

# “Die Natur ist hier ... zu Musik geworden”: György Ligeti and (Musical) Nature

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### ABSTRACT

This article traces references to nature and naturalism (understood as an attempt to ground and legitimize art in natural phenomena) in Ligeti’s writings, but also in selected aspects of his oeuvre. The references to nature recur here in various manifestations, with romantic depictions of nature appearing alongside more recent, modernist approaches. The concept of nature is associated with the romantic setting for human emotions, with the discovery of scientific laws, with listening to soundscape, with phenomena of auditory perception and with the spectral explorations of sound. Although nature is not a central, strategic concept for Ligeti, it remains a constant, even if hidden, context for his work, a point of reference.

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### KEYWORDS

modernism, soundscape, science, spectralism

In his book *Out of Time: Music and the Making of Modernity*, Julian Johnson repeatedly emphasizes that musical modernity reflects the loss of Arcadia, Eden, an unspecified but no longer attainable original, natural state. The history of musical modernity shows that in a situation of longing for Arcadia, music, and more specifically the physicality and sensuality of sound, are often regarded as the embodiment of nature.

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The physicality of sound stands in for a mediated nature against the history embodied in musical forms. This is the basis for the homology between the sense of reverent awe experienced before natural beauty and that occasioned by music ...<sup>1</sup>

Both modernity and its twentieth-century chapter, modernism, however, are characterized by an irremovable split between a rationalization of musical language as a means to an end<sup>2</sup> and a rejection of these rationalist tendencies in favor of “the concrete and embodied nature of music as sound.”<sup>3</sup>

According to Johnson, modernity does not ultimately take sides. Rather, we can speak of a permanent, creative “constitutive tension.”

If one part of musical modernity has been to approach the conditions of a language, and to imitate its grammatical structures, its opposite twin has been to resist this process through an emphasis on its nature as unrationalized sound. Music is always both ...<sup>4</sup>

György Ligeti is known for his defence of musical modernism and its values,<sup>5</sup> as well as his unequivocal statements on the autonomy of music and its abstract, quasi-mathematical structure.<sup>6</sup> Perhaps for this reason, the relationship between music and nature is not a topic that imposes itself in the first place when reading the composer’s writings and when listening to or studying his works. However, in-depth interpretations of his thoughts and works prove that what was important to the composer did not always have to be emphasized by him, and that his statements are also worth reading “between the lines.”

In the following article, I will attempt to answer the question of how Ligeti’s music and thought are situated in the aforementioned creative, “constitutive tension.” In doing so, I will consider mainly his writings, but also selected aspects of his oeuvre. The theme of variously understood nature or naturalism (explained as an attempt to ground and legitimize art in natural phenomena) recurs in his thinking, with the reader and listener receiving some hints rather than explicit declarations on these issues.

## 1. AUTOBIOGRAPHICAL THREADS

Ligeti very often legitimizes his work with themes drawn from his childhood, from the past, so it is worth looking first at how the concept of nature manifests itself in his memories. In his

<sup>1</sup>JOHNSON, *Out of Time*, 310.

<sup>2</sup>Gianmario Borio argues that “The centrality of [musical] construction can be considered a parallel phenomenon to the affirmation of a ‘means/ends rationality’ which, according to Max Weber, is the salient feature of societal modernization.” See TUNBRIDGE et alii, “Round Table,” 180.

<sup>3</sup>JOHNSON, *Out of Time*, 287.

<sup>4</sup>Ibid., 279.

<sup>5</sup>Ligeti points out that “serious” [“ernste”] music has fallen into a niche and lost its social significance. See “Neue Musik und Zukunft,” in LICHTENFELD (ed.), *Gesammelte Schriften*, vol. 2, 66–67. He compares this niche to a soap bubble, but nevertheless highlights its inexhaustible potential “[i]ts extent is infinitely small, but the possibilities for its spiritual expansion are infinite” [“Ihre Breite ist unendlich klein, ihre geistige Ausbreitungsmöglichkeit aber unendlich weit”]. See “Rhapsodische Gedanken über Musik, besonders über meine eigenen Kompositionen,” in LICHTENFELD (ed.), *Gesammelte Schriften*, vol. 2, 134.

<sup>6</sup>See “Apropos Musik und Politik,” in LICHTENFELD (ed.), *Gesammelte Schriften*, vol. 1, 232–236.



retrospective, the composer strongly emphasizes his fascination with science. In this typically modern view, nature appears as something to be discovered and explained, and the natural sciences become synonymous with its cognition. In an interview with Eckhard Roelcke, Ligeti recalls his childhood chemical experiments and, with his typical sense of humor, explains that the big explosion was intended to throw Grandma out of the playroom where he and his brother lived.<sup>7</sup> In secondary school, he was fascinated by the chemical structure of chlorophyll and built up an idea of it from textbook illustrations.<sup>8</sup> He was also interested in the then still undiscovered structure of haemoglobin and other proteins, which would successfully solve the “mystery of life.”

Ligeti projects already fully mature reflections onto his childhood memories when he says: “If you look for a mystery, you will find nothing. You can do detailed experiments, then the whole thing emerges like a mosaic.”<sup>9</sup> He expresses an analogous thought in his speech on the occasion of the presentation of the Kyoto Prize: “Science cannot serve to clarify holistic enigmas: only the detailed working out of well asked questions can give valuable results.”<sup>10</sup> In these statements, Ligeti distances himself from a mystical account of nature and, at the same time, from a claim to a comprehensive knowledge of it. In doing so, he moves away from the concepts associated with German philosophy, in which nature was idealized and seen as fullness, wholeness, unity.<sup>11</sup> He accepts a partial, specialized cognition close to the attitude of the modern scientist.

In his story, Ligeti also highlights his youthful dreams and far-reaching ambitions, which ultimately led him to a nervous breakdown: “I had a naive idea of becoming a composer and a biochemist at the same time.”<sup>12</sup> The setting for these crisis emotions of Ligeti again becomes nature, or more precisely the botanical garden in Cluj. In the composer’s memories, the beauty of this place, full of charm, inspiration and birdsong, contrasts all the more strongly with his negative emotions: “in the enchantment of this garden, I don’t know how, I fell into a crisis.”<sup>13</sup> Ligeti recalls the picturesque location and landscape of the botanical garden. “It was very large, with streams and ponds, and steep, with valleys and hills.”<sup>14</sup> And the references to a Japanese garden, or a pavilion with tropical flowers, might be a hint of the non-European fascinations typical of his later work.

<sup>7</sup>Eckhard ROELCKE, *Träumen Sie in Farbe. György Ligeti im Gespräch mit Eckhard Roelcke* (Vienna: Zsolnay Verlag, 2003), 24.

<sup>8</sup>Ibid., 25.

<sup>9</sup>“Wenn man ein Mysterium sucht, findet man nichts. Man kann Detail-Experimente machen, dann ergibt sich das Ganze wie ein Mosaik.” ROELCKE, *Träumen Sie in Farbe*, 26.

<sup>10</sup>György LIGETI, “Between Science, Music and Politics,” <[https://www.kyotoprize.org/wp-content/uploads/2019/07/2001\\_C-1.pdf](https://www.kyotoprize.org/wp-content/uploads/2019/07/2001_C-1.pdf)> (accessed: September 10, 2017).

<sup>11</sup>The understanding of nature as a moral ideal, a symbol of ideal happiness and inner unity, is rooted in the thought of Friedrich Schiller. It is also reflected in the music of early German Romanticism. Cf. TRZĘSIOK, *Pieśni drzemią*.

<sup>12</sup>“Ich hatte naive Vorstellung, Komponist und Biochemiker gleichzeitig zu werden.” ROELCKE, *Träumen Sie in Farbe*, 33.

<sup>13</sup>“[I]m Zauber dieses Gartens bin ich, ich weiß nicht wie, in eine Krise geraten.” Ibid., 40.

<sup>14</sup>“Er war sehr groß, mit Bächen und Teichen, und steil, mit Tälern und Hügeln.” Ibid., 39.



Even from the recollections themselves, an ambiguous, not to say contradictory, picture of nature emerges. On the one hand scientific and modern, on the other nostalgic, as if from a romantic song. Both perspectives, however, are strongly anthropocentric, and in both cases nature is subject to man. In the first case, man explores nature, even if partially; in the second, nature serves as a setting for human feelings.<sup>15</sup>

The scientific thread will remain clearly present in Ligeti's work both at the level of language (the terminology used to describe compositional techniques, such as "interferences and current patterns," "self-similar constructions"), compositional strategies (such as using an acoustic model and simulating the Doppler effect in the *Hamburg Concerto*) and at the level of ideas, because Ligeti contrasted universalism and freedom of science with political and ideological particularisms.<sup>16</sup> Frederik Knop points out that "Ligeti's primary connection to scientific discourses seems to have been rooted in and grown out of a strong identification with scientific values and parameters."<sup>17</sup> It was these values, in the face of uprooting, distancing himself from totalitarian ideologies and nationalisms, that created for Ligeti his second homeland, home, site of belonging, transnational and intercultural. "For him they provided a potentially and ideally universal, unchanging laboratory."<sup>18</sup>

Nature as a scenery for human emotion, often inspired by folklore, recurs in songs composed by Ligeti, early and late in his career. In Ligeti's *Ur-Laments*, as Amy Bauer calls them, the sadness of the landscape also reflects the sorrow of the protagonist, as happens in *A bujdosó* from *Five Arany Songs* (1952) due to the large-scale falling second motion in the bass-line and the dissonant harmonies.<sup>19</sup> Interestingly, traces of Debussy's work and particularly his prelude *Footsteps in the Snow* can already be seen at this stage. This composer would become important to Ligeti in the years to come, not only because of his abandonment of thematic work, but also because of his sensitivity to musical images of nature. In *Three Fantasies after Hölderlin* (1982), Ligeti returns to the musical setting of poetic texts after two decades. In the first *Fantasia, Hälfte des Lebens*, by overlapping different parts of the texts and using the canonic technique, he depicts the generosity of nature, the "abundance of the realm of the living."<sup>20</sup> In the *Hungarian Études* (1983), on the other hand, a frog concerto with elements of micropolyphony and madrigal<sup>21</sup> is part of the poetics of the absurd typical of his late period.

## 2. WEBERN'S SELF-SUFFICIENT COSMOS: NATURE WITHOUT NATURALISM

One may wonder what Ligeti's aforementioned "detailed experiments" consist of within the profession he ultimately chose. The reception of Webern's music in the composer's writings

<sup>15</sup>Nature can also be the setting of human feelings, to which we give a Kantian moral sense. Such an attitude towards nature can be found in the music of Ludwig van Beethoven, among others. TRZĘSIÓK, *Muzyka doświadczenia*, 366.

<sup>16</sup>KNOP, "Making it Home," 99.

<sup>17</sup>Ibid., 94-95.

<sup>18</sup>Ibid., 95.

<sup>19</sup>BAUER, *Ligeti's Laments*, 27-28.

<sup>20</sup>MICHEL and STAIBER, "Rediscovering the Meaning," 53.

<sup>21</sup>BAUER, "The Cosmopolitan Absurdity," 166.



sheds interesting light on this question. It testifies to the fact that, in line with the modernist conviction, nature can manifest itself through sounds, and thus the study of hidden relations between sounds becomes synonymous with its discovery.

Anton Webern, a key reference point for many composers in the Darmstadt circle, marks the main thread of Ligeti's writings in the late 1950s and early 1960s.<sup>22</sup> The composer draws attention to Webern's compositions from his early and middle periods (for example *Entflieht auf leichten Kähnen* op. 2, *Sechs Stücke für Orchester* op. 6, *Vier Stücke für Geige und Klavier* op. 7, *Fünf Stücke für Orchester* op. 10), also emphasizes his links to Romanticism and boldly speaks of traces of expressivity in his works at a time when they were generally treated as suspected relics of the past.<sup>23</sup> He also sees connections between Webern's music and that of Claude Debussy,<sup>24</sup> showing both composers in a special light. From Debussy's works he brings out the reduction of musical expression, the static nature of the form and its lack of hierarchy due to the abandonment of the leading tone and thematic work. To illustrate this, he uses an evocative metaphor when he writes that musical Gestalten in the music of Debussy and Webern "lie like bricks without mortar in the masonry of the mould."<sup>25</sup> Marcin Trzęsiok, writing about Debussy's music from the perspective of the psychological theory of Leonard B. Meyer, emphasizes that the departure from the internal hierarchy of the work also implies a deviation from our expectations and perceptual tendencies to anticipate the order of the work

The repetitions do not serve, here, good continuation, but act rather in a static manner, as if they were aimed at a clearer tracing of the contour of a given segment. In short, contrast and repetition are introduced in order to harness our perceptual tendencies to an experiment in which the anticipated order is unable to crystallise.<sup>26</sup>

On the other hand, from Webern's music, commonly associated in the circle of avant-garde composers with the notion of structure, Ligeti brings out its Romantic roots and nuanced relationship to the imitation of nature. It seems that his description of Webern's music also becomes a pretext for commenting on aesthetic notions, such as "naturalism" or "pure music," which are often used in a one-sided or tendentious manner. In *Sechs Stücke für Orchester* op. 6, Ligeti does recognize "Assoziationswirkung,"<sup>27</sup> (the quiet tremoli of the bass drum evocating the sounds of a distant thunderstorm, funeral march music and the sounds of bells) but defends Webern against the accusation of "naturalism" in a degrading sense. According to Ligeti, Webern's music does not lose its "purity" and autonomy despite the associations evoked, and when he writes about "nichtrealen Bereiche reiner Musik"<sup>28</sup> of *Sechs Stücke für Orchester* op. 6

<sup>22</sup>See inter alia his writings "Weberns Klangfarbentechnik," "Weberns Melodik," "Weberns Harmonik," and "Webern und die Tradition," in LICHTENFELD (ed.), *Gesammelte Schriften*, vol. 1, 331-336, 337-342, 347-352, and 379-382.

<sup>23</sup>The originality of Ligeti's interpretation of Webern's music was already being discussed in the mid-1980s, pointing to the similarity of the reception of this composer by other authors associated with Darmstadt, such as Dieter Schnebel or Henri Pousseur. See BLUMRÖDER, "Ein weitverzweigtes Spinnennetz," 27-37; Diskussion, 39.

<sup>24</sup>"Webern und die Romantik," in LICHTENFELD (ed.), *Gesammelte Schriften*, vol. 1, 345.

<sup>25</sup>"... liegen wie Ziegel ohne Mörtel im Gemäuer der Form." Ibid.

<sup>26</sup>TRZĘSIOK, "Claude Debussy," 175. The musical examples given in the article are taken from the etude *Pour les quarts* and the prelude *Ondine* by Claude Debussy.

<sup>27</sup>LICHTENFELD (ed.), *Gesammelte Schriften*, vol. 1, 345.

<sup>28</sup>Ibid.



or “zarte und eigentümliche Poesie”<sup>29</sup> of *Fünf Stücke für Orchester* op. 10, he formulates the ideal of autonomy not in an abstract but in a Romantic manner.

Ligeti concludes: “Perhaps Webern’s extraordinary differentiation of sound color results from his ability to listen out for the subtlest sounds of nature and to detect and shape the sound relationships which had previously remained hidden.”<sup>30</sup> This statement brings to mind far-reaching conclusions. Here, the series of timbres, initiated in the works of Webern, seems to be naturalistically grounded. The relations between sounds, ordered in an abstract way, have their origin in the ability to listen, in the psychophysical experience of the particularity of sounds and in tracing of sonic relations in the environment. In this way, “nature here also has become music as in *Nuages* from *Trois Nocturnes* or in *Les Parfums de la Nuit* from *Ibéria*.”<sup>31</sup> Ligeti mentions Webern’s listening skills and comments on the musical symbols of the Alpine world in op. 10. On the other hand, he distances himself from the contents of Webern’s letters and authorial comments (including the analysis of the String Quartet op. 28), regarding them as naive clues to the interpretation of autonomous works and discrediting the role of self-interpretation in general.<sup>32</sup> By this he also rejects the autobiographical thread, so significant for Webern but also for himself. Yet on at least two issues Ligeti’s interpretation of the early 1960s seems to correspond to the reading of the Viennese composer in recent decades. Ligeti reminds us of the materiality and particularity of music,<sup>33</sup> and when he stresses that “transfigured Romanticism” cannot be limited to onomatopoeic effects he seems close to what Johnson termed “redefinition of the idea of nature” within “the post-tonal musical universe – unrooted, decentered, spatial rather than temporal.”<sup>34</sup> In Johnson’s words, Webern’s music “does not trace a narrative of the subject and does not project an opposition of man and nature. It is a passive and complete music, whose materiality becomes transparent to the intellectual principles by which it is shaped.”<sup>35</sup> Ligeti, trying to encompass the phenomenon of the music of the Viennese composer, reaches for the metaphor of self-sufficient cosmos:

Owing to such a subtle compositional technique Webern makes the forces which sustain this cosmos work only towards the interior, while the cosmos as a whole rests on itself, floating freely without a point of support in the imagined space.<sup>36</sup>

<sup>29</sup>Ibid.

<sup>30</sup>“Vielleicht ist Weberns außergewöhnliche Klangfarbendifferenzierung gerade seiner Fähigkeit zu verdanken, die subtilsten Klänge der Natur zu erlauschen und klangliche Beziehungen die bisher verborgen waren, aufzuspüren und zu gestalten.” Ibid.

<sup>31</sup>“Die Natur ist hier ebenso zu Musik geworden wie in *Nuages* aus *Trois Nocturnes* oder in *Les Parfums de la Nuit* aus *Ibéria*.” Ibid.

<sup>32</sup>BLUMRÖDER, “Ein weitverzweigtes Spinnennetz,” 27–37; Diskussion, 37–43.

<sup>33</sup>In this he is of the same mind as Johnson. Cf. JOHNSON, *Webern*, 214.

<sup>34</sup>Ibid., 231.

<sup>35</sup>Ibid., 233.

<sup>36</sup>“Anton Webern zum fünfundsiebzigsten Geburtstag,” in LICHTENFELD (ed.), *Gesammelte Schriften*, vol. 1, 328.



### 3. SOUNDSCAPE AND SOUND MEMORIES

Space (*Raum*) and its impact (*Raumwirkung*) are a recurring theme in the context of Ligeti's music,<sup>37</sup> often clearly inspired by him. The relationship between music and nature, which, as in (the case of) the description of Webern's composition, is not represented by images but by sounds, also seems to be revealed in the concept of space. Indeed, space in Ligeti's writings very often bears the hallmarks of soundscape and turns out to be essentially a sonic phenomenon.

Sounds, including those that make up a musical composition, are not treated as abstract, acoustic objects, but as part of the human environment. They carry associations, memories and, according to Raymond Murray Schafer's thinking, form a soundscape, "a field of interactions, even when particularized into its component sound events."<sup>38</sup>

This is particularly evident when Ligeti discusses the technique of collage. The composer argues that, in the case of Charles Ives or Gustav Mahler, it derives from "acoustic events that one can gather during a fair or Oktoberfest"<sup>39</sup> rather than from the "terminus technicus" of the visual arts. He brings in vividly described experiences from St Mark's square in Venice:

Around the square there are three cafés, from which can be heard parlor music, and the bands play even in the open air. Often there are three different tempos and tonalities. The musicians cannot hear each other. In order to hear all of them at the same time you must stand in the middle of the square.<sup>40</sup>

In this quote, as in Schafer's writings, the human soundscape is understood as a fullness, a "plenum" in which there are always some processes taking place, and sounds reach us from different directions. "They come from far and near ... They enter and depart in processions as events pass us or we pass them. This is why the music of the streets has no beginning or end but is all middle."<sup>41</sup> Ligeti writes with his usual pinch of irony about New Year's Eve in Paris in 1957: "This was a wonderful composition, that could have come from Cage"<sup>42</sup> and documents the "wonderful wind concerto" performed by the cars at the crossroads. "The whole had the effect of a hundred sounds of brass wind instruments moving through space."<sup>43</sup> With ironic detachment, the composer here approaches the idea of soundscape composition.

<sup>37</sup>This is evidenced, among other things, by the fact that one of the symposia on the centenary of Ligeti's birth was entitled *Ligeti – Raum – Interpretation* (Staatliches Institut für Musikforschung Preußischer Kulturbesitz, Berlin, February 14–15, 2023).

<sup>38</sup>SCHAFFER, *The Soundscape*, 131.

<sup>39</sup>"Eher handelt sich um akustische Erlebnisse, die man auf einem Jahrmarkt oder auf dem Oktoberfest sammeln kann." LICHTENFELD (ed.), *Gesammelte Schriften*, vol. 1, 286.

<sup>40</sup>"Um den Platz herum verteilt gibt es drei Kaffeehäuser, aus denen Salonmusik zu hören ist, die Kapellen spielen sogar draußen im Freien. So ertönen oft drei verschiedene Tempi und Tonalitäten. Die Musiker hören sich gegenseitig nicht. Man muß, um alle gleichzeitig zu hören in der Mitte des Platzes stehen." *Ibid.*

<sup>41</sup>SCHAFFER, "Music," 36.

<sup>42</sup>"Es war ein wunderbares Stück, das von Cage hätte stammen können." LICHTENFELD (ed.), *Gesammelte Schriften*, vol. 1, 286.

<sup>43</sup>"... wunderbare[s] Hupkonzert," "Das Ganze wirkte wie hundertfache Blechbläserklänge, die sich im Raum bewegen." *Ibid.*



What is striking in the quotations cited is not only the naturalism of the description, although at the time – already in the 1970s – Ligeti does not use this word at all, but also the suggestion of the key role of sonic memories. The ease with which Ligeti himself points to the sources of collages in the reminiscences of Ives and Mahler indicates he was no stranger to that kind of identification:

We know ... that Ives's father, who was a military band-leader, on one occasion arranged for three brass bands to march towards the main square of their village. They came from three different directions, each playing a different march. That was the first time Ives had heard three different marches played simultaneously. We also know that Mahler was a keen observer of how the sound of various brass bands, roundabouts and musical automata blended at a fair; he thought that was real polyphony. And it is what you find in the development section of his Third Symphony.<sup>44</sup>

From the names cited, one can conclude that if Ligeti values “soundscape compositions,” it is certainly those away from mimetic, naturalistic documentary in favor of the subtlety of musical arrangement. The quotation of Mahler is also indicative of a fondness for old-fashioned technology. Ligeti himself implicitly suggests the soundscape background of his work when he recalls in his memories the sound of his father's typewriter.<sup>45</sup> However, in *San Francisco Polyphony* (1974), a composition that could contain references to the sounds of the city, he mentions rather inspirations from visual stimuli (space, architecture, mist), and the drafts are largely graphic.<sup>46</sup> And yet mechanical patterns gain a new sonic interpretation when Ligeti convinces us that a “[m]achine-like, hectic quality makes you think of a big American city”<sup>47</sup> and he links his expressive melodies to Alban Berg and Gustav Mahler and indirectly to the concert soundscape of Vienna.<sup>48</sup> In the sketches we also find references to the “tumult” or to the “Mahlerian” tempo,<sup>49</sup> and thus indirectly to the associations with the soundscape evoked by Mahler's music.

The references to the soundscape demonstrate the important role of unique sound memories and of the local sound environment for Ligeti. The concept of nature is mediated by sounds, understood as site-specific entities forming meaningful configurations. It is in these statements that Ligeti most distances himself from an autonomous, quasi-mathematical approach to music.

#### 4. SPECTRAL NATURE

According to Johnson, the idea of *corps sonore*, introduced by Jean-Philippe Rameau and supported by the scientific research of the time “anticipates by more than two hundred years the project of musical spectralism and its enquiry into the nature of sound itself.”<sup>50</sup> In the spectral current, the “sense of music” is seen “not as a linear journey or narrative, not as a plot or

<sup>44</sup>[Without ed.], *György Ligeti in Conversation with Péter Várnai, Josef Häusler, Claude Samuel and Himself* (London: Eulenburg, 1983), 25.

<sup>45</sup>I wrote about this in more detail in SCHREIBER, “The Structure of Thought,” 32.

<sup>46</sup>They are discussed in detail by OKUMARA, “Sketches,” 203–218.

<sup>47</sup>[Without ed.], *György Ligeti in Conversation*, 67.

<sup>48</sup>*Ibid.*, 66–67.

<sup>49</sup>STEINITZ, “À qui un hommage,” 175.

<sup>50</sup>JOHNSON, *Out of Time*, 288.



drama of events, not as a discursive working out of an argument or idea, but as the elaboration of a single body of sound ... .<sup>51</sup>

The notion of nature, and in particular the sound organism, is very much inscribed in the discourse of spectralism, especially that of its leading exponent, Gérard Grisey. His metaphors is largely based on contrasting the organic nature of sound with its lifeless serial image.<sup>52</sup> Monika Lichtenfeld, although she does not refer to the spectral trend, also points out that Ligeti's music differs from the hitherto "Sprachlichkeit" of Western music and its rhetorical systems. The composer explores the nature of sound instead:

Just as in nature elementary effects are based on the workings of complicated laws, the knowledge and application of which enables the mastery of nature, so Ligeti explores the nature of sounds, organizing their inner relationships and movements in such a way that they can be comprehensively recognized, experienced, although they remain a function of a whole, a complex, an oversummative outer form ... .<sup>53</sup>

As Benjamin Levy argues, Ligeti shares with spectralism not only a creative attitude (on this fact researchers generally agree, and Ligeti is traditionally mentioned in the artistic genealogy of spectralism), but also compositional techniques. Spectral attitude manifests itself, among other things, in "blurring the lines between harmony and timbre, emphasizing gradual transformations of material, and delving into the inner workings of sound."<sup>54</sup>

Ligeti, who, on the one hand, did not want his music to be classified as spectral, on the other hand often approached spectral rhetoric. He emphasized the opposition of freedom and control, which could be read in a political context.<sup>55</sup> Like the spectralists, he also argued that integral serialism, which does not respect human perception, should be considered unnatural.<sup>56</sup> It is the conscious shaping of human perception that becomes the probe of spectral "naturalness," with Ligeti, like Gérard Grisey, making great use of subtle perceptual thresholds.<sup>57</sup>

Among other things, Ligeti explores the boundary between discrete (discontinuous) and continuous perception of sound sequences. In musical passages in which the number of beats reaches 16 units per second (e.g. *Continuum*, 1968; *Hungarian Rock*, 1978), the human ear finds it difficult to separate them from each other. The composer's typical procedures also include the enhancement or blurring of sound figures by means of dynamic and textural changes and the grouping of sound stimuli according to register, e.g. by placing the individual steps of a chromatic scale in different octaves (*Apparitions*, 1958–1959; *Cello Concerto*, 1966) Ligeti also makes use of differential tones arising in the voice or flute part (*Atmosphères*, 1961; *Lux Aeterna*, 1966).

<sup>51</sup>Ibid.

<sup>52</sup>SCHREIBER, "Skelett der Zeit," 78–96.

<sup>53</sup>"So wie in der Natur elementare Wirkungen auf dem Wirken komplizierter Gesetze beruhen, deren Erkenntnis und Anwendung Naturbeherrschung ermöglicht, so durchforscht Ligeti die Natur der Klänge, organisiert er ihre inneren Beziehungen und Bewegungen derart, daß sie zwar nachvollziehend erkannt, erfahren werden können, obwohl sie Funktion eines Ganzen, Komplexen, einer übersummativen äußeren Gestalt bleiben." LICHTENFELD, "Und alles schöne," 125.

<sup>54</sup>LEVY, "Ligeti's Distant Resonances."

<sup>55</sup>DROTT, "Spectralism," 39–60.

<sup>56</sup>LEVY, "Ligeti's Distant Resonances."

<sup>57</sup>In the following subsection I rely in part on my text: SCHREIBER, "Twórczość Ligetiego," 75–94.



As in Grisey's music, the fluid boundary between the perception of timbre and chord plays an important role. In micropolyphonic compositions, illusions of chordal sequences are often created when the timbre changes. Ligeti is also close to periodicity, facilitating the internal division of the piece. This is often created by the regular repetition of the same pitches or pauses (*Continuum*, 1968; *Violin Concerto*, 1989–1993).<sup>58</sup>

All the above-mentioned procedures in practice often serve to produce auditory illusions and paradoxes.<sup>59</sup> For Richard Steinitz, author of the monograph *Music of the Imagination* (2003), the Hungarian composer appears above all as a great illusionist. It is at this point that the tension between "nature" and "imagination" arises, for the latter is the proper domain of art. Although auditory illusions do not play a key role in Grisey's work, he was also aware of the deformation of reality that takes place in music. It affected not so much the reception as the composition itself based on natural but transformed models.

From now on, the musical form becomes the revelation on a human scale, the projection of a natural microphonic space on an artificial and imaginary screen. Moreover, this screen is at the same time a distorting mirror, focusing, multiplying, selective, "corrosive," etc.<sup>60</sup>

Benjamin Levy points out that spectralism has moved from scientific inquiry to mystic exploration or more expressive ideas, as evidenced by the work of composers such as Jonathan Harvey, Kaija Saariaho and Claude Vivier. This is similarly the case in Ligeti's music, where spectral, microtonal "nature" is combined with the image of nature in the context of horn-playing in natural tuning (as in *Hamburg Concerto*, 1998–1999 and, for the first time in Ligeti's oeuvre, in *Concert Românesc*, 1951). As Levy argues

[t]he use of the horn often suggests ideas of physical distance – rustic instruments sounding from a mountainside or post horns approaching from afar – but moreover, for Ligeti this kind of usage brings up associations with distant lands, and in this way forms another connection to the music of Vivier.<sup>61</sup>

## 5. CONCLUSION

Ligeti's remarks shed light on the concept of nature and its transformations in relation to his thinking and composing. Nature is associated with the scenery for human emotions, with the discovery of scientific laws, with listening, with phenomena of auditory perception and above all, with the concrete quality of sound.

In Ligeti's thought the references to nature recur in various manifestations, with romantic depictions of nature appearing alongside more recent, modernist approaches. Ligeti never rejects the notion of naturalism outright, but only criticizes its tendentious forms. He combines

<sup>58</sup>See SABBE, "György Ligeti," 9–13.

<sup>59</sup>See PURWINS et alii, "Unendlichkeit," 39–80.

<sup>60</sup>"Dès lors, la forme musicale devient la révélation à l'échelle humaine, la projection d'un espace naturel microphonique sur un écran artificiel et imaginaire; mieux encore, cet écran est à la fois miroir déformant, focalisateur, multiplicateur, sélecteur, 'corrodeur,' ... ." GRISEY, "La musique," 53.

<sup>61</sup>LEVY, "Ligeti's Distant Resonances."



universal scientific thought, which has fascinated him since childhood with autobiographical details and a nostalgic memory of a botanical garden. He is interested in discovering the laws of perception, as well as in Webern's listening to nature. He is fascinated both by the acoustic, spectral nature of sound and the uniqueness of the local soundscape of Charles Ives and Gustav Mahler. He combines the exploration of perceptual illusions with the rustic evocation of the horn. Ligeti's concept of nature does not entail clear definitions and strong statements; rather, it turns out to be capacious, nuanced and flexible. Although it is not a central, strategic concept for the composer, it remains a constant, even if hidden, context for his work, a point of reference.

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