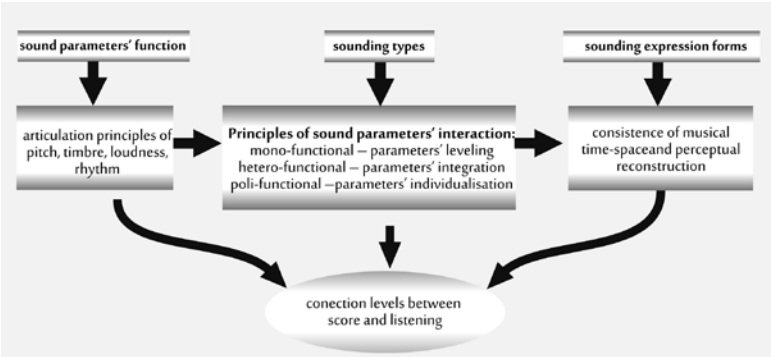
Mārtiņš Viļums

Energy and Condition as Forms of Musical Timespace Articulation in Giacinto Scelsi's *String Quartet No. 4* (1964)

The dimensions of time and space are the fundamental categories of existence which affect the perception of music processing in its own way. The Time-space articulation principles and unfold levels of mental recognition forms in Giacinto Scelsi's String Quartet No. 4 are the focus of this paper. Purpose of the discourse is to explore the principles of time-space articulation in the way they are realized throughout the smallest patterns and structures of form, which derives from the specific of research issues and the principles of time-space analysis crated by the author of the report.[1]



Scheme No. 1. Strategy and hierarchic levels of basic principles of analysis

The analysis of Scelsi's String Quartet No. 4 musical time-space is actualized through the several hierarchical levels of investigational tasks:

- times-pace articulation principles and functional significance of sound parameters (pitch, timbre loudness) for form building strategies;
- with reference to aspects of functional correlation and connections between sound parameters the compositional type is defined;
- recognition of the musical piece as kind of phenomenological (based on *Gestalt*[2] principles) *expression forms*.

Graphical (notational) and sounding (perceptual) aspects of time-space could be integrated into the process of musical analysis (it means, compositional structures and time-space dimensions should be collate with recognition possibilities in the way of comparative approach).

One of the most important Scelsi's compositional aesthetics-related features and innovations are described by the attention focused on the sound internal vibration and timbre (Siqueira 2006: 33–50). An exposure of one tone to various **instruments** provides the possibility to microstructure the core of sound and rearrange the sound timbre. Such timbre is rearticulated by referring to a natural synthesis of instruments (Murail 2005: 178). In this way multi-articulation is created. Scelsi's String Quartet No. 4 (1964) is a striking pattern of music of "one sound". In the composition the string instruments are tuned by *scordatura* in seeking to articulate one tone through all instrument strings. Every string, like a different instrument, is marked as a separate stave in a score. This quartet represents "one gesture", grounded by a continuous stream of sounds and by the processes of consistent and slow development.

---

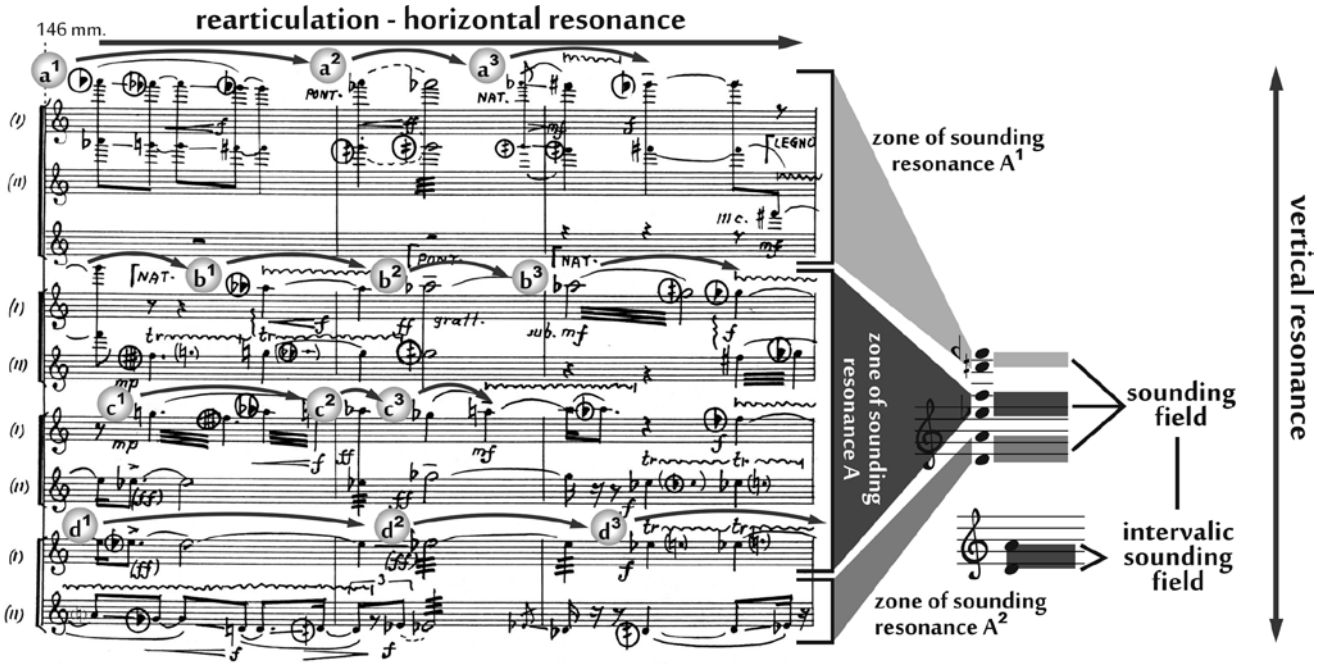
1 The analytical tools are interdisciplinary developed from physical (J. W. Solomon (2007), M. Trochimczyk (2001), etc.), psychophysical (J. Smythies, E. Zeidel (1992) etc.), cognitive and psychoacoustic (A. D. Lyons (2003), D. J. Levitin (2002), R. Shepard (2001), J. M. Chowning (2000) etc.) investigations in the context of music as well as compositional and psychological interpretations of musical dimensions as categories of time (D. Temperley (2001), B. Snyder (2000), J. D. Kramer (1999), G. Grisey (1987), L. B. Meyer (1961) etc.).

2 In *Gestalt* psychology one of the most important criteria of perception explanation is to understand the form as a unity (Ehrenfels formulated this concept as "Gestaltqualitate"). Totality of elements as a mental combination is more significant than the number of its separate parts (Fuchs, Milar 2003: 17; Coren 2003: 105–106; Schirillo 2010: 469). Thus the totality of elements in the aspect of its multisensory perception, according to the author of the paper, can be characterized as the *expression form* of these elements.

Sound parameters articulation in Scelsi's String Quartet No. 4

All the compositional principles are articulated throughout continuous sonoric processes in Scelsi's String Quartet No. 4. The parameter of pitch is not implemented as melodic structures nor harmonic. Contrarily, the processes of pitches are spatially compressed into layers of fused sounding densities, grounded by gliding microtones and small micro-articulations of sonoric qualities. Those layers, as processes of extending and thickened vibrations of unison, are related to non-typical compositional strategies. Therefore, articulation principles, in the way they are realized throughout the unique compositional solutions, should be described.

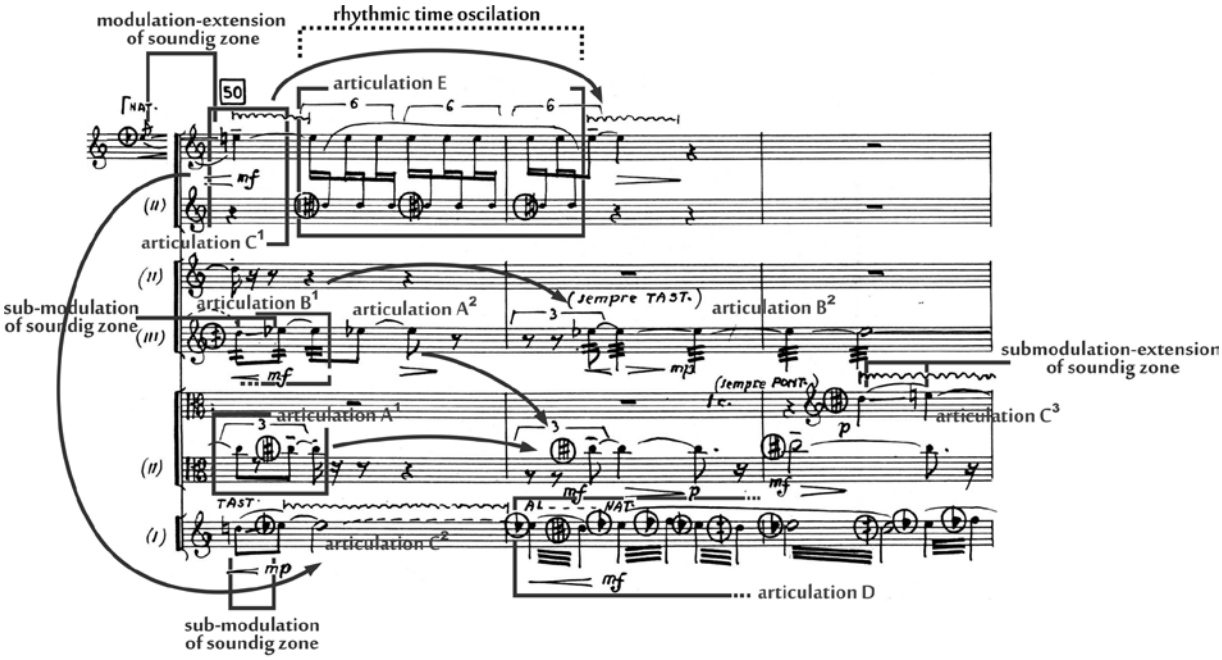
1. The completion of the field of sounding manifests itself in sound exploitation in a certain interval sphere – in a zone (from prime to octave). Resonance is characterized by two aspects of articulating the sounding field – *horizontal* (timbre) and *vertical* (time) *resonance*.



Example No. 1. The aspects of horizontal and vertical resonance in G. Scelsi's String Quartet No. 4

Horizontal resonance is identified as a timbre-related, micro-intonational or instrumental variation – rearticulation of the sounding field in time, while *vertical resonance* – representation of the sounding zone in other registers. Example No. 1 shows how the intervallic region of fused tones (*d–a*) are varied by the different lines of staves – strings. The locations of pitch highs are rearticulated through the alteration of micro-intervals as well as specifics of strokes manipulation (see Example No. 1: a^1, a^2, a^3...; b^1, b^2, b^3..., etc.). *Vertical resonance* is shown as differentiated zones of registers, where the higher are the registers the narrower they are presented (respectively – zones *d–a*; *es–a*; [*f*+]–[*a*-]). Total amount of vertical intervallic distributions through all the registers (intervallic sum of all the resonance zones) is named as *sounding field*. It should be noted, that the term *resonance* have to be interpreted solely from a compositional aspect (not acoustical). Therefore, the intervallic sounding zones could be understood as time-space continuum in which this intervallic area (zone) of pitches is reflected in time (rearticulated) and space (placed in registers) dimensions. Peculiarities of resonant field reveal the unevenness of horizontal and vertical variations – hereby sounding field unfolds as an energetic structure, wherein different kinds of sounding elements and parameters can interact and resonate.

2. Micro-articulation of the structural processes of **pitches** is realized by applying gradual *glissando*, trills of various tempos (from microtones and semitones). Sounding oscillations in the range of microtone's rhythmic repetitions allow us to interpret these articulation types as slowed down *vibrato*, getting the processes of inside musical time compressed or extended:



Example No. 2. Rearticulation principles in Scelsi's String Quartet No. 4

Example No. 2 shows how different articulation types are implemented in order to organize sounding processes in the way of re-layering and alternating condition of sounding zone *d–e*. Amount of all the articulations forms an integral streaming expression of fluctuating energetic mass. The voices heterophonically complement each other and signify the articulation quality (by the *tremolo*, *trill*, *vibrato*, *glissando*, micro-interval's fluctuation etc.). Inasmuch as the processes concerning variation of sound pitches are interpreted by micro-dimensional levels – the relations of **compressed time** (rapid *vibrato* variations of trill nature) and **space** (micro-interval changeability and sound layers), their functional meaning is integrated into the sound *energy* reinforcing expression. In Example No. 2 the two basic articulation functions could be defined:

- gradual *glissando* as modulation of sounding field, which is extended (intervallically) or submodulated within local place of sounding zone (without extending sounding field);
- micro-articulation processes, which could be interpreted as a kind of oscillating conditions, rearticulation of sounding field.

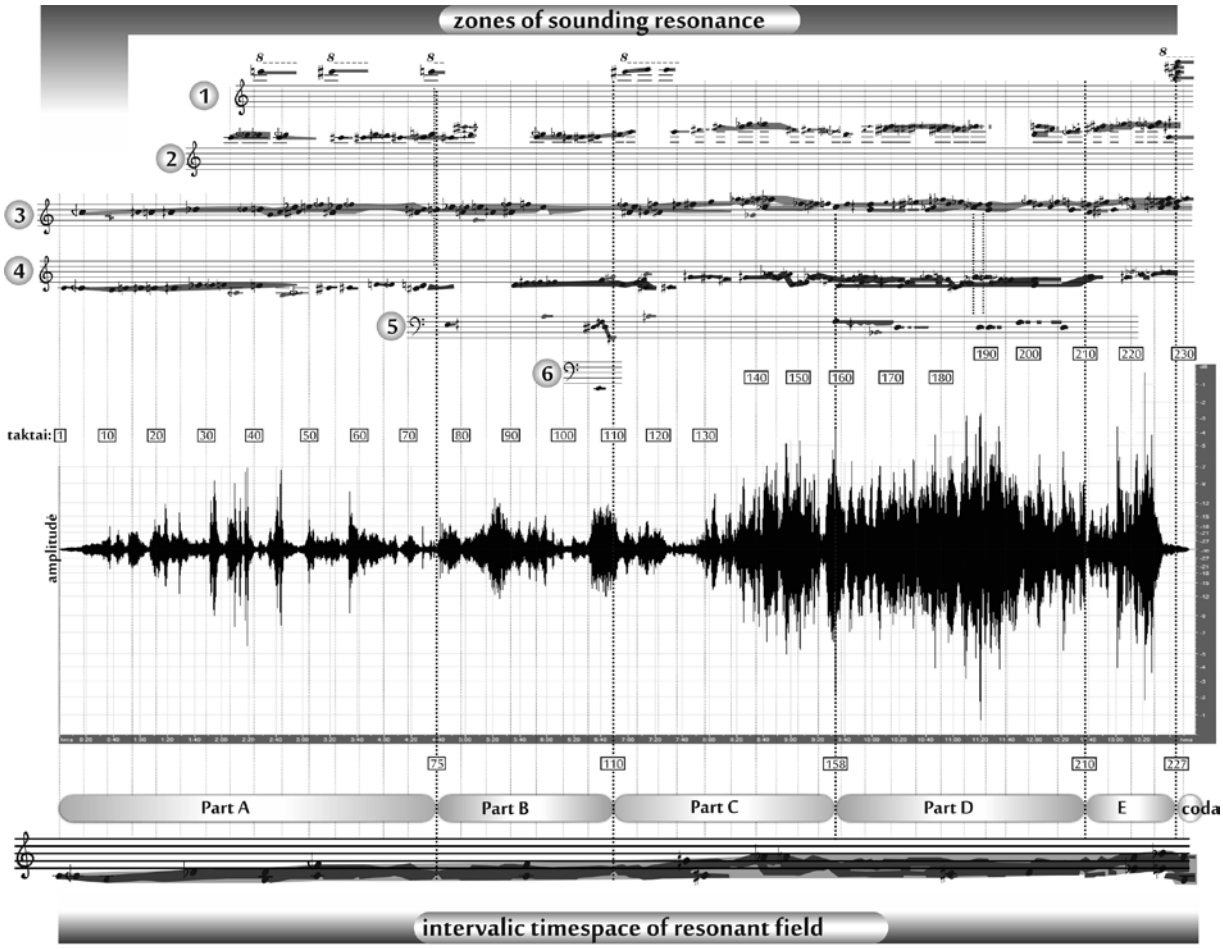
3. Articulation of pitch could be described as extending and ascending intervallic field in the range of *c*- to *hes* as well as gradually extending width of sounding field from *c*- to *e–hes* in the aspect of form building (see Scheme No. 2).

In Scheme No. 2 six resonance zones are shown. The more these zones are in the opposite sides of registers, the weaker they reflect the width of resonance field. In the lowest layer of scheme the progression of resonance field is shown: the brightest background indicates the frame of conceptual sounding field, whereas the darkest background – the real field completion in the process of musical form.[3] The notes located in layers of sounding field indicate **focal tones** – the center of sounding density. Waving, pulsating, vibrating sounds stream indicate the basic (albeit fairly relative) parts of energetic conditions behavior in the larger processes of piece.[4]

Part A (see Scheme No. 2, mm. 0–75) is exposed by gradually extending then narrowing sounding field ([*c*-]→[*c–f*]→[*d*]). Along the extending sounding zone the inside modifications of focal tones appear

[3] The logic of consistently ascending, fulfilling intervallic sphere of sounding processes and subsequent articular variation within bounds (area) of that interval confirms the concept of sounding field.

[4] All the form is realized as continuous, integral uninterrupted process, like a stream of cosmic substance. Wherefore, the end of one part is the beginning of next one.



Scheme No. 2. Time-space articulation throug the zones of sounding resonance in Scelsi's String Quartet No. 4

(which forms a quasi-harmonic structures[5]). Around these focal tones, like the centres of gravity (*cis*, *dis* come from centre *c* and modulate to centre *d*) the elements and substance of sounding field rotate.

Part B (mm. 75–110) consists of waveform sounding field *d*→[*c*–*f*]→*e* wherein the centres of density (focal tones) reiterate the similarity of extending and narrowing waveform by modulation *d*→[*cis*–*e*]→*e*. The end of Part B indicates wide glissando (mm. 105–110), that is performed by viola and violoncello *solo* ([*dis*→*f*+], [*d*→*g*+]) and grows out of bounds of sounding field. That movement out of sounding field creates another parallel dimension, which has the range of seventh – intervallic similarity to all the field of piece (*c*–*ais*).

In Part C (mm. 110–158) the sounding field is extended to the maximum of intervallic field from *e* to [*cis*–*g*+]→[*es*–*a* (f. t.[6] es–as)] and is narrowed to [*e*- –*f*], followed by the sub-part with focal tones *es*–*ges*. Forasmuch as beginning of this sub-part is realized by simultaneous entry of voices as well as by inherent third interval from Part D, the preparative compositional function for this one should be approved.

Part D (mm. 158–210) is based on the most immutable texture with stable intervallic and field focal tones *d*–*f* (*d*–*as*).

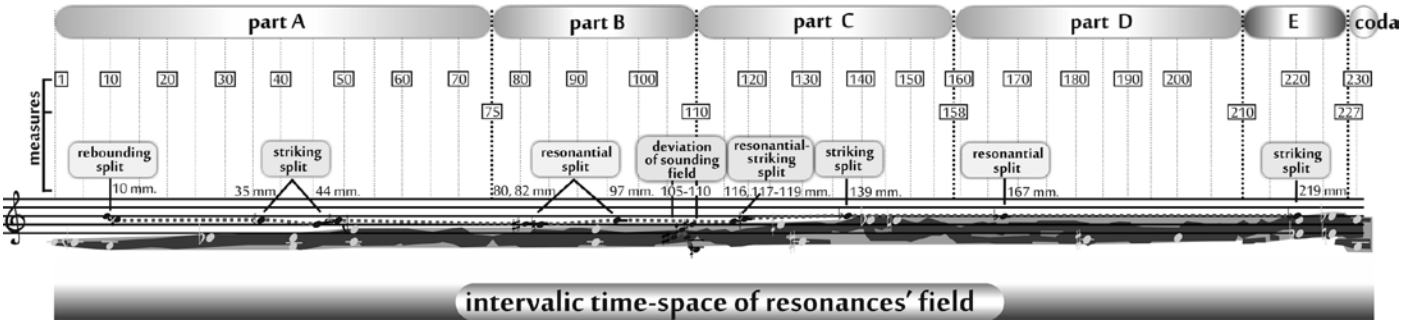
Through the modulation of sounding field [*c*–*g*]→[*e*–*ais*] the width of resonance field of all piece is realized in Part E (mm. 210–227). The articulation of all compositional implementation tendencies is realized through this shortest part of piece: to overcame a space and substance of sounding field, to embrace minor seventh interval in scale of time and tritone–fifth in scale of space. Therefore all time-space potencies of piece are compressed and realized through Part E.

5 Forasmuch as pitches are involved in continuously alternating and unstable sounding characteristics, the verticality cannot be identified definitely as alternating harmonic processes.

6 f. t. – abbreviation for *focal tones*.

The last five bars in the piece can have a twofold interpretations. On one hand, it can be fading out phase of foregoing culmination (of Part E), that seems to be as reflecting and piped down spectrum of previous massive sounding wave. On the other hand, these bars could be interpreted as *coda*, wherein time-space form of the piece is structuralized to the stable pitches, harmony.

The noteheads in gray (Scheme No. 2) indicate short-term sounds, which exist outside of formal sounding field. These sounds cannot be explained as equal functional interpretation. However, compositional meaning of them could be described as ***splitting*** sounding trajectories, splitting sounds.[7]



Scheme No. 3. Splitting sounds in Scelsi's String Quartet No. 4

There are several types of splitting sounds (see Scheme No. 3):

- ***rebounding*** split could be characterized as sound stream trajectory (10 mm., *c*-) rebounding on invisible barrier. That aspect is illustrated by downward *pizzicato* and *glissando* strokes;
- ***striking*** split is realized by *Bartok pizzicato*, accents, synchronic *tutti* entry of all instruments (mm. 35–36; 44–46; 139; 219). It gives an allusion of exceeded amount of energy, disbalance after which sounds of non-resonant field appear;
- ***resonance*** split occurs as quasi overtones splitting in the high (*gis*+; 80 mm.) or low (mm. 82; 97; 167) register. That aspect of refraction could be interpreted as reflection of particular part of resonance field having supplemental function;
- ***resonance-striking*** split (mm. 116; 117–119);
- ***deviation*** into alternative sounding field, "parallel universe" that consists of other time (the conception of all the parallel sounding field in the section of only several bars is employed by the figure of fast *glissando*) and space (intervallic wide of sounding field [*f*+]–[*g*+]) dimensions. Articulation of *deviation* is realized by spacious *glissando* for alto and violoncello (mm. 105–110).

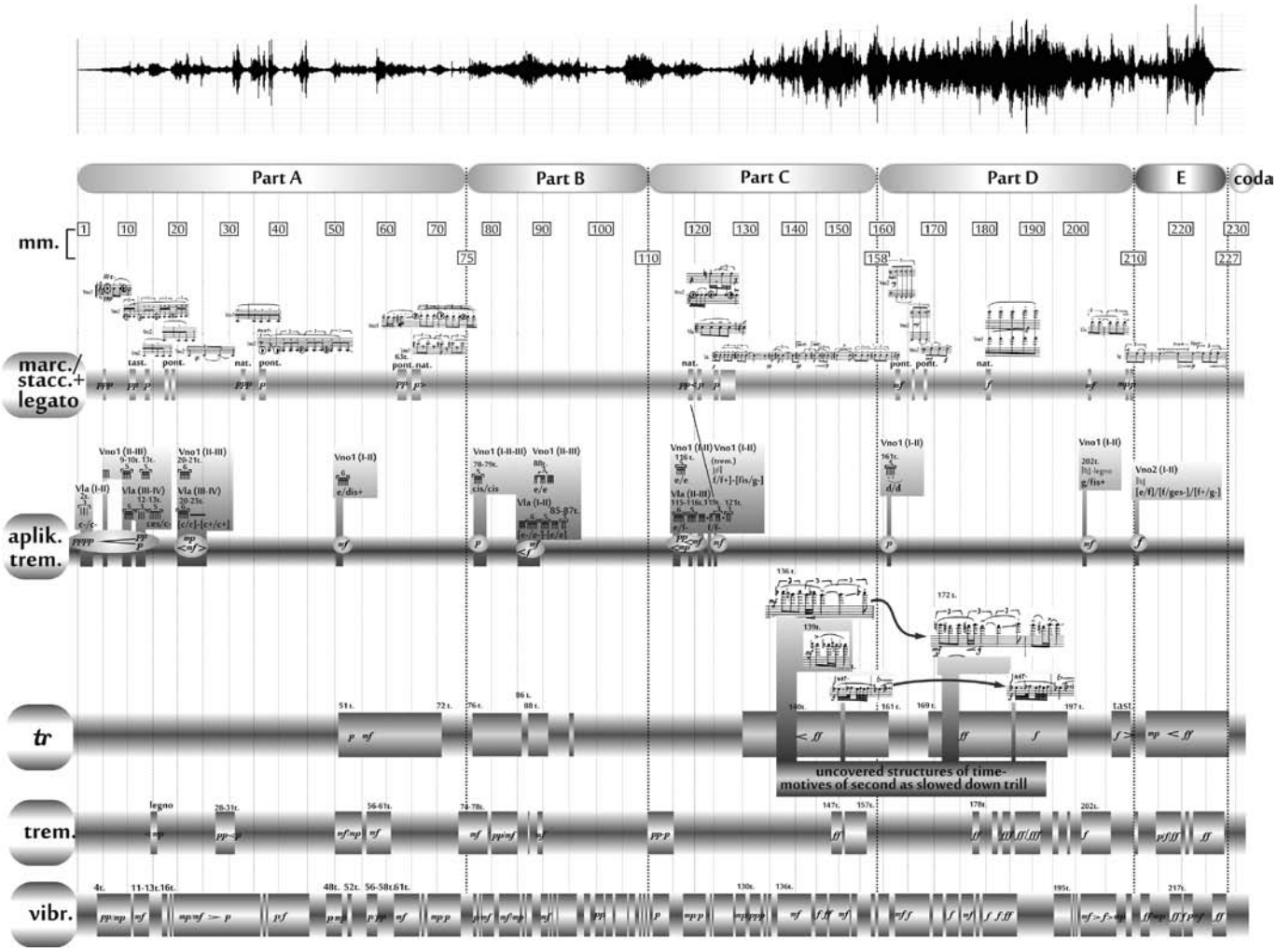
All of these constitute an underground, alternative sporadic time-space concept of sounding form. The alternative time-space is based on two aspects: a) the short-term sounds that are proportionally located throughout the piece (takes a *third* interval *g–h*); b) compressed implementation of alternative time-space in the center ([*f*+]–[*g*+]) of the whole form (see Scheme No. 3).

To describe the basic articulation principles of pitch, the compositional functional logic has to be discovered:

- the macro-structural processes of pitch highs are realized through the contours of gliding up and widening sounding field;
- the aspect of sounding field have to be characterized as sounding resonance field, whereof the stream of energy reflects between all registers of sounding zones;
- micro-structural time-space of pitches is compressed and compositionally could be interpreted as timbral articulation, as aspect of condition;
- pulsating and waving shapes of sounding field (and zones wherein the field is reflected) complement the loudness kinesis aspect. Hereby all dynamic scale of the piece arises from the smallest waves to the growing amplification.

The compressed time-space related articulation of tones allows interpreting this parameter as the aspect of *energy-loudness* **complementation** and *energy-timbre* **alternative**.

[7] T. Murail that compositional aspect, inherent for Scelsi's music, named as *harmonic refractions*. *Harmonic refractions* should be interpreted as splitting unison into new sounds, harmonic or sub-harmonic tones (Murail 2005: 178).



Scheme No. 4. Micro-textural articulation in Scelsi's String Quartet No. 4

Forasmuch as musical realisation processes of Scelsi's String Quartet No. 4 is actualized by potentiality of instruments, their variety of strokes, the articulation is determined by differentiation into particular categories of quality, wherein timbre could be understood as sounding ***condition***. The **timbre**-related qualitative gradation elements have to be classified into two main aspects according to their compositional purpose: the types of ***timbre-color*** and ***micro-textural*** articulation types.

Micro-textural type of timbre articulation form a micro-structural layers of sounding field. These *micro-textural* articulations could be interpreted as main compositional principle for continuity of sounding processes. In the case of pitch parameter that aspect have to be conceptually understood as extremely compressed time-space dimension (when quantity of pitches becomes sounding quality). There are functionally different types of micro-textural articulation for form-creation strategy (see Scheme No. 4).

In Scheme No. 4 the basic strokes of micro-textural articulation are illustrated. Each of them uncovers a peculiar form distributing strategy and relation to other strokes. For instance, the variable ricochet-type stroke *staccato/staccato–legato* (the first one in the scheme) slows down the rhythmical processes; through the various frequencies of repeating *attacca* (one tone *tremolo* between different strings) the similarity of *tremolo* could be realized (the second one in the scheme) – wherefore localization of these two types of articulation is exposed as heterophonic relations throughout the form building strategy.

Fingering *tremolo* (microtones' coloration of one tone between different strings) uncovers the slowing down processes as inertial oscillation variants in time. Therefore, the first two articulation types seen in Scheme No. 4 are articulated in quieter dynamical scale – these oscillations could be understood as passive energetic stream in the most resistance medium and are in the opposite function to those active articulations as *trills* (*tr.*), *tremolo* (*trem.*), *vibrato* (*vibr.*). However since the second half of the piece's form (from 125 mm.) rhythmic

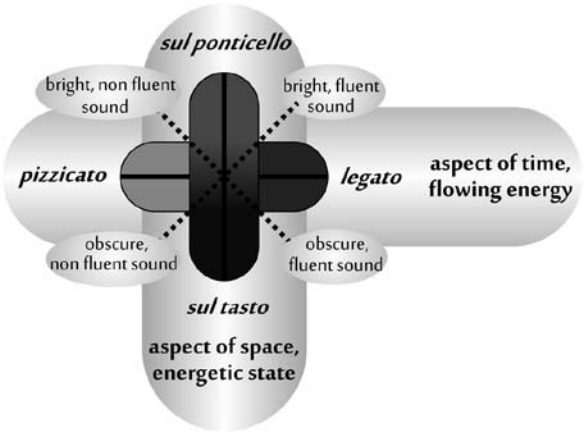
oscillation figures are compositionally transformed to *trem*. strokes. In this way these figures are brought to the articulations of *tr*. and *trem*. and are subordinated in order to realise the processes of culmination.

Tr. articulation stroke is used to realize the active (*tr+f*) and passive (as kind of granulated and amplified *vibrato*) processes. Because of these two aspects the *tr.* articulation have to be interpreted as having inconstant function during the sounding transmutations of the piece's form. Furthermore, *tr.* slowed to the intonation of seconds uncovers structural relations of time-space that compositionally links parts C and D.

All the culminated dynamic sounding processes are realized by invoking *Trem.* This micro-textural element has an inverse position to the *marcato/staccato-legato* types of strokes in the time scale: e.g. slowed down *trem*. can be understood as repeated tone. Otherwise fast *attacca* repeating becomes *tremolo*.

Vibrato stroke (as well as *ordinario*) connects to all the sounding vibration processes, continually weave and rearticulate the microtextural/timbral formation.

Timbre-color type could be defined as a kind of color articulation. Various bowing and *pizzicato* techniques provide opportunities to articulate sound in different characteristics of brightness as well as sounding fluency and timbral intensity.



Scheme No. 5. Timbre-color time-space articulation principles in Scelsi's String Quartet No. 4

In the Scheme No. 5 the system of different color producing is illustrated: 1) the aspect of space – timbral brightness as condition of energy, and 2) time – as energetic fluency. The mutations of spectral space have a possibilities to be done through the gradation of *sul tasto* ↔ *sul ponticello* scale (the aspect of verticality) that is understood as aspect of brightness, as coloration of inside space of sound. The articulation possibilities of musical time are implemented by gradation of *pizz.* ↔ *legato* strokes – herein the dynamic of *attacca's* and durations are expressed. Those articulation types correlate with *microtextural* expression principles of time (e.g., *ritardando* or *accelerando*), especial role these ones take for the elements accentuation of dynamical processes, the aspects of loudness time-space. By the elements of *pizzicato*, albeit they are assigned to the aspect of colorization, the *sudden loudness kinesis* is expressed.

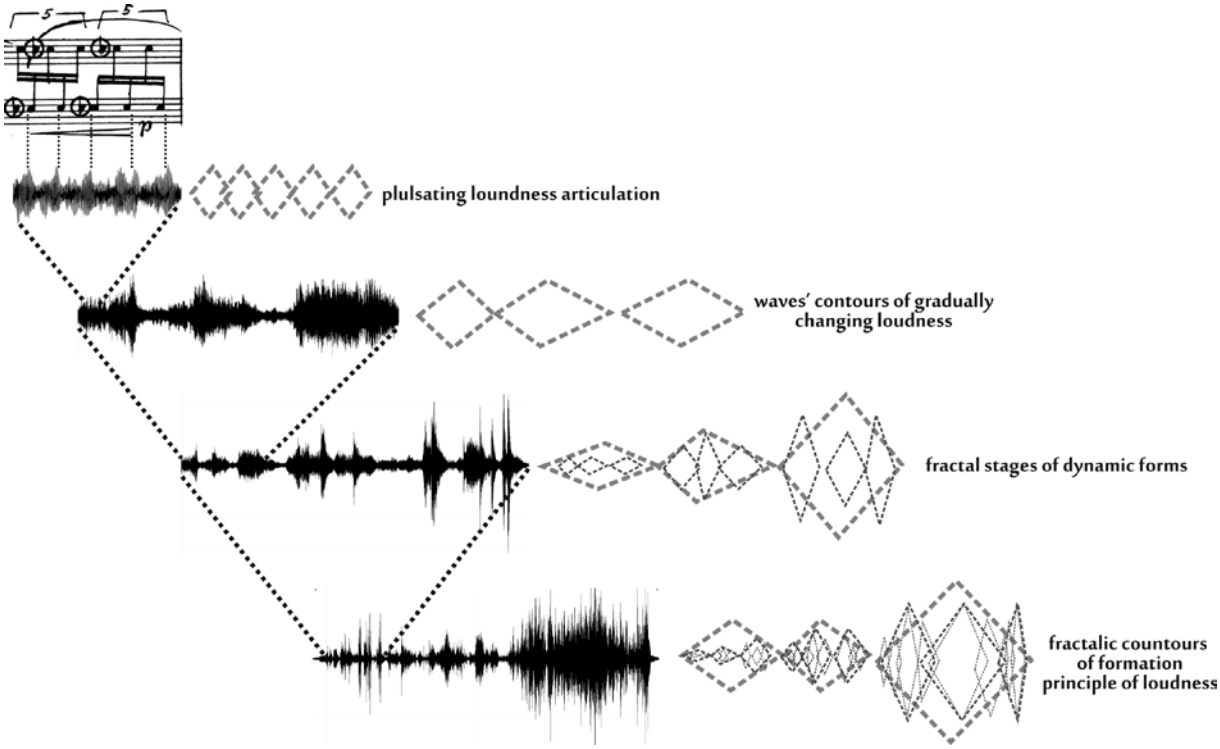
All the multifaceted articulation aspects form a sounding field, that can be interpreted as extended, condensed unison, synthesised by multi-articulation elements in verticality (space), and fluctuations of these – in horizontality (time). Hereby that fluctuating aspect of energetic *condition* could be described by term of ***super-timbre***.

The fundamental functions of timbre articulation have to be defined as complementary properties of *condition* – ***super-timbre*** and **dynamical** processes of piece:

- ***super-timbre*** as the sum of time-space characterizing environment, condition of energetic flow, where fluidity of elements in time is reflected;
- timbral articulation occurs as peculiarity, species (type) of energy, existing in correlation between space – brightness and time – fluidity;
- by the aspect of functionality timbre have to be discerned to the categories of *micro-textural* and *color* articulation. Micro-textural type is implemented as vibration, dynamic aspect of time, while aspect of color reflects coloristic, brightness quality of spatial dimension;
- function of timbre is integrated into processes of energetic expression and complements a time-space parameter of loudness.

It is considered that the sounds presented in the compositional conception of Scelsi's String Quartet No. 4 are interpreted as a mediator of an energetic stream. The main feature of expression of this *energy* reinforcement is the dynamic processes of **loudness**. The compositional principles of loudness and functional meaning are interpreted as the aspects of expressing the time-space of the sounding **energetic** level.

It would be mentioned, that three types of dynamic articulation can be found in Scelsi's String Quartet: **pulsating** (micro-articular bowing technique), **gradual** (it means dynamic transition from fade-in to fade-out) and **sudden** (***sf***).[8] Articulation of *pulsating loudness kinesis* is realized as aspect of energetic fluency and signifies the slowed down tempo using micro-textural strokes. Therefore that property is integrated into dimension of sounding condition. However the micro-structural level of pulsating loudness kinesis can be considered as archetypical unit (as well as smallest perceivable element) through the fractal compositional solution and becomes rearticulated by the *gradual loudness kinesis* in the higher – macro-structural level of form. Consequently, basic forming principles of dynamic waves could be perceived as the shapes of fractal expression:



Example No. 3. Fractal loudness articulation principles in Scelsi's String Quartet No. 4

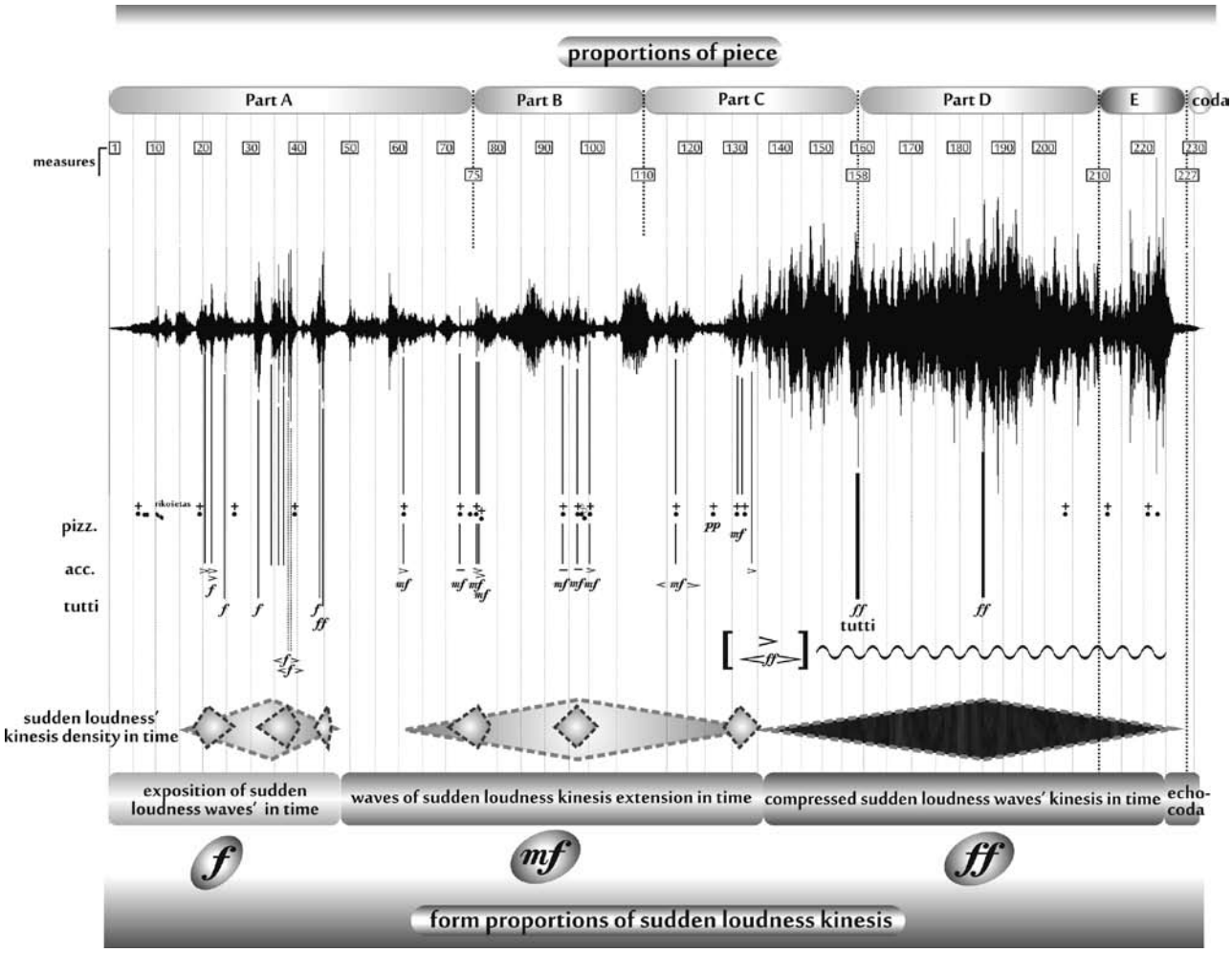
Example No. 3 shows three-part waves kinesis that are permeating all levels of form creating processes. In the aspect of space dimension these waveforms are related to spatial perspective – give us perceptual illusion of approaching and receding sounding processes.[9]

Sudden dynamical leaps, which are shown in the shapes of waves in Example No. 3 indicate an aspect of *sudden loudness kinesis*. However, accents of sudden kinesis do not break the compositional principles of loudness. Contrary – they reinforce the main forming tendencies of loudness.

There are several hierarchic levels for the articulation of dynamic accents: a) *pizzicato*, b) accent, c) mixed accent, d) *tutti* entry. Density of these accents creates a parallel loudness form, which is in heterophonic relation to the *gradual loudness kinesis*:

[8] These loudness aspects of articulation are postulated and described by the author of this paper in dissertation "The Compositional Principles of Articulation of the Musical Timespace (the aspects of spatialization of sound parameters in music in the second half of the 20th century and at the beginning of the 21st century)" (Viļums 2011: 103–114).

[9] Human perceptual abilities to connect loudness to spatial perspective are described by the author of this paper in dissertation "The Compositional Principles of Articulation of the Musical Timespace (the aspects of spatialization of sound parameters in music in the second half of the 20th century and at the beginning of the 21st century)" (Viļums 2011: 103–107).



Example No. 4. Loudness kinesis in Scelsi's String Quartet No. 4

In Example No. 4 three piece's parts of *dynamic strokes* are shown: a) exposition of the three density's centers in the time scale; b) part of three rarified density's *centers of dynamic* strokes; c) part of condensed dynamical kinesis and *coda* – echo. The logic of form confirms three parts' determination principle of loudness kinesis in the piece, which is shown as graduated through the levels: *f–mf–ff*. In the third part the waves of *gradual* and *sudden kinesis* are condensed, pressured. Because of pressured musical time, the dynamic expression could be interpreted as relative to articulation of *pulsating loudness kinesis*. Nevertheless, irregularity of kinesis as well as vacillation between different waves of *microtextural* and loudness kinesis impart the extremely expressed time-space dynamic.

Dynamic strokes split's type of resonance field coincide with sounding accents of piece. Consequently, these articulation aspects complement each other. Outstanding feature of the composition should be characterized by the different parameter aspects of form structuration – the form of loudness (consisting of three parts) do not match fife sections of sounding field (parameter of pitch).

Compositional principles and functional significance of loudness have to be interpreted as the **energetic level** aspects of time-space kinesis:

- *pulsating loudness kinesis* evolves through the condensed time-space structures. Therefore that articulation type supplements the sounding condition aspect of *micro-textural* specific, *super-timbre*;
- *gradual loudness kinesis* could be interpreted as approaching and receding sounding waves. Proportions and compositional logic of that type can be seen in principles of fractal time-space dimensions (the aspect of verticality and horizontality of sounding processes) which are realized throughout the all form of piece;
- *sudden loudness kinesis* breaks a sounding substance by *stroking* dynamical split. The density of accents location in time scale employs a parallel dynamic form that have a *heterophonic* relation to *gradual* kinesis of loudness. Compositional principle of *striking* dynamic interacts with split of sounding resonance field

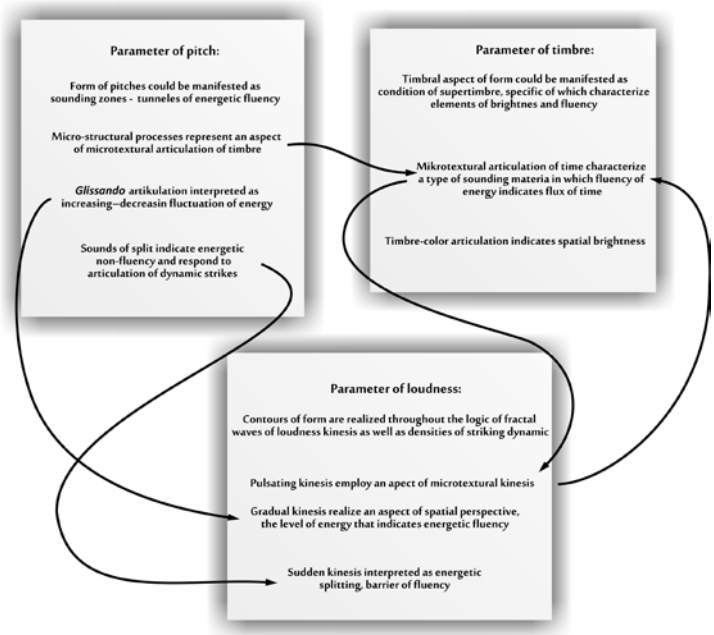
and could be interpreted as obstruction of energetic fluency. As a consequence of those obstructions, rebounding energy, dynamical accents appear.

The third part of the piece consists of fusion of all dynamical types and has a synthesized, strong energy condition, wherein huge amount of energy, articular elements and obstructions correlate with each other.

Compositional principles and functional meaning of loudness could be defined in the terms of energetic level of time-space kinesis.

Relations of sound parameters and sounding expression forms Scelsi's String Quartet No. 4

The strategy dealing with articulations of all sound parameters submits the piece's general idea – to interpret music processing as *substance – medium* which is evoked by *energy* and through which the energetic flows rush. Sounding is an expression of this *energy* fluidity. Without *energy* this *substance* would be "invisible", music – unheard. Considering it, the main parameter of actualizing expression form of piece should be expounded through the intensity of musical processes – loudness. In Scheme No. 6 basic functional aspects of sound parameters is illustrated.

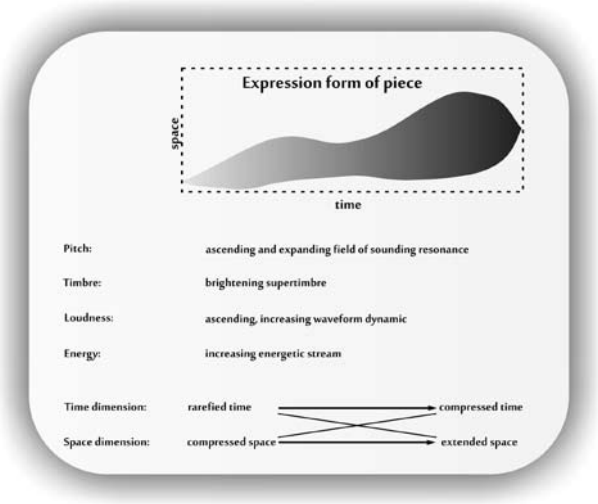


Scheme No. 6. Correlation between sounding parameters in Scelsi's String Quartet No. 4

In Scheme No. 6 correlation between sounding parameters are illustrated. For instance, microstructural processes of pitch are integrated into timbral articulation, meanwhile microtextural articulation correlate with aspect of *pulsating* timbre. Therefore, micro-textural articulation integrates articulation aspects of all sound parameters in itself and is distinguished by **oscillation** of energy frictions. In essence, any connection of a sound parameter with the *energy*-related strategy of sounding formation is inextricably entwined with the context of *loudness*-related parameter. Therefore, we can name this piece as a ***hetero-functional*** composition of sound parameters among which ***loudness*** is the dominant factor (there are *heterofunctional*, *polifunctional* and *monofunctional* aspects of compositional solutions, which are found and developed by the author of the paper[10] (Viļums 2011: 129–131)).

[10] Depending on the strategy of articulation of sounding, the relationship of sound parameters can be characterized as a *monofunctional*, *heterofunctional* or *polyfunctional* compositional structure. We describe the concept of *monofunctionality* as a purified conception of composition in which other aspects of sound presentation are levelled in the name of dominance of one of parameters. A *heterofunctional* composition is interpreted as a versatile but homogeneous/monocentric conception of sounding. For making a musical idea meaningful the sound parameters should submit to the essential hierarchical purpose of articulation (when the sound parameters are not levelled but assume an important meaning-related function and interconnectedness – they are integrated into the main conception realization). The features of such conception can be described by dominance (sound pitch, timbre and intensity) of one of the sound parameters in that case if other aspects of parameters are compositionally active and highlight the specifics of realizing the main parameter. Music *polyfunctionality* is described as differentiation of sound parameters when the structure of a work is composed by referring to generativity of various parameters. Specific or differently hierarchically organized functions are ascribed to sound parameters (Viļums 2011: 129–131).

The multi-typed elements of this piece's sounding are hardly reconstructed into certain *expression forms*. However, all sound parameters complement each other and their articulation displays a pronounced direction of a sounding substance (see Scheme No. 7):



Scheme No. 7. Expression form of Scelsi's String Quartet No. 4

An increasing *energy* flow evokes a gradually increasing expression/dynamics of all sounding aspects. The dimensions of *time* and *space* unfold dual logic of the musical time-space and exhibit an oppositional symmetry of the piece's form. In the quartet, universality of *time* and *space* articulation inherent to Scelsi's music, reveals the musical time-space that is presented as an infinite range: it can be interpreted as if immensely compressed or extended.

In Scelsi's String Quartet No. 4 composition can observe the aspects of a constant interaction of time and space that create the piece's *energetic* form (from micro to macro dynamical waves). However, the aspect of intensity/timbre creates an internal time-space of music which, in this case, is a manifestation of energy *condition*; a conceptual peculiarity of this composition is explained by totality of time levels of the processes of sounding (in the aspect of perceptually intangible micro↔macro dimensions) – the meta-dimension of a *cosmic energy*. Still, the *expression form* of Scelsi's piece is identified as a dynamic *form* of *expression* of variable *conditions* of an increasing energy.

The principles pertaining to articulation of the expression forms of sounding processes we name as a "*key*" to decode music; it allows our *intuition* to recognize an essential ***code*** that forms music. The *code* of *recognition* enables one to investigate musical processes as the higher level, existing beyond time combinations of the principle of idea and perception. The mental processes of perception integrate a cognitive life experience and therefore the perception of music, its more profound elucidation, is inextricably entwined with subjective tendencies of decoding. As a musical work is not a score, not sound processing, not a self-expressive abstraction But it is a personal sounding realm of a creator and a perceiver that is recreated every time anew.

References

Coren, Stanley. Sensation and Perception. In: *Handbook of Psychology: Volume 1, History of Psychology*, ed. Freedheim D. K., Weiner I. B. Copyright by John Wiley & Sons, Inc., Hoboken, New Jersey, 2003.

Fuchs, Alfred H., Katherine S. Milar. Psychology as a Science. In: *Handbook of Psychology*: *History of Psychology*, ed. Freedheim D. K. New York: Wiley, 2003, Vol. 1, p. 1–26.

Murail, Tristan. Scelsi, De-composer. In: *Contemporary Music Review*, 2005, No. 2/3, April/June, Vol. 24, p. 173–180.

Schirillo, James A. Gestalt Approach. In: *Encyclopedia of Perception*, ed. B. Goldstein. Copyright by SAGE Publications, 2010.

Siqueira, André R. *O percurso composicional de Giacinto Scelsi: improvisação, orientalismo e escritura*. Dissertação. Belo Horizonte, 2006.

Viļums, Mārtiņš (2011). *Kompoziciniai muzikinio erdvėlaikio artikuliacijos principai (garso parametrų suerdvinimo aspektai XX a. II pusės–XXI a. pradžios muzikoje)* [The compositional principles of articulation of the musical timespace (the aspects of spatialization of sound parameters in music in the second half of the 20th century and at the beginning of the 21st century)]. Dissertation: humanitariniai mokslai, menotyra (03 H), muzikologija (H 320). Vilnius: Lietuvos muzikos ir teatro akademija.

Santrauka

Energija ir būsena kaip G. Scelsi Styginių kvarteto Nr. 4 muzikinio erdvėlaikio artikuliacijos forma

Šio straipsnio tikslas – apibrėžti G. Scelsi Styginių kvarteto Nr. 4 muzikinio erdvėlaikio artikuliacijos principus ir mentalinės muzikinės išraiškos atpažinimo formas. Straipsnio autoriaus suformuoti muzikinio erdvėlaikio analizės principai leidžia nagrinėti kompoziciją kaip daugiaplanę, muzikinių parametrų sąveikoje besiformuojančią išraiškos formą.

G. Scelsi kūrinio formodaros procesas čia interpretuojamas **skambesio lauko** užpildymo ir jo **rezonanso** principu. Skambesio lauko užpildymas pasireiškia garsų eksploatavimu tam tikroje intervalinėje srityje – zonoje (nuo primos iki oktavos). Rezonansas pasižymi dviem skambesio lauko artikuliacijos aspektais: *horizontaliuoju* (tembro) ir *vertikaliuoju* (laiko) *rezonavimu*. *Horizontalusis rezonansas* identifikuojamas kaip skambesio lauko tembrinis, mikrointonacinis, valdomas štrichais ar instrumentinis varijavimas – reartikuliavimas laike, o *vertikalusis rezonansas* – skambesio zonos eksponavimas kituose registruose.

Visų garso parametrų artikuliacijų strategija paklūsta bendrai kūrinio kompozicinei idėjai – interpretuoti muzikos procesus kaip *materiją-terpę*, kuri pažadinama *energijos* ir per kurią plūsta energetiniai srautai. Skambesys yra šios *energijos* takumo išraiška. Be *energijos* ši *materija* būtų „nematoma“, o muzika – negirdima. Iš esmės bet kuri garso parametro sąsaja su *energetine* skambesio formodaros strategija yra neatsiejama nuo *garsumo* parametro konteksto. Todėl šį kūrinį galima įvardyti kaip *heterofunkcinę* garsų parametrų kompoziciją, kurios parametrų dominantė yra *garsumas*.

Kvarteto skambesio elementų daugiarūšiai įvykiai yra sunkiai rekonstruojami į tam tikras percepcines *išraiškos formas*. Tačiau visi garsų parametrai papildo vienas kitą, o jų artikuliacija parodo ryškų skambančios materijos artikuliacijos kryptingumą. Stiprėjantis *energijos* srautas suaktyvina visus skambesio aspektus. *Laiko* ir *erdvės* dimensijos atskleidžia dualinę muzikinio erdvėlaikio logiką ir parodo kūrinio formos opozicinę simetriją. Kvartete atsiveria G. Scelsi muzikai būdingas *laiko* ir *erdvės* artikuliacijos universalumas, muzikinis erdvėlaikis pateikiamas percepciškai neaprėpiamu diapazonu: jis gali būti interpretuojamas kaip tarsi be galo suspaustas arba išplėstas.

G. Scelsi Styginių kvarteto Nr. 4 kompozicijoje nuolat sąveikauja erdvės ir laiko aspektai, kurie formuoja *energetinę* (mikro- / makrodinaminiais pulsais / bangomis) kūrinio formą. Garsumo / tembro aspektas formuoja vidinį muzikos erdvėlaikį, kuris šiuo atveju yra energijos *būsenos* apraiška; šios kompozicijos konceptualusis ypatumas, paaiškinamas skambesio procesų laiko lygmenų totalumu (percepciškai neaprėpiamu mikro- / makrodimensijų spektru), yra „kosminės“ energijos metadimensija.