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TONE-SEMITONE SCALE – MODAL SYSTEM, EMBLEMATIC FOR PAUL CONSTANTINESCU'S CREATION

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Abstract: *This emblematic mode is a three-stage process: I. anticipations of the mode constitution; II. stage of the constituted mode; III. mode decomposition in subunits. The modal anticipations in the first stage rely on two procedures: modal amplification applied to archetypes that reveal the semitone-tone periodicity (1, 2) and the filling of the minor-third interval within defective systems. With reference to the second stage, note the formative system role (with limited transposition) of the tetrachord. In the third stage, the phenomenon occurs on smaller surfaces and is characterized by premodal-system intertwining, which determines the emphasis on the chromatic aspect of the musical discourse.*

Key words: *Paul Constantinescu, modal language, tone-semitone scale.*

1. Introduction

In terms of modal structures constructed on the tone-semitone range (T-S) we are in the area of the *homogeneous-interval modes*. In this regard, Gh. Firca notes that "Recent times, by the resuscitation of the modal, have restored /.../ proportions and symmetry, the Golden Section (the latter being particular cases of proportionality), non-octavating melodic ranges, tritonic relations", which are factors "projecting a new light on wide-ranging surfaces within contemporary music" [2].

The absolutization of the modal-sequencing tendency, according to the geometrization law, led to the apparition of the synthesized, artificial modes. The modes thereof, having enjoyed, during the XX-th century, theoretical and creative interest, are: tone-semitone mode, hexatonic scale, acoustic mode. These modes possess double identity, derived both from speculation – hence of elaborate character – and from anonymous folkloric practice – of spontaneous character. Therefore, they represent not only the diatonic-chromatic modal synthesis, but also, by the relation spontaneous-elaborate, the natural-artificial synthesis. Likewise, as the similitude of the tone-semitone mode to the bartókian 1:2 mode and to Messiaen's II-nd mode of limited transposition stands out, we are being offered an additional argument in favour of the synthesized origin of this mode.

2. Stabilization stages of the tone-semitone mode

A procedure underlying melodic construction, which the composer also

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derives from folkloric-Byzantine tradition, is the accumulation, in the same melody, of features specific to the synthesis between several modal structures. The first aspect of the aforementioned phenomenon is the non-identity of the same step in different octaves, with emphasis on the particular case of the octachord structures, with the *diapason* of the diminished octave (see the frame of the second set of themes in *Triple Concerto),* ranging between the leading tone (placed in the low section of the scale) and the modal subtone (placed in the high register of the scale). This phenomenon is a premise for the constitution of the composer's specific system of diatonic-chromatic synthesis, the tone-semitone mode.

The blossoming and afterwards full bloom of this mode, emblematic for Paul Constantinescu's creation, is a process that consists of several phases deeply connected to his creation stages. In diachronic terms, they might have the following appearance:

- Premises and anticipations of the mode constitution – corresponding to the first creation stage (1929-1938), wherein the stylistic directions open.
- Stage of the constituted mode, emphasis on the formative contribution of the tetrachord – afferent to the second and third creation stages (1939-1948 and 1949-1956), wherein the language parameters stabilize.
- Break (sectioning, destruction?) of the mode in subunits – corresponding to the fourth creation stage (1957-1963), wherein a new vision on the treatment of the modal stands out.

2.1. Modal premises and anticipations

Modal anticipations, afferent to Constantinescu's first creation stage (*Riga Crypto and the Lapp Enigel*, 1936, *Nuptials in the Carpathians,* 1938) consist in dealing with small, premodal systems (example no. 1, Fig.1).

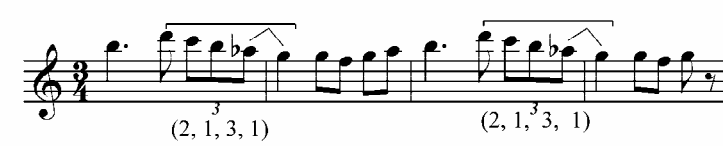

Fig. 1. *Nuptials in Carpathians - Dowry Dance:*

Or with the acoustic tetrachord archetype (example no. 2, fig.2):

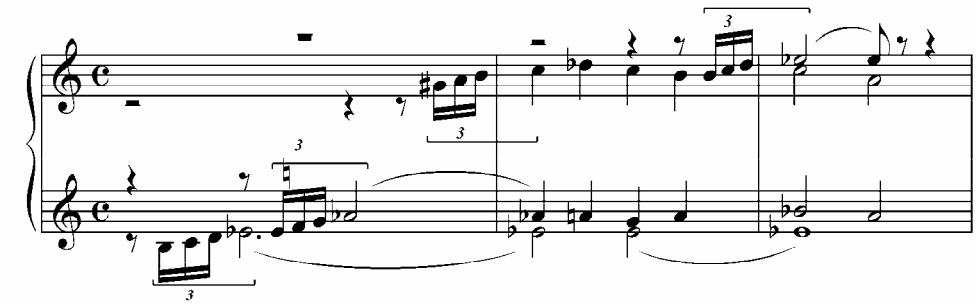

Fig. 2. *Riga Crypto and the Lapp Enigel*

2.2. Stage of the constituted mode

Complex synthesis-systems also stem from reuniting the same modal-microstructure transpositions. For instance, a particularity of Paul Constantinescu's melodic consists in the wide ambitus often built on bichord or trichord microstructures, based on transpositional multiplication, similar to the *principle of the wheel* in Byzantine music. Such constitutions, based on the disjunctive multiplication of the bichord, are ex. 3 (Fig. 3),

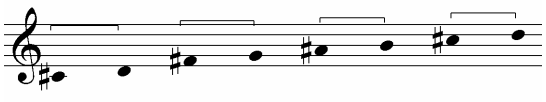

Fig. 3. *Cat with Bells*

conjunctive trichord-juxtaposition (ex. 4 – Fig. 4), or greater-structure-transposition, such as the Locrian pentachord, composed of two conjunctive trichords in the mirror (ex. 5 – Fig. 5), illustrate the tone-semitone mode outlining tendency, specific to the composer.

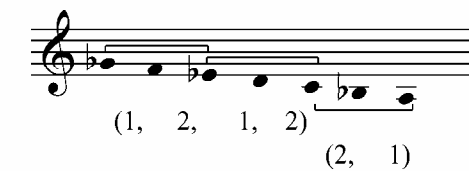

Fig. 4. *String Concerto, p. I*

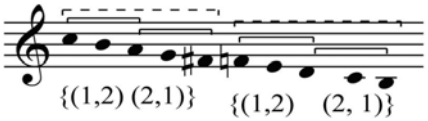

Fig. 5. *String Concerto, p. III*

In the constitution of the *tone-semitone/semitone-tone* modal systems, the formative system role (with limited transposition) of the tetrachord stands out, by the standardized procedure of the juxtaposition to the semitone, similar to Eastern Europe's tetrachord principle. This fact relies, in V. Herman's opinion, on the "premise of the persistence (even latently) of the general tetrachord structure underlying the language" of our entire music. Within the same work, the author specifies that these systems split into two categories, according to the nature of the constituent tetrachords [3]:

- Symmetric systems, consisting of tetrachords with similar placement of the tones and semitones;
- Asymmetric systems, wherein the constituent tetrachords bring different placement of the intervallic units.

In the first category, allegedly generating large-scale works, V. Herman remarks the *String Concerto* (1947) by Paul Constantinescu, wherein the tone-semitone mode, vaguely described as "eight-sound mode, descendent, symmetric, seems to constitute the primordial material, underlying the set of themes" [3].

From the basic thematic outlines (theme I, theme II), grafted onto one of the most important hypostases of the mode, other hypostases circulate in their turn, their material of the mode being more freely used, leaps (of third) over some elements being recorded, divisions of the integral

mode in melodic formulas of tetrachord affiliation being operated (ex. 6 – fig. 6).

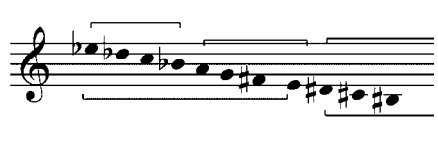

Fig. 6. *String Concerto, p. I*

In this work, deployed scales, of great ambitus, are being birthed by disjunctive consecutions, even intersections of tetrachord, hexachord microstructures; although these constitutive microstructures are of the tone-semitone type, their coupling modalities (conjunctive, disjunctive, interfering) convey an asymmetric aspect to the summative scales (ex. 7 – Fig. 7):

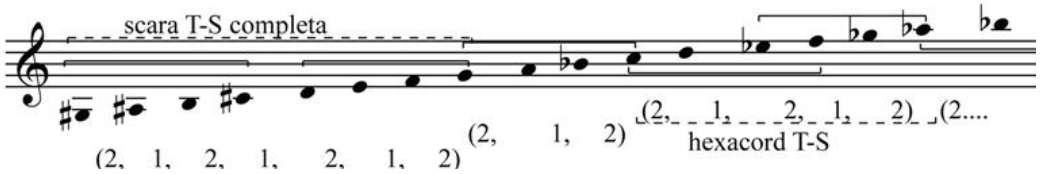

Fig. 7. *String Concerto, p. I*

Incomplete forms of the scale may be encountered in the other parts of their work, ensuring a unitary character, even correspondences of cyclic nature.

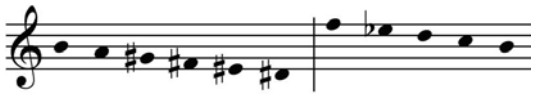

Fig. 8 – *String Concerto, p. II*

The same modal synthesis structure is the emblem for the main theme of *Piano Concerto* (1952), Paul Constantinescu's third period of creation (ex. 9 – Fig. 9).

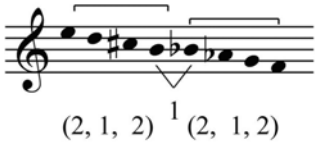

Fig. 9. *Piano Concerto, p. I*

The procedure to reach, in this case, the tone-semitone mode, is the *tetrachord scordatura*, as described by Paul Constantinescu: "I constructed the first theme of my piano concerto from two Dorian tetrachords, yet concatenated through a semitone, giving a modulation to a semitone (from E to F)" [1].

The repeated transpositions determine sometimes the use of a modal potential, whose structures interfere and reunite in the chromatic whole, and achieve thereby a "harmonic phenomenon, very similar to labile tonality" – as shown by E. Terényi [5].

The structures with few elements (for instance 2) result in a minimal intersection, reckoned by A. Vieru as "an expression of the dangers to the tonal centre" [7]. This mechanism looms in the case of reproducing an acoustic tetrachord, as the one below, excerpted from the Fable no. 2 for piano – *Eyeless Cock* (ex. 10 – Fig. 10).

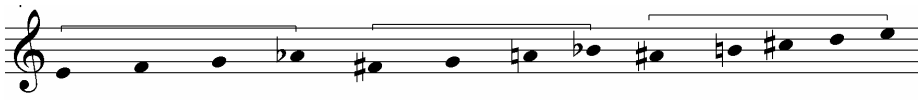

Fig. 10. *Eyeless Cock*

The chromatic-hexachord transpositions in the example below, extracted from *Piano Toccata (Dobroudgea Dance)* (1952), draw near to the chromatic whole.This procedure is not far from the *principle of the wheel* in Byzantine music (ex. 11 – Fig.11).

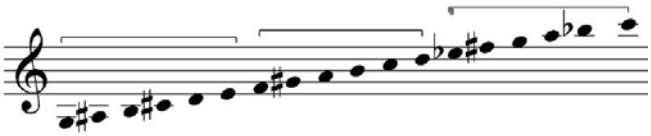

Fig. 11. *Dobroudgea dance*

2.3. Mode-sectioning stage

If the second stage in the constitution of the tone-semitone mode refers to its enhancement as integral heptachord or octachord system, yet illustrating a modal phenomenon that covers wide musical surfaces, in the third stage, afferent to the last stage in the composer's creation, the phenomenon, which covers small surfaces, is characterized by the intertwining of pre-pentatonic, premodal systems, "which however produces an ever more accentuated version of the discourse, in chromatic terms, /.../ and the colour alternation escalates, they acquire changing nuances, their picture becomes polychrome" – as noted by Vasile Herman [4].

The representative work for this last modal phase in the composer's creation is *Triple Concerto for Violin, Cello, Piano and Orchestra* (1963). Here, the melody is no longer conceived in line with the symmetry (or asymmetry) schematism of a basic structure; therefore, the modal (tone-semitone) acts as virtual frame, similar to the tonal-functional frame. This way, it represents the reunion of minimal structures, whose formulation-related aspects unveil the prevalence of primary intervals, such as the fourth or the fifth, in guise of stable elements, tetrachord or pentachord elements; these structures cyclically return, often processed in sequential formulas.

Likewise, the typical formula, consisting of two perfect fourths, reunited at a semitone (5,1,5), a formula "perfectly framable in a heptachord that consists of two tetrachords identically and symmetrically organized, according to the concatenation T-St-T-St-T-St-T, /…/ may be found in manifold variants, either in the melodic context, or in final cadences, yet very often as theme commencement" – as duly noted by V. Herman [4].

This typically bartókian formula, the *Bali* mode, symmetrical structure, called by A. Vieru *palindrome* [7], may be encountered either in tetratonic version, or in tritonic contraction (in bridge or secondary theme), yet in both cases the non-octavating chromatic structural frame stands out.

Greater complexity is being highlighted when certain passages of the *Triple*

Concerto include the chromatic whole. The intention is certainly clear when this intonational potential is being ordered as a scale (for instance, in *bridge,* reference 4, at the orchestra), but it complicates when the chromatic whole is the sum of some melodic formulae intersections, in their turn, of conspicuous chromatic hue. The argumentation for the analytical option, in these cases, will consider the requisite scale segments and the general profiles of the melody (where applicable, the cadential landmarks or the sounds that may stand out as finals). In this light, the beginning of the development comes into being, which moment is, we dare say, the outcome of the microstructure play (1, 2) interwoven and completed in the chromatic whole, complementarily distributed in the two scales tone-semitone / semitone-tone, basic mode-frame (ex. 12 – Fig. 12).

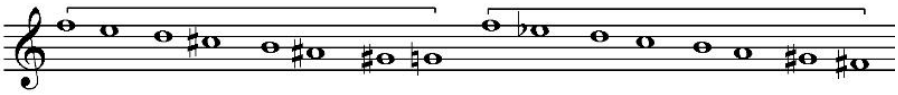

Fig. 12. *Triple Concerto, p. I*

4. Conclusions

We dare say the tone-semitone mode acquires, in Paul Constantinescu's creation, all characteristics of a *modal system,* due to its multiple aspects (complete, incomplete, defective, transposable form and so forth). Therefore it is encountered either as summative scales, which set larger modal frames – global intonational structure – or as modal clippings (sections); which, undergoing laborious modal-operation processes, permanently create the situation of a modal instability, leaving in its turn open the path to possible interpretations of the chromatic concept reflected in the composer's reasoning.

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