from the constantly repeated gestural rhythm causes me to realize that my attitude has changed while listening. Initially, I try to make sense of the piece as a series of phrases. But this becomes ever more fruitless, and I begin to engage in *meditative* listening, in which I focus on qualities of the present moment, rather than on a developing narrative. As in the meditation practice advocated by Shunryu Suzuki, a meditative listener is not concerned with the achievement of goals, or even with the connection of one event to the next. As the music goes on, it's easy to get lost, because Feldman scrambles the order of recurring events, and because the gestures keep coming without creating in my mind a clear sense of larger groupings. Yet since I've let my interest in the direction and continuity of the piece melt away, feeling lost is actually a pleasant experience.

Surprisingly, this has something in common with the experience of listening to *Come Out*. Even though that piece does have a strong narrative, the relentless repetition and engrossing sound world cause me to focus my attention on the moment and away from larger formal concerns. As I do so, it's easy to lose track of where I am, especially during the lengthy middle section in which the seam between successive spoken phrases becomes increasingly blurry.

Like *Come Out*, Andriessen's *De Materie, Part IV* has a clear narrative, but one that is subject to twists and turns. The opening conveys a strong sense of purpose, and seems to promise a slow but determined motion toward a far-off goal. The stark, repeated bell strikes, played seconds apart, engender a feeling of anticipation, as if I were waiting for clock-tower bells to ring out the hour. The sporadic appearances of a forceful, quick-pulsed clarinet pattern support this sense, because

the long absences of the clarinets keep me curious about their return. But the entry of a meandering synthesizer part and some puzzling general pauses turn me away from the path toward a distant goal. For a while, there is a real opportunity for meditative listening to take hold. However, unlike *Piano and String Quartet*, Andriessen's piece is at heart too teleological for a non-narrative mode of listening to seem adequate. The repetition in *De Materie, Part IV* is akin to the trudging of mountain climbers, rather than the gentle breathing of meditators, which characterizes Feldman's piece. At the summit is Madame Curie and a ceremonial return of the bell strikes that opened the piece more than twenty minutes earlier. The moment derives some of its power from a conscious recognition of the return, and the realization that it has taken a long, exhausting climb to reach this point.

Pervasive repetition is a fundamental aspect of electronic dance music. Autechre adopts features typical of this music — pounding beat, multiple repeating patterns, static tonality and extended, non-hierarchical structure — and deploys them in intriguing ways. I try to show how several Autechre pieces play with my perception of the components of multi-layered textures. For example, the numbing effect of an endlessly repeating part eventually leads me to seek out other, more variable, elements of the texture, even if these are retiring in character. The sudden, inexplicable starting and stopping of parts can have interesting side-effects: in *Dael*, when the aggressive percussion layers finally stop, the moment doesn't immediately seem like the beginning of a new section, because the previous brief pauses condition me to believe that stopping and starting can happen at any time. In my discussion of Reich's *Come Out*, I describe how a literally repeating part sounds different as it continues. This can happen in Autechre's music as well, but there is an additional twist: a repeating part sounds different when in the presence of other parts that stop and start in varying combinations.

Curiously, the meditative listening stance I develop in the Feldman chapter does not seem directly relevant to my experience of Autechre's music. You might expect the extensive repetition and static harmony of their music to encourage such a listening attitude. I do sometimes listen in a non-narrative way, which I describe as being like viewing a painting and letting my eyes wander across the canvas. But this doesn't seem like the more focused meditative listening I experience with the Feldman piece. Perhaps the strong beat and clear-cut metrical orientation of Autechre's music, as well as the sudden starting and stopping of parts, aren't really conducive to meditative listening.

In my Autechre chapter, I sidestep the issue of social context for the music by relying on the duo's claim that their work, while deriving from electronic dance music, is not designed for the dance experience. It would be fascinating to investigate the ways that repetition functions in music that exists for purposes other than attentive listening in a concert hall or with a CD player. In the case of electronic dance music, this seems at first rather simple, but surely the experience of musical time is different for a listener who is simultaneously active on the dance floor.

The music of other cultures provides another avenue for exploration. African music, for example, places great importance on the interactions among performers and dancers. Ethnomusicologist John Miller Chernoff conveys how odd the idea of a non-participating listener would seem to any African.

If you play a recording of American jazz for an African friend, even though all the formal characteristics of African music are there, he may say, as he sits fidgeting in his chair, "What are we supposed to do with this?" He is expressing perhaps the most fundamental aesthetic in Africa: without participation, there is no meaning. When you ask an African friend whether or not he "understands" a certain type of music, he will say yes if he knows the dance that goes with it. The music of Africa invites us to participate in the making of a community.<sup>1</sup>

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<sup>1</sup>John Miller Chernoff, *African Rhythm and African Sensibility: Aesthetics and Social Action in African Musical Idioms* (Chicago: The University of Chicago Press, 1979), 23.

African music is cyclical, rather than repetitive, in the sense that a performer plays a particular pattern continuously, without a clear division between iterations of the pattern, and is free to improvise within the outlines of the pattern.<sup>2</sup> A Westerner used to “fixing” rhythmic patterns in notation will tend to perceive the repetition of the cycles. If this person were trying to learn a part in some African music, they might say, “just play me the first unit of that, and I’ll repeat it.” An African would listen to the total stream of sound and try to imitate it, without being overly concerned with — or even aware of — the location of boundaries between cycles. Composer Kevin Volans makes vivid this difference in perception when he cites the work of John Blacking, an ethnomusicologist who studied the music of the Venda.

When asking performers to isolate the pattern they were repeating, he found he could not make himself understood. Further investigation revealed that the performers did not perceive repetition in the music. The music is perceived as a continuous flow, rather like a river or a waterfall. How perplexed you would be if someone asked you what PART of a waterfall was repeated.<sup>3</sup>

It’s really surprising that there could be such wide variances in perception between different cultures. Repetition — first this, now this again — seems so obvious and fundamental, such a simple idea. I hope I have shown that, even within my own culture, repetition can affect a listener in many different ways.

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<sup>2</sup>I’m grateful to ethnomusicologist Michelle Kisliuk for explaining this to me.

<sup>3</sup>Kevin Volans, “Dancing in the Dark,” *New Observations* 67 (1989): 5.

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How to Listen to and Understand Great Music, 3rd Edition. 308 Pages Â· 2012 Â· 15.86 MB Â· 53 Downloads Â· English. by Robert Greenberg. Without hip-hop, Autechre would probably never have made the electronic music theyâ€™re celebrated for. In an interview with FACT, Sean Booth calls the first time he heard hip-hop â€œa massive turning pointâ€. It werenâ€™t until I heard electro and saw people breakdancing and scratching that I really got into music.â€ Now, the influence of underground hip-hop on Autechre seems to have come full circle, with their impact on a number of current producers spreading beyond independent music and into the weirder corners of the mainstream, from El-P and the Def Jux artists to Kanye West and the Yeezus producers, namely Evian Christ, Hudson Mohawke and Arca.