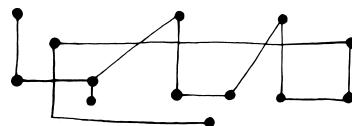


# *LA PERTE DU TEMPS:* MICHAËL LEVINAS'S *REBONDS* ON THE PLANE OF IMMANENCE



NATHAN COBB

But let a noise or a scent, once heard or once smelt, be heard or smelt again in the present and at the same time in the past, real without being actual, ideal without being abstract, and immediately the permanent and habitually concealed essence of things is liberated and our true self . . . is awakened and reanimated as it receives the celestial nourishment that is brought to it. A minute freed from the order of time has re-created in us, to feel it, the man freed from the order of time.<sup>1</sup>

—Marcel Proust, *In Search of Lost Time: Time Regained*

MICHAËL LEVINAS, TROUBADOUR<sup>2</sup>

**M**ichaël Levinas occupies a unique position in the corpus of French spectral composers. As a student of Olivier Messiaen, a founding member of Ensemble l'Itinéraire, and a regular contributor at the French Institute de Recherche et de Coordination Acoustique/Musique (IRCAM), Levinas can easily be categorized alongside such seminal figures as Gérard Grisey, Tristan Murail, and Hugues Dufourt.

Yet, despite the regular inclusion of his name in the roster of spectral composers, the distinctive techniques and idioms of spectralism are often of only peripheral concern in Levinas's work—a diverse and inventive catalog that often privileges “shock and revelation” above “formal thinking.”<sup>3</sup> While there are overarching themes running through much of his work—some of which I will touch on below—a sensitivity to the unorthodox and the spontaneous is a vital part of any hermeneutic applied to Levinas's music. In this essay, I draw upon the philosophy of Félix Guattari and Gilles Deleuze to develop an interpretation of Levinas's chamber piece, *Rebonds* (1993), that subverts a linear conception of temporality by prioritizing the work's qualities of immanence and univocity.<sup>4</sup>

Like most of his contemporaries, Levinas's compositional language has progressively evolved as new technologies have afforded the possibility for greater control and manipulation of sound. However, from his first major composition, *Arsis et Thésis* (1971), to more recent works, such as *Psaume - Frescobaldi in memoriam II* (2018), a tripartite concern for timbre, polyphony, and language has remained central to Levinas's work.<sup>5</sup> The latter is most clearly demonstrated in his vocal works from the turn of the century—specifically the operas *Go-gol* (1996) and *Les Nègres* (1999–2003), which, according to Levinas, forced him “to address the semiotic structure of musical language in relation to the French language” in order to better express the “complex and multifaceted relationship between sound and meaning.”<sup>6</sup> Building on a technique first developed for *Préfixes* (1991),<sup>7</sup> more recent vocal works, such as the opera *La Métamorphose* (2011) and its prologue, *Je, tu, il* (2011), complicate textual signification through a process of timbral manipulation in which there is “a slow metamorphosis of the voice, which will also be processed in a hybrid mix of digital technology and musical instruments.”<sup>8</sup> While much work remains to be done on Levinas's use of language and hybrid timbres, in this essay I focus primarily on Levinas's polyphonic technique and its implementation in the omnipresent glissandi gestures of *Rebonds*.<sup>9</sup>

The early 1990s were a time of significant innovation and upheaval in Levinas's compositional approach, as described in an interview from 1993: “I wanted [in *Préfixes* and subsequent pieces] . . . to grasp the capacity of improvisation in the work of synthesis, and to embrace at the same time the possibility of surpassing a formalist approach in my compositional work. Breaking the ceiling in my work: this is something very important to me.”<sup>10</sup> By loosening his grip on the formal structure of a composition, Levinas hoped to allow the internal logic of acoustic phenomena [*logique acoustique*] to be expressed spontaneously and

intuitively: “The manner in which space can enable synthesis between the synthetic sound and the so-called natural sound, the integration of the polyphony of a canon into ‘mixed’ writing, has been for me a reappropriation of a mode of writing vis-à-vis my auditory approach and my anticipatory intuitions, ultimately from acoustic logic.”<sup>11</sup> *Préfixes*, *Rebonds*, *Diaclase pour quintette de cuivres* (1993), and *Par-delà pour grand orchestre* (1994) are all cited as manifestations of this intuitive approach to composition, in which musical gestures are polyphonically juxtaposed in order to develop a new “acoustic logic.”

#### THE PLANE OF IMMANENCE

Like many spectralist composers, the influence of Messiaen’s teaching is very apparent in Levinas’s writings. In an essay about the *Turangalila Symphonie* and its relation to *Rebonds*, Levinas references a pair of concepts that will prove important in the present analysis: the related notions of extension [*étendue*] and fixity [*fixité*]. Drawing on his lessons with Messiaen at the Paris Conservatory, Levinas recounts, in his own words, his teacher’s description of “pictorial structures”:<sup>12</sup>

The work only exists through this sensation of the loss of time [*la perte du temps*]; which is to say that it is necessary, for the work to exist, that it use the phenomenon of unfolding in a time to fill. This time that hovers, stretches, moves is of the same kind as the “adagio”—its function is that of the “slow movement.” This is the way in which Beethoven has extended, in a manner where boredom can even be part of the formal dimension, the “loss of time.” The narrative then essentially resides in the fact that it unfolds in time . . . The sensation of the perception of form is not solely based on combinatorial structure or the extreme poignancy of the moment—it is situated in this notion of extension [*l'étendue*], then of the very fixity [*la fixité*] of the work.<sup>13</sup>

In this analysis, I take the dualism of fixity and extension to correspond to the modalities of the *virtual* and the *actual*. That is, I interpret the musical material of *Rebonds* as a series of closely related glissando gestures that serve to actualize a single, virtual compositional idea—the piece’s fixed and immanent source.<sup>14</sup> Marcel Proust references a similar phenomenon in the passage I quote in this essay’s epigraph: the actual experience of a sound or scent, he says, can invoke a whole host of virtual signifiers. In *In Search of Lost Time*, these signifiers often take

the form of memories of past experiences that contribute to the way in which a thing *means* to its perceiver—memories which are “real without being actual.”<sup>15</sup> In *Rebonds*, the fixity/extension bimodality results in a formal structure that is highly recursive, prompting Levinas to describe it as “closed a spiral loop . . . not conceived as a directional evolution but as a closed system.”<sup>16</sup>

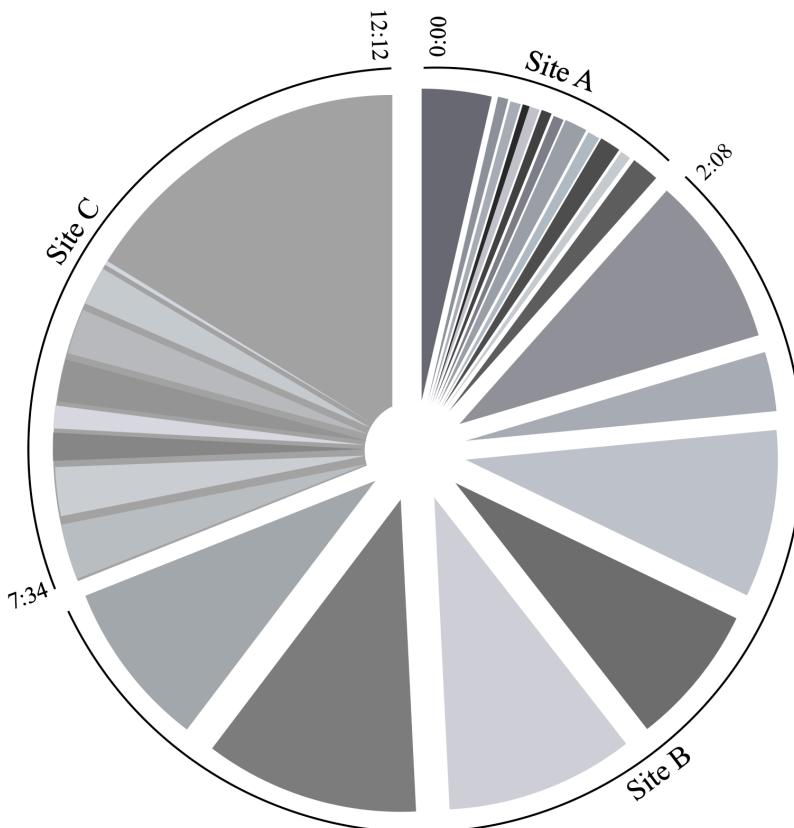
Deleuze and Guattari, in *A Thousand Plateaus*, describe the preconditions for such a “directionless” artwork. Rather than being motivated by structural or developmental processes (which they refer to as a “transcendent plan(e) of organization”), this composition is formed through variations of speed on an *immanent plane*:

There are only relations of movement and rest, speed and slowness between unformed elements. . . . There are only haecceities, affects, subjectless individuations that constitute collective assemblages. Nothing develops, but things arrive late or early, and form this or that assemblage depending on their compositions of speed. Nothing subjectifies, but haecceities form according to compositions of nonsubjectified powers or affects.<sup>17</sup>

Thus, on a plane of immanence, the *virtual* compositional idea is *actualized* through relations of speed and duration, and it is through these relations and differences that discrete musical events gradually take shape. Example 1 presents the three “Sites” that constitute the entirety of *Rebonds*, with segment widths corresponding to the relative duration of each glissando event that occurs within that site.<sup>18</sup> While this figure conveys nothing about the speed at which each glissando traverses its unique pitch range (something which I will address on a site-by-site basis), it does provide a useful visual representation of their great number and variety.

It is crucial to note that these discrete events are not the product of a formalist structure that relies on the hierarchical precedence of a transcendent musical object—such as the “spectral reservoirs”<sup>19</sup> of Levinas’s contemporaries—which would ascribe to each event a dependent and therefore subsidiary role. Instead, events develop gradually as the unique and spontaneous expressions of a compositional idea with no idealized form or governing structure.<sup>20</sup> Thus, while general characteristics of each site can be inferred from this graph, such as the significant durational expansion of Site B in relation to Site A and C, one would be hard-pressed to find an ordering principle for the series of glissandi that occur *within* a site. Far from being an equivocation, this understanding of the relationship between form and

content in *Rebonds* is an integral part of Levinas's transformed compositional approach in the early 1990s, when spontaneity and intuition began to take precedence over formalist structures.<sup>21</sup> It means that any attempt to uncover an architectonic principle of composition will likely be futile and, on the contrary, the listener and analyst should expect to find "an *involution*, in which form is constantly being dissolved, freeing times and speeds."<sup>22</sup>



EXAMPLE 1: CHART OF RELATIVE GLISSANDI DURATIONS  
IN THE THREE SITES OF *REBONDS*

## Two COMPOSITIONAL PREMISES

Levinas identifies, in a program note, the two primary compositional premises of *Rebonds*: polyphony and ornamentation.<sup>23</sup> As mentioned earlier, polyphony has been a central preoccupation for much of Levinas's compositional career. His polyphonic writing is often characterized by a canonic juxtaposition of multiple, closely related parts at different speeds, which together produce complex rhythmic patterns and timbres. Although he began to develop this system of writing in pieces like *Appels* (1974) and *Ouverture pour une fête étrange* (1979), it did not reach maturation until the early 1990s, in pieces like *Préfixes*, *Rebonds*, *Dioclase* (1993), and *Par-delà* (1994).<sup>24</sup> With reference to *Préfixes*, Levinas describes his process of polyphonic writing to be based on the principles of space and variation:

These categories of the use of space [instrumental attack and echo] gradually led me to a radical and polyphonic writing which became the very essence of this piece: a continuous stretto that can integrate more than thirty real parts. This stretto is structured on hybrid "phases" each obeying accelerations and decelerations. They obey ten increases and five proportional decreases. The superposition of these "variations" and their progressive and calculated shift create complex rhythmic "textures" and energize the perception of the hybridization of sounds.<sup>25</sup>

The use of stretto in *Rebonds* is different from that of *Préfixes* insofar as its processes of acceleration and deceleration follow less "proportional" alterations, but this does not preclude the possibility of identifying, more generally, the way in which *speed* is a primary contributor to the *haecceity* of each polyphonic glissando event and to the quality of "extension" more generally.<sup>26</sup> Example 2 reproduces the third glissando of Site A (mm. 13–15), in which Piano I and Piano II perform the same descending line in canon (with a rhythmic offset of a 32nd note) while the flute and piccolo clarinet echo the pianos, loosely transposing their parts a fifth higher. This type of canonic reiteration is one means by which Levinas counteracts the directionality (usually downward) of the glissando events to emphasize the quality of "fixity" in *Rebonds*. Particularly in the later glissandi of Site A, which may have five or six canonic entries occur within a quarter-note span, the sensation of perpetual free-fall is reminiscent of the acoustic phenomenon known as a "Shepard tone," or the directional stasis that is evoked by a barber's pole or a Möbius strip.<sup>27</sup> To arrive at a quantitative value for the speed of these dense, polyphonic events, however, we must first understand Levinas's second compositional principle: ornamentation.

EXAMPLE 2: POLYPHONY IN MM. 13–15 OF *REBONDS*

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EXAMPLE 3: *REBONDS*, MM. 10–12 (PICCOLO PART ONLY)

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While the relationship between instrumental parts is polyphonic, the gestural content of these parts—and of the piece as a whole—is that of glissandi created by micro-intervallic ornamentation. Rather than being straight-forward chromatic ascents or descents (though these do happen on occasion), the glissandi of *Rebonds* usually make their way

circuitously, seemingly improvising their way through pitch space. Example 3 reproduces the first instance of this in the piece, as it appears in the piccolo part (mm. 10–12). From the first note, E6, to the last, G#5, is a minor sixth, or sixteen quarter-steps (although no microtonal intervals are used in this excerpt, they are common enough in *Rebonds* that they should be considered the standard unit of measure for each glissando). This interval of pitch space is traversed by a wandering but generally descending chromatic line, composed exclusively of small intervals spanning from one to four half-steps. Although there is a good deal of variation in the ornamental textures of *Rebonds*, this provides a representative example of how, on a very fine-grained level, a single instrument may perform an ornamented glissando.

The process of ornamentation is not always quite this simple, however. In the performance instructions of the score, Levinas calls for two pianists to play three pianos: the first piano is tuned normally, the second is tuned 1/4 tone lower, and the third is tuned “in 1/16th tones over 88 notes” that “cover the range of an octave.”<sup>28</sup> This micro-intervallic tuning (especially of the third piano) is used to produce many complex manifestations of the glissando gesture, some of which will be discussed later. But in addition to performing its own glissandi, Levinas explains, “The piano in sixteenth tones ornaments the unisons of the flute, violin, cello, and clarinet. These trills are realized from ‘rocket’ features, progressively evolving from one pitch to another by adding and removing notes. It is a process of micro-intervallic evolution.”<sup>29</sup> Thus, not only are the glissandi of each individual part ornamented by virtue of their pitch non-linearity (as in Examples 2 and 3), but they may be ornamented on a further level by the microtonal piano.

I have so far discussed Levinas’s conceptions of polyphony and ornamentation in isolation, but in my understanding these compositional principles are, at a fundamental level, just two different modalities of time. Recall my assertion that *speed* is the primary means by which the haecceity of a glissando event coalesces on the immanent compositional plane of *Rebonds*. Building on this, we may conceive of a *continuum of speeds* that facilitates a phase change between static ornamentation on the one hand and directional polyphonic gestures on the other, determining the level of rhythmic detail that will be perceptible in a given moment.<sup>30</sup> The glissando in Example 3 travels at a moderate speed, descending through sixteen quarter-steps in approximately five seconds, from which we can calculate a speed of 3.2 quarter-steps/second. At this relatively slow pace, the ornamental intervals are easily perceived and the rhythmic character of the line is

likely more salient than the gesture of a descending glissando.<sup>31</sup> This somewhat obscures the glissando effect, which is apparent only as an assemblage of the numerous intervallic spans it comprises—rather like the composite images formed by small strokes of color in the Divisionist paintings of Jean Metzinger<sup>32</sup> or Robert Delaunay.<sup>33</sup> The inverse is true for glissandi of faster speeds, in which the movement through pitch space becomes more perceptually significant than the rhythm of the ornamentation. Levinas uses glissandi from every phase of this continuum—often successively or simultaneously juxtaposed with contrasting speeds—to create distinct strata of movement that define the unique temporal expression of a given moment.

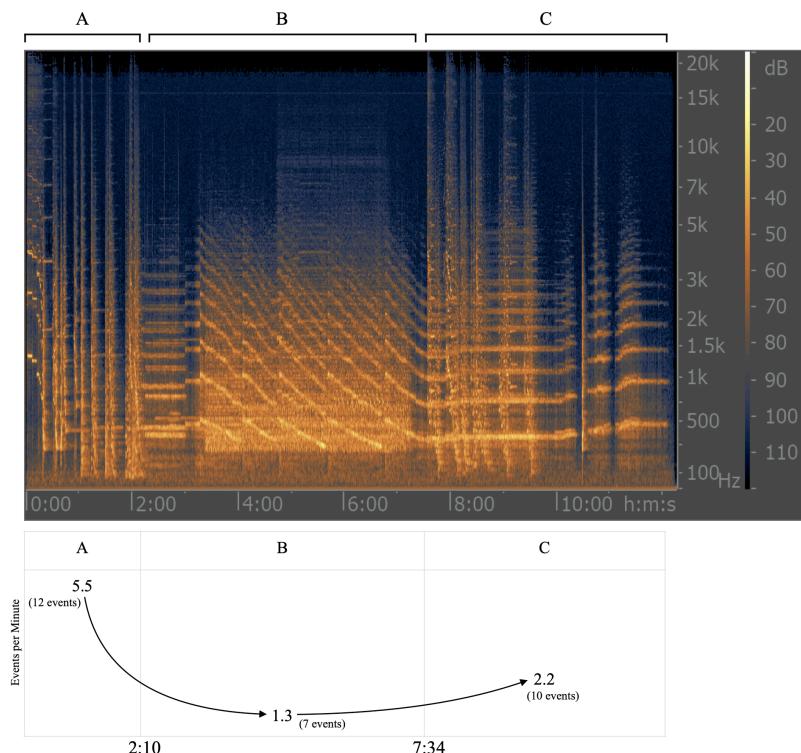
Levinas seems to have decided upon the centrality of time as an organizing concept in *Rebonds* only after having completed the composition. He provides, in a lecture given at NYU's "The Sense of Sound" conference, the source for his re-conception of the relationship between polyphony and ornamentation:

All that is orchestration is based on the principle of "time," which ultimately prefigures all acoustic research. Therefore, Ligeti told me in a letter [regarding *Rebonds*]: "you did not make a glissando, you made a polyphony that believes it is a glissando." This is the foundation of the relationship between polyphony and timbre and even individual melody.<sup>34</sup>

This correspondence with György Ligeti proved to be vital to Levinas's understanding of *Rebonds*, insofar as it made him realize "that what he was doing was an acoustic decoy; while thinking that [he was] presenting glissandi he was actually doing a polyphonic effect."<sup>35</sup> But Ligeti's influence also had a more foundational impact: by reinterpreting the various musical parameters of *Rebonds* as univocal expressions of time, he transformed how Levinas conceived not only of this piece, but also the relationship between the abstract domains of orchestration, polyphony, timbre, and melody. It is also by this logic that we can conceive of *Rebonds* through the framework of Messiaen's "la perte du temps" and Deleuze and Guattari's immanent plane: as different modalities of time, ornamentation and polyphony give diverse expression to the piece's basic idea, the glissando gesture, or *rebondissement*. Put another way, it is by means of these two musical characteristics that the virtual becomes actual in *Rebonds*, fabricating time in a continuous kaleidoscope of distinct and differentiated speeds.

## ANALYSIS

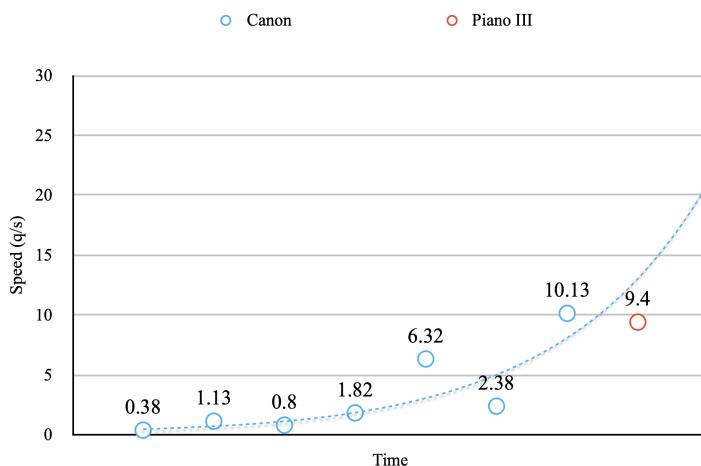
As mentioned previously, *Rebonds* can be segmented into three sites of activity, based on the use of distinct timbres and speeds. Example 4 presents a spectrogram of the entire piece, created from a recording of its first performance in 1993, conducted by Fahrad Mechkat with soloists from the Orchestre Philharmonique de Radio France. Beneath the spectrogram is a chart representing the density of events in each site, as well as a trend line to show how the concentration of activity drops significantly from Site A to Site B and then follows a gradual increase to Site C. A consideration of the quantitative parameters of these events (their speed, ornamentation, timbre, and directionality) and the way in which their interrelations form distinct gestural assemblages provides a way of hearing *Rebonds* that captures some of the spontaneity and intuition that Levinas adopted in its composition.



EXAMPLE 4: SPECTROGRAM OF *REBONDS* WITH SITES AND EVENT CURVE

## SITE A

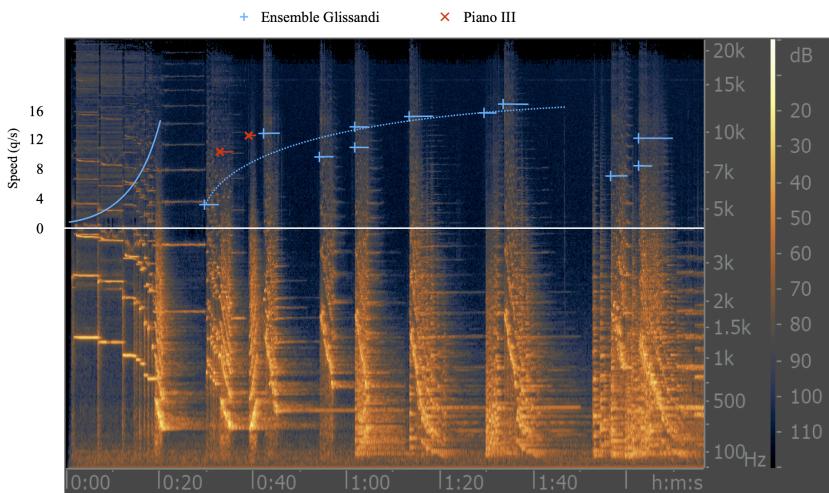
Attracted to the circular and repetitive intervalic patterning of Messiaen's modes of limited transposition, Levinas describes the pitch content of *Rebonds* as "a rigorously polyphonic writing of micro-intervallic superpositions of [Messiaen's] mode 2 in various transpositions."<sup>36</sup> Otherwise known as the octatonic collection, Messiaen's second mode does indeed feature prominently at certain moments of the work, but it is Messiaen's third mode (which uses the interval pattern [2,1,1]) that is used in the introduction of *Rebonds* (mm. 1–8). Two transpositions of the mode are used simultaneously to differentiate between the two parts of a canon in which the *comes* is a perfect fifth above the *dux*. The most salient feature of this introduction, however, is its process of gradual acceleration. With very few exceptions, the glissandi of *Rebonds* remain at stable speeds and rhythmic values for their entire duration. In the introduction, however, the note durations begin as whole-notes and are gradually truncated to become quarter-notes, establishing a process of rhythmic acceleration. The tempi of this passage work in tandem with this process, increasing from  $\text{♩} = 47$  to  $\text{♩} = 80$ . The actual, performed speed of the glissando can also be measured, as demonstrated with Example 3, but it will be represented by a curve, due to its gradual acceleration (Example 5): it



EXAMPLE 5: CHART OF SPEEDS IN THE INTRODUCTION OF REBONDS (MM. 1–8)

begins at the extreme low-end of the speed continuum, with the first two pitches played 5.3 seconds apart and an across an interval of two quarter-steps, resulting in an average speed of 0.38 quarter-steps per second (q/s). The speed accelerates throughout the introduction, eventually culminating with a slide on the third piano through its entire octave range, performed in 1.7 seconds, or a speed of 9.4 q/s.<sup>37</sup>

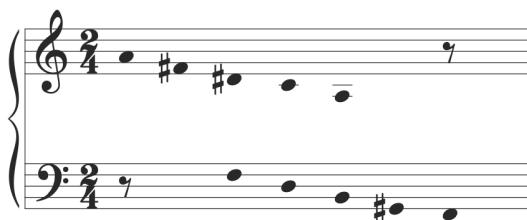
In contrast to the exponential acceleration of the introductory glissando, the glissandi in the primary part of Site A maintain steady speeds throughout, indicated on the spectrogram of Site A with blue crosses and horizontal lines to represent their duration (Example 6). There is a gradual acceleration of speeds at the beginning of this passage, represented by the logarithmic dotted line, followed by a sudden decrease in speed for the final three glissandi. Working against any predictable acceleration, however, is the irregular duration of silence between each glissando event: ranging from little or no silence at all (particularly in the second half of the passage) to 10.5 seconds between the eleventh and twelfth glissandi (when the dotted curve of this figure disappears), the duration of silence is unpredictable enough to obfuscate any strong sense of teleology.<sup>38</sup> The tension between inertia and acceleration—and likewise between predictability and unpredictability—is a manifestation of the fixity/extension dualism



EXAMPLE 6: SPECTROGRAM OF SITE A (MM. 1-47),  
WITH SPEEDS OF GLISSANDI

that generates the form of a “closed spiral loop”: although the glissandi do gather speed, their trajectory is resisted by the irregular juxtaposition of stasis (which is itself a speed of zero) and the polyphonic relationship between the parts.<sup>39</sup>

Although the octatonic collection is used rather loosely in Site A, Levinas foregrounds its cyclical (and therefore “fixed”) quality through the mechanics of the piano. In m. 22, Pianos I and II are instructed to silently depress the keys of two fully diminished seventh chords and to sustain them with the sostenuto pedal for the remainder of the piece (Example 7). The pitches of these two sustained chords together form the octatonic collection OCT(2,3) and in nearly every subsequent occurrence in Site A they are given dynamic emphasis. *Rebonds* is not the first piece in which Levinas uses this technique: writing about *Trois Études*, published just one year earlier, Levinas explains that “The specificity of a piano’s ‘sostenuto’ pedal makes it possible to compose a polyphony based on different and simultaneous speeds . . . Indeed, certain notes are kept in this ‘sostenuto’ pedal, which allows different modes of attack and resonance, with extremely varied durations, to be heard simultaneously.”<sup>40</sup> Therefore, not only does the sostenuto pedal literally “fix” mode 2 in all subsequent passages, where its pitches will be sustained for a longer duration than any surrounding pitch material, but it produces a complex polyphony in which multiple speeds emerge from a single part. Example 8 reproduces one such passage (mm. 26–28), where *forte* markings are painstakingly used to accent the modal sostenuto notes in an otherwise chromatic and *piano* context. Immediately following this excerpt, the pianists are instructed to perform a similar passage (albeit ascending) with their left hand while



\* Ped. sost.

EXAMPLE 7: EXCERPT OF M. 22 SHOWING THE SOSTENUTO INSTRUCTION FOR PIANO I AND II

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EXAMPLE 8: *REBONDS*, MM. 26–28 (PIANO I AND II PARTS ONLY)

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directly striking the piano strings between E2 and A2 with their right hand (mm. 29–31). The only pitches that are notated in the right hand's staff are those which will be sustained by the sostenuto pedal, F2 and G $\sharp$ 2. In this respect, the fixed octatonic collection of Pianos I and II is chromatically ornamented in order to effect an extension on the temporal and pitch-space planes.

## SITE B

The clearest suggestion of a spectral idiom in *Rebonds* is found in the first measures of Site B. Supported by a D2 fundamental in the cello, the piccolo clarinet, violin, and flute gradually introduce pitch layers at A4, and C5, the fundamental's sixth and seventh partials. The seventh partial becomes the point of departure for the remainder of the site when, in m. 61, the third piano plays “approximately” [*résultante approximative*] the same pitch to initiate the first of Site B's five descending glissandi. The first two of these glissandi span C5-E $\sharp$ 4, the third and fourth are expanded to C5-C $\sharp$ 4, and the fifth returns approximately to the initial span with C5-E4. Because Piano III is tuned in sixteenth-steps and none of the keys on the keyboard correspond to their normal pitches, these ranges are only approximate designations; what the piano plays in actuality is a highly ornamented and greatly expanded version of the rapid glissandi performed in Site A. In the first site, the third piano is used only for “special effect”—by providing ornamentation, interruption, or continuation of glissandi initiated in

other instrumental parts. In contrast to the fleeting glissandi of Site A, in Site B the third piano's octave range is unfolded gradually and is accompanied by ornamental flourishes that dilute any precise sense of pitch. Example 9 reproduces the beginning of the first glissando, mm. 61–62, where the “micro-intervallic evolution” of the 64th-note ornamentation can be seen to progressively evolve, as Levinas describes in the score instructions, “from one pitch to another by adding and removing notes.”<sup>41</sup>

Also shown in Example 9 are the trilled accompaniments of Pianos I and II which move in contrary motion from octave Cs (though Piano II will sound a quarter-step flat) in a swirling, microcosmic expression of *Rebonds*'s global spiral form. These swirls ornament all five of the primary glissandi of Site B, mirroring the expansion and contraction of each glissandi's span with a parallel intervallic and registral process (at their largest point, accompanying the third glissando, the upper swirl spans E5–B $\flat$ 4 and the lower swirl spans C4–G4). Example 10 functions as a map of Site B by extracting from the spectrogram the three distinct textures that contribute to the unique timbre of each glissando event.<sup>42</sup> Each row of the map corresponds to an equal range in pitch space, with most of the instrumental parts in this site constrained to the range of the C4–C5 octave that the Piano III glissandi are traversing.<sup>43</sup>

A last important feature of this site to consider is the textural effect that is created by overlapping low-order partials across glissandi events. That is, the glissandi of Site B form an interlocking network of spectra in which prominent upper partials from the end of one glissando event prepare the first or second partials of the following event. This is visually striking in the spectrogram of Example 10, where the overlap is readily apparent: the third partial of the first glissando, B $\sharp$ 5, is redirected into the second partial of the second glissando, C6; the second to third glissandi follow a similar pattern. For the remaining glissandi the overlap is even more direct as the second partial, C $\sharp$ 5, leads directly into the fundamental of the following glissando, C5 (the inclusion of at least two beats of rest between the third, fourth, and fifth glissandi is perhaps intended to allow for the interval of three quarter-steps to be smoothed over). The resulting network is an elegant demonstration of how the abstract concept of fixity and return can be worked out on the immanent musical plane. Just one year later, Grisey would begin composition on a very different kind of piece, *Vortex Temporum* (1994–96) which, nevertheless, would operate from a similar paradigm: “the interlocking of the fundamentals in chromatic descents and the continuous filtering of the piano generate a sort of double rotation, a continuous helical movement which winds around itself.”<sup>44</sup>

$\downarrow = 50$  **Tournoiements**

Pno. 1 {

Pno. 2 {

Pno. 3 {

15<sup>ma</sup>

*fff*

(resultante approximative)

*p...*

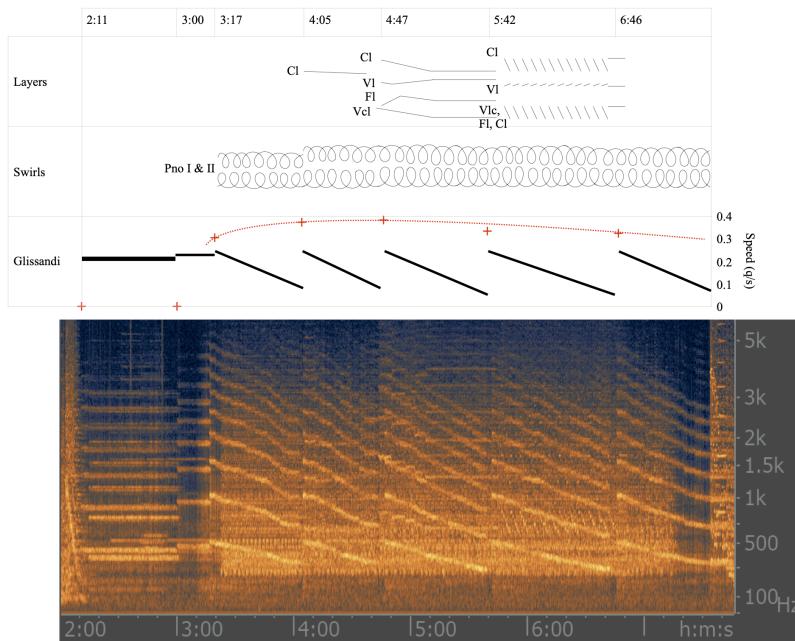
Pno. 1 {

Pno. 2 {

Pno. 3 {

EXAMPLE 9: REBONDS, MM. 61-62,  
FIRST GLISSANDO OF SITE B (PIANO PARTS ONLY)

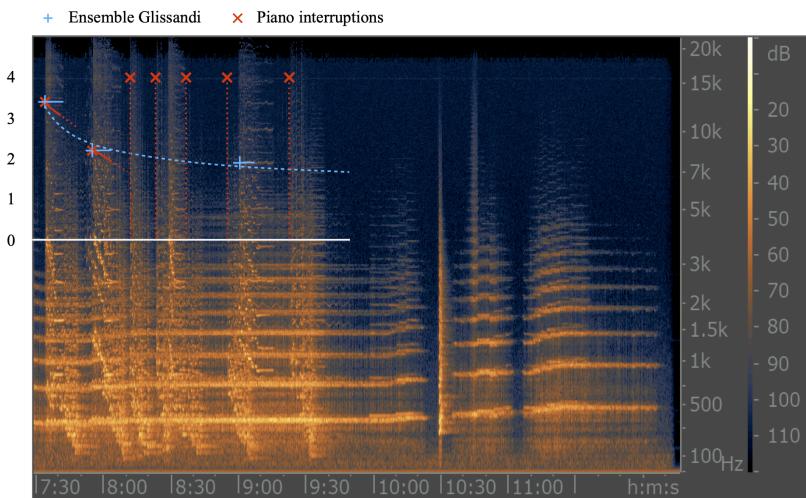
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EXAMPLE 10: SPECTROGRAM AND MAP OF EVENTS IN SITE B (MM. 48–103)

## SITE C

The process of overlap, now begun, persists to *Rebonds*'s final measures. The last glissando of Site B ends on E4, a pitch which is redirected up a half-step, at the beginning of Site C, and moved to the cello. This initiates a final large-scale glissando which, beginning with F4, will take the remaining four and a half minutes of the piece to return to its starting place, the C5 established in Site B.<sup>45</sup> As the final site of *Rebonds*, Site C functions as an expansion of the two previous sections by bringing their unique assemblages of speed and timbre into juxtaposition and transforming these returns with ornamentation. Example 11 shows how the speeds of the ensemble glissandi (consisting in this site of the piccolo, piccolo clarinet, and violin) gradually decelerate from 3.4 q/s to 1.9 q/s before dropping out completely. In texture and interval content, these glissandi are almost identical to the glissandi of Site A (see Example 2). Pianos I and II, on



EXAMPLE 11: SPECTROGRAM OF SITE C (MM. 104–55),  
WITH SPEEDS OF GLISSANDI AND PIANO INTERRUPTIONS

the other hand, initially participate in the ensemble glissandi, but quickly diverge and begin a process of rhythmic dissolution. This disintegration of a stable, measurable speed is represented by the slanted, red lines marking the first two piano glissandi of Example 11. The last five events in the piano parts are so erratic in rhythm and duration that it is difficult to represent their speed as either a decimal number or a curve (see Example 8, from Site A, as these interruptions represent the highly-ornamented return of that textural source). Instead, I include them in Example 11 as vertical attack points, thus drawing attention to the fact that they, like the speeds of the ensemble glissandi, are following a process of temporal dilation. The temporal span between the onset of each event grows exponentially: beginning with twelve seconds between the start of the first two events, the duration then increases by 2.5 seconds (for a total of 14.5 seconds) between the second and third events, five seconds between the third and fourth, and ten seconds between the fourth and fifth.

The juxtaposition of material from Site A and Site B, both in highly ornamented form, reaches its point of culmination after the final Piano III glissando (10:30 on the spectrogram), when the score indication

“Monodie Ornamenté” (m. 139) reinstates the canonic texture of the introductory passage. Led by the cello (which by this point has ascended from F4 to G4) and ornamented by trills in the third piano, the remaining instruments follow at staggered durations as the glissando ascends, at a glacial speed of 0.08 q/s, to C5.

### THE REFRAIN

What consequence does the formal and conceptual framework I have described have for a hearing of *Rebonds*? And what do the analytical findings contribute to this framework? By identifying relations of speed, describing their modes of extension, and locating their points of return, new possibilities of listening begin to open up that resist our conventional linear understanding of time. What Levinas refers to as the “temporal principles of the scales”<sup>46</sup> and “gyratory form . . . which *returns*, in time, to the modal scale of the beginning of the piece,”<sup>47</sup> is evocative of a final Deleuzian concept that I will now introduce: the refrain.

So just what is a refrain? *Glass harmonica*: the refrain is a prism, a crystal of space-time. It acts upon that which surrounds it, sound or light, extracting from it various vibrations, or decompositions, projections, or transformations. The refrain also has a catalytic function: not only to increase the speed of the exchanges and reactions in that which surrounds it, but also to assure indirect interactions between elements devoid of so-called natural affinity, and thereby to form organized masses. . . . *The refrain fabricates time* (du temps). . . . Time is not an a priori form; *rather, the refrain is the a priori form of time, which in each case fabricates different times.*<sup>48</sup>

Thus, the refrain of *Rebonds*—the twenty-nine glissandi that actualize as distinct speeds, timbres, and ornamentations—are, to the listener, the productive source of time(s) while the piece goes on. Rather than hearing *Rebonds* as an expression of an underlying formal principle, which would make the musical surface just that—an ornamental façade overlaying a deeper musical structure—I maintain that the substance or haecceity of *Rebonds* as a whole is both immanent and perceptually available. Likewise, the musical refrain does not develop *through* time, but rather manifests in various guises and, in so doing, “*fabricates different times*.” *Rebonds* is therefore a composition of twenty-nine times, all distinct and all immanent, in turn, to the listener. And yet

*Rebonds* is also fixed, closed, part of an eternal return. This tension, between temporal extension and fixity, can only be expressed immanently, as a *lived* tension—Proust understood this and recreated it many times over in *In Search of Lost Time*.<sup>49</sup> Levinas drew on the same tension when composing *Rebonds* and it is thus only through a thorough understanding how musical moments negotiate this complex relationship—how twelve minutes of glissandi can be both a “perte du temps” and the furthest thing from a “waste of time”—that the multiple speeds and times of *Rebonds* can be fully experienced.<sup>50</sup>

## NOTES

I would like to extend thanks to the reviewers of this article and to Benjamin Levy for their many helpful comments and questions about this article.

1. Marcel Proust, *In Search of Lost Time, Vol. VI: Time Regained* (New York: Modern Library Classics, 1999), 264–5.
2. This epithet originates in an article by Levinas written in 1999 on the state of contemporary music at the end of the twentieth century—a situation in which the modern composer's negotiation of the demands placed upon them by the State and society is leveraged against their use of technology: “Le Frisson de Mallarmé: ou le compositeur trouvère” in *Le compositeur trouvère: Écrits et entretiens (1982–2002)*, eds. Pierre Albert Castanet and Danielle Cohen-Levinas (Paris: L'Harmattan, 2002), 149–55. All translations from this volume are my own.
3. Michaël Levinas, “Qu'est-ce que l'idée musicale,” in *Le compositeur trouvère*, 79. Perhaps as a result of his idiosyncratic and rapidly evolving compositional style, Levinas is conspicuously underrepresented in scholarly literature. At the time of this writing, very few writings deal directly with Levinas and his music. The notable exceptions are Campbell (2013a; 2013b; 2017; and 2022); Cross (2018); a collection of Levinas's own writings, *Le compositeur trouvère: Écrits et entretiens (1982–2002)* (2002); and two collections of essays written in his honor, *Résonances polyphoniques: hommage à Michaël Levinas* (2014) and *La musique de Michaël Levinas: vers des contrepoints irréels* (2020).
4. I use “univocity” in this essay in the Deleuzian sense, where it refers to the quality of emanation from a single, differentiating source: “With univocity, however, it is not the differences which are and must be: it is being which is Difference, in the sense that it is said of difference. Moreover, it is not we who are univocal in a Being which is not; it is we and our individuality which remains equivocal in and for a univocal Being.” Gilles Deleuze, *Difference and Repetition*, trans. Paul Patton (New York: Columbia University Press, 1994 [1968]), 39.

5. Yves Balmer, “Michaël Levinas: Parcours de l’œuvre,” IRCAM, accessed March 13, 2020, <http://brahms.ircam.fr/composers/composer/2046/#parcours>.
6. Michaël Levinas, “Michaël Levinas: *La Métamorphose* (Opera),” Ictus: Contemporary Music, Brussels, Accessed March 14, 2020, <https://www.ictus.be/metamorphose>.
7. Michaël Levinas, “Transients of Attack and Hybrid Sounds: Toward a New Mixity,” *Leonardo Music Journal* 4 (1994), 13–15.
8. Ibid.
9. For more on Levinas’s use of hybrid timbres, see: Jonathan Cross, “Musical Spectra, *l’espace sensible* and Contemporary Opera,” *Twentieth-Century Music* 15/1 (2018): 103–24; and Edward Campbell, “Timbre, Technology and Hybridation in the Music of Michaël Levinas,” in *The Oxford Handbook of Spectral Music*, eds. Amy Bauer et al. (New York: Oxford University Press, 2022).
10. Michaël Levinas, “Prolégomènes: par Danielle Cohen-Levinas et Pierre Albert Castanet,” in *Le compositeur trouvère*, 222.
11. Ibid., 221.
12. A thorough understanding of what Messiaen meant by “pictorial structures” is not necessary for the present purposes. Nevertheless, it is sufficiently clear from Levinas’s description that any combinatorial elements, though they may be present in such a formal structure, are subsidiary to the artwork’s ability to be perceived as a univocal expression of a single, fixed compositional idea.
13. Michaël Levinas, “De la polyphonie de la *Turangalîla Symphonie* (1948) d’Olivier Messiaen à *Rebonds* (1993) de Michaël Levinas,” in *Le compositeur trouvère*, 115, 116.
14. Dimitris Exarchos has applied these Deleuzian terms to the work of another spectralist composer, *Le Noir de l’Étoile* by Gérard Grisey: “The Skin of Spectral Time in Grisey’s *Le Noir de l’Étoile*,” *Twentieth-Century Music* 15/1 (2018), 31–55.
15. While I have been unable to find any evidence that Levinas had been influenced by Proust’s *À la recherche du temps perdu* when he described the narrative progression of the *Turangalîla Symphony* and *Rebonds* as “la perte du temps,” the allusions to Proust’s title are certainly highly suggestive.

16. Michaël Levinas, “Catalogue Commenté des Œuvres: *Rebonds*,” in *Le compositeur trouvère*, 409.
17. Gilles Deleuze and Felix Guattari, *A Thousand Plateaus*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987), 266.
18. Durations were found by highlighting each glissando event of the spectrogram for *Rebonds*, using the selection tool of the iZotope RX 6 Audio Editor program. It should be noted that the space between each “slice” of this figure is arbitrary and not intended to represent the duration of silence between each glissando event—something which is much more clearly depicted by the spectrograms of the piece (Examples 4, 6, 10, and 11). I have used the 1993 performance by the Orchestre Philharmonique de Radio France (the only extant recording, to my knowledge, at the time of this writing) for this and all other calculations: Michaël Levinas, *Rebonds*, soloists from the Orchestre Philharmonique de Radio France, conducted by Fahrad Mechkat, recorded June 11, 1993, Æon AECD 0103, 2001, CD.
19. This term was introduced by Joshua Fineberg in his “Guide to the basic concepts and techniques of spectral music,” *Contemporary Music Review* 19/2 (2000): 99. See Féron (2011) for examples of this compositional approach.
20. Deleuze describes the ontological status of such “immanent” artworks in a similar vein: “the problem of the work of art is the problem of a unity and a totality that would be neither logical nor organic, that is, neither presupposed by the parts as a lost unity or a fragmented totality nor formed or prefigured by them in the course of a logical development or of an organic evolution.” Gilles Deleuze, *Proust and Signs: The Complete Text*, trans. Richard Howard (Minneapolis: University of Minnesota Press, 2000), 164.
21. Another composer regularly associated with spectralism, Kaija Saariaho, was also experimenting with non-linear forms at this time. See Hargreaves (2011) and Besada and Cánovas (2020) for descriptions of such structures in *Du cristal* (1989–90) and *Nymphéa* (1987), respectively.
22. Deleuze and Guattari, *A Thousand Plateaus*, 297.
23. “*Rebonds* uses two principles of writing. The first elucidates the meaning of the title: it is a polyphony by twists in unison with lines written in canon, following the principles that I had already developed in *Préfixes* and in my *Trois études pour piano*. The

second principle is that of ornamentation.” Michaël Levinas, “Catalogue Commenté des Œuvres: *Rebonds*,” 408–09.

24. Michaël Levinas, “La loi et le hors-la-loi: l’ère du soupçon,” in *Le compositeur trouvère*, 146.
25. Michaël Levinas, “Catalogue Commenté des Œuvres: *Préfixes*,” in *Le compositeur trouvère*, 406.
26. Here I borrow Deleuze’s term “haecceity” to refer to the properties of a glissando event that make it identifiably unique and distinct from all other glissando events in the piece. This term was first used by the Franciscan friar John Duns Scotus, whose ideas were quite important for Deleuze’s own thinking (Widder 2009).
27. Clearly aware of this perceptual effect, Levinas has described the instrumental writing of *Rebonds* as “Polyphony in infinite spiral”—a quality which he intended to evoke with the work’s title, which is an abbreviation of *rebondissements*, or “twists and turns.” Michaël Levinas, “Le temps et l’altération,” in *Le compositeur trouvère*, 171.
28. Michaël Levinas, *Rebonds* (Paris: Editions Henry Lemoine, 1999), 1.
29. Levinas, “Catalogue Commenté des Œuvres: *Rebonds*,” 409.
30. A fascination with the “liminal spaces” between musical parameters is common to many of the spectralist composers. Grisey, for example, has written of his desire to explore “all forms of fusion and the thresholds between different parameters” (Gérard Grisey, “Did you say spectral?,” trans. Joshua Fineberg, *Contemporary Music Review* 19/3 [2000], 3). Murail also argues for a “hybridity” of compositional materials, saying that “there is no precise line between pitch and noise, rhythm and frequency; harmony and sound colour are continuous phenomena” (Tristan Murail, “The Revolution of Complex Sounds,” trans. Joshua Cody, *Contemporary Music Review* 24/2–3 [2005], 124).
31. This is the formula that will be used for determining speeds in the coming analysis. Note that this is an approximation: it is based on a specific performance and ignores the slight acceleration that occurs with the 9:8 tuplet of m. 11 (a relative rarity—more often the rhythmic pacing of each glissando remains stable throughout its duration).
32. Jean Metzinger, *Bacchante*, c. 1910, Kröller-Müller Museum, Otterlo, accessed August 31, 2022, <https://www.wikiart.org/en/jean-metzinger/bacchante-1906>.

33. Robert Delaunay, *Paysage au disque*, 1906, Musée national d'art moderne (MNAM), Centre Georges Pompidou, Paris, accessed August 31, 2022, <https://www.centrepompidou.fr/cpv/resource/cGbREG/rk4eEpd>.
34. Michaël Levinas, "Sound and its Revelations: Sound become Writing and Writing become Sound," *The Sense of Sound*, New York University (Paris), October 7, 2017, video, 39:12, <https://www.youtube.com/watch?v=bi8FMHhAONI>. Levinas preferred to give this lecture in French and, although he had an English translator, some details do not make it into the translation. The cited quotation is directly from Levinas, and the translation is my own.
35. Ibid., 40:01. The influence of Ligeti upon many of the spectralist composers is well-known and, in the case of *Rebonds*, it is difficult to ignore the textural and timbral similarities between Levinas's "micro-intervallic evolution" and Ligeti's "micropolyphony." For more on Ligeti and spectralism, see: Julian Anderson, "A provisional history of spectral music," *Contemporary Music Review* 19/2 (2000), 12; François Rose, "Introduction to the Pitch Organization of French Spectral Music," *Perspectives of New Music* 34/2 (Summer, 1996), 6; and Benjamin Levy, "Ligeti's Distant Resonances with Spectralism," in *The Oxford Handbook of Spectral Music*, eds. Amy Bauer et al. (New York: Oxford University Press, 2022).
36. Levinas, "La loi et le hors-la-loi," 146.
37. While it might seem unusual to "smooth over" the disjunct intervallic leaps through pitch space by calculating an average speed in terms of quarter-steps per second, this method allows for the comparison of glissandi from every extreme of the speed continuum and in abstraction from their ornamental texture. This is visually corroborated in the spectrogram of Site A (Example 6, 0:19), where the glissando of the third piano is shown to be a continuation of the acceleration process initiated by the rest of the ensemble, despite traveling through pitch space in a much different manner.
38. While not the case with *Rebonds*, an unpredictable surface does not necessarily preclude a strongly directional background structure. One interesting example of this, as Michael Rofe (2011) has shown, is Saariaho's *Nymphéa*.
39. The issue of perceptibility has been a central concern for many spectralists, leading some notable composers to propose various continua of predictability (such as periodic-statistical or regular-irregular in the cases of Grisey and Saariaho, respectively).

40. Michaël Levinas, “Catalogue Commenté des Œuvres: *Trois Études*,” in *Le compositeur trouvère*, 407–8.
41. Levinas, *Rebonds*, 1.
42. In the creation of this figure, I was particularly inspired by Judith Lochhead’s work in *Reconceiving Structure in Contemporary Music* (2016), where she prescribes “Mapping” as the second step of contemporary music analysis, following sensory-hermeneutic investigation.
43. One particularly interesting feature of this passage is the use of “miniature glissandi” in the fourth primary glissando event, performed by the rest of the ensemble. Due to their moderate speed, these form a mediating layer between the long durations of Piano III and the frantic swirling of Pianos I and II.
44. Gérard Grisey, *Écrits*, ed. Guy Lelong (Paris: Éditions MF, 2008), 171. I do not mean, by mentioning this interesting correspondence, to imply that *Rebonds* had any formative influence on the second movement of *Vortex Temporum*. Rather, I hope to illustrate that the idea of circularity is not just a compelling compositional premise, but also something that can manifest in many different contexts.
45. This large-scale glissando is represented in Example 1’s chart of durations by a large segment that backgrounds the shorter, foregrounded segments of the chart.
46. Levinas, “Sound and its Revelations,” 37:20.
47. Levinas, “Le temps et l’altération,” 170. (Emphasis added)
48. Deleuze and Guattari, *A Thousand Plateaus*, 348–9. (Emphasis added)
49. One of Proust’s important philosophical influences, Henri Bergson, maintained that the reconciliation of conceptual tension through intuition or lived experience—what he termed a “qualitative multiplicity”—is fundamental to an experience of duration [*durée*].
50. Deleuze, in his exegesis of Proust’s great novel, also draws attention to the multiple meanings of *perdre*: “Lost Time is not simply ‘time past’; it is also time wasted, lost track of.” Deleuze, *Proust and Signs*, 3.

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