

# Musicology Today

Journal of the National University of Music Bucharest

Issue 2 (34) April-June 2018

**Title:** Harmonization of Opposites in Anatol Vieru's Oeuvre

**Author:** Olguța Lupu

**E-mail:** olgotalupu@gmail.com

**Source:** Musicology Today: Journal of the National University of Music Bucharest / Volume 9 / Issue 2 (34) / April-June 2018, pp 111-115

**Link to this article:** [musicologytoday.ro/34/MT34thoughtsLupu.pdf](http://musicologytoday.ro/34/MT34thoughtsLupu.pdf)

**How to cite this article:** Olguța Lupu, "Harmonization of Opposites in Anatol Vieru's Oeuvre", *Musicology Today: Journal of the National University of Music Bucharest* 9/2 (34) (2018), 111-115.

**Published by:** Editura Universității Naționale de Muzică București

*Musicology Today: Journal of the National University of Music Bucharest* is indexed by EBSCO, RILM, and ERIH PLUS

*Olguța LUPU*  
*National University of Music Bucharest*

## Harmonization of Opposites in Anatol Vieru's Oeuvre\*

In my affective memory, Vieru is portrayed as a man of remarkable balance, who refused excess and who belonged to an aristocracy of the spirit particularly due to this choice of a difficult, but golden path. Later, I found in his compositions and in his musicological work the same concern for reaching balance. With Vieru, identifying the golden mean first implies the titanic effort of covering the whole, of becoming aware and of integrating opposites in a seamless whole. One of the results of this endeavor is *The Book of Modes* (Vieru 1993).<sup>1</sup> One more time I skimmed through it in search of new subjects to reflect upon. And they were forthcoming.

First, I understood even more clearly that the modal organization that he proposes, starting with the chromatic whole as a set of reference, as a “reservoir” of notes, is no mere administrative endeavor, of accounting and systematizing, or a census of modes and of modal structures. It is first of all a democratic, impartial act, in which modes and modal structures benefit from equal rights of existence: the chromatic whole, seen by others as the alpha and omega of modern music, is placed in its befitting position (as merely one of the thousands of possible modes); and the so-called *defective* modes are rehabilitated (Vieru 1978). The main objective is not the identification and enumeration of possible structures, but rather the affirmation of their equivalent status on an axiological level. The cartography of the immense territory of

\* Paper presented at the Symposium of Musicology, on April 15th, 2016, under the patronage of the “Chei” International Festival of the National University of Music Bucharest.

<sup>1</sup> The book comprises of two parts: “From Modes to a Model of the Intervallic Musical Thought” (Part 1, 7-148), and “From Modes to Musical Time” (Part 2, 149-281). The first part was previously published in Romanian as Vieru 1980.

modes and the underlining of the common logic of their elaboration, multiplication and affinity make the options for a singular scale (such as, for example, the chromatic whole) seem like a type of almost dogmatic obstruction.

Then, my attention was drawn by the numerous references to *symmetry* as an expression of structural balance. Regardless of whether we talk of the element of symmetry (Vieru 1993: 21), of the symmetrical difference (Vieru 1993: 47), of the complementarity of two modes or modal structures (Vieru 1993: 47-48, 57), of the symmetry of a modal structure (Vieru 1993: 60), or of palindromes and symmetrical axes (Vieru, 1993: 64), symmetry appears as a means of setting in order a multitude of elements in such way as to produce a balanced structure, that would already contain the embryo of beauty.<sup>2</sup>

I found it fascinating to see the holistic means of approaching certain concepts, which can be related to notions coming from the area of physics in general, and from the field of quantum physics in particular. For instance, space and time are seen as inseparable components of a whole which is called *space-time*. In physics, the notions of space and time were understood for many centuries as designating separate realities, and were unified only recently, with the theory of relativity.

Though always present in music, the concepts of continuity and discontinuity have been associated rather with a transformational process, during which the content would become discontinuous or vice-versa. With Vieru however, in works such as *Clepsidra I* and *Clepsidra II* [The Hourglass I and II], the continuous and the discontinuous co-exist through the juxtaposition of several musical structures, which is reminiscent of the co-existence of contraries in quantum physics (light, for example, being both a wave *and* a corpuscle; see Nicolescu 2007: 17-20, Capra 2004: 146-148). Moreover, it is reminiscent of the existence of an included third party (Lupasco 1951; Nicolescu 2005, 2007: 260) that mediates, unifies on a superior level what seems irreconcilable according to binary logic. The same attention to the harmonization of extremes, to maintaining balance determines Vieru to establish an inversely proportional relationship between the salience and the duration of each of the “ephemerides”<sup>3</sup> (which represent the discontinuous layer): the more salient the structure, the less it will last (Vieru 1993: 176).

<sup>2</sup> Symmetry is important in music or plastic arts, as well as in mathematics or physics: “the symmetry between our sense of the aesthetic and between the most important fundamental mathematical forms represents a profound mystery, most likely unsolvable” (Stewart 2010: 12).

<sup>3</sup> The “ephemerids” are isolated events that occur regularly (every 14 bars in the score) and form a second layer in the *Hourglass I*, superposed on a continuum layer.

Similar to the ephemerides in *The Hourglass I*, the inversely proportional ratio is also applied in the case of *Sita lui Eratostene* [The Sieve of Eratosthenes]. However, in this instance, it mediates the balance between the frequency of the appearance and the salience, the most frequent numbers get less expressive structures associated with them, which are quasi-anonymous (the structure associated with 2, for instance, is reiterated each time when, in the succession of numbers, a multiple of 2 shows up), while those that appear very rarely are salient, almost extraordinarily so. The balance obtained, as such, gains an ethical resonance in Vieru's work: "Thus the sieve seems to be an 'equitable' distribution of temporal impact" (Vieru 1993: 215).

Along the same lines, I find it significant to mention the way in which Vieru calculates modal density, believing that each mode has, based on the number of composing notes, two qualities: richness and ambiguity, found once again in an inversely proportional ratio. The richness is represented by the ability of a mode to include other modes (thus representing the intersection of two or several modes). "The product between the richness and ambiguity of a mode is constant ( $2^{12}$ ). In other words, a certain justice, belonging to the very nature of the modes, brings a compensation. . . . The evolution towards complexity of European music has always gained something and lost something else" (Vieru 1993: 50-51), Vieru believes, introducing the same ethical connotations. The fact that, from Vieru's perspective, any mode has at the same time a level of richness and of ambiguity illustrates, on the one hand, his propensity for inclusivity, the impartiality with which he identifies the fragile yet so important point of balance, and on the other hand – his closeness to the principle of complementarity from quantum physics (theorized by Niels Bohr; see Capra 2004: 154, Katsumori 2011: 40) and to old phrases or symbols, such as *coincidentia oppositorum*, coined by Nicolaus Cusanus (another version of the phrase is *contraria sunt complementa*, which can be found on Bohr's emblem) or yin and yang, as images of the whole through the encompassing of contraries in one unity.

The way in which Vieru approaches the diatonic-chromatic couple can also be considered innovative, as it leads to an original vision, profoundly different from the one with which we are used to – according to which a sonorous system is either diatonic or chromatic, thus unable to be both diatonic and chromatic at the same time (Vieru 1993: 100).<sup>4</sup> Vieru suggests a very rigorous

<sup>4</sup> For another synthesis of the two apparently distinct concepts (the so-called "diatonic chromaticism"), see Firca 1966. See also the concept of *polymodal chromaticism*, introduced by Béla Bartók in his Harvard lectures, inside which diatonic and

analytical methodology, demonstrating that any mode is both diatonic *and* chromatic. The diatonic nature is offered by the groups of notes placed in an uninterrupted order in the succession of perfect fifths. The fewer such groups are, the more diatonic in nature the mode will be. In order to establish the degree of chromaticism, one must consider the groups of notes that make up uninterrupted semitone successions. The fewer groups of semitones there are, the more chromatic the tone will be. The DIACRO index measures the degrees of both diatonicism and chromaticism in a given mode, by creating a relationship between the two (the degree of chromaticism being determined by the number of uninterrupted semitone successions, while the degree of the diatonicism is determined by the number of uninterrupted successions of perfect fifths). Vieru's vision encompasses the diatonic-chromatic couple in the same logic of ternary thinking by embedding the included third and by going beyond the logic of binary opposition.

Vieru's intuition of employing an integrative approach to certain musical realities, according to the old principle of the co-existence of contraries – recently confirmed by quantum physics, a field to which the composer makes no explicit reference – is owed most likely to the spirit of his age<sup>5</sup>, to which Vieru reacted with particular sensibility due to his propensity for synthesis and to his disposition towards balance and the holistic approach. In this, he managed to transcend the binary logic, emblematic of the old paradigm of Western thought.

English version by Dragoș Manea

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chromatic form another type of unity: "In our polymodal chromaticism, however, the flat and sharp tones are not altered degrees at all; they are diatonic ingredients of a diatonic modal scale (Bartók 1976: 367; quoted in Kárpáti 1994: 175).

<sup>5</sup> It is important to note that in 1980, when the first volume of *The Book of Modes* was published, only a few works worth noting had been published, tracing the necessary connections between the field of quantum physics and other areas of knowledge (among these, see Capra 1975).

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