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EERO TARASTI

KRZYSZTOF PENDERECKI:
AN EXISTENTIAL SEMIOTIC STUDY
OF HIS SONORISTIC WORKS AND
CELLO AND ORCHESTRA CONCERTO NO. 2

I was invited by the Cracow Music Academy to the symposium in early December 2023 to celebrate Krzysztof Penderecki's 90th birth anniversary. I accepted the invitation immediately—having met the composer and his wife Elżbieta several times both in Cracow and Warsaw. Yet, at the same time I was already thinking of applying in my speech some of the most recent developments of my semiotic theories, and particularly of the so-called existential semiotics. This method I have tried to elaborate in recent years in several international publications, like "The Existential and Transcendental Analysis of Music", "From Ursatz to Urzemic: Avenues for Theories and Analysis of Music Signification", "*...ein leiser Ton gezogen…* Fantazja C-dur op. 17 Roberta Schumanna w świetle semiotyki egzystencjalnej", "Existential Semiotics and its Application to Music: The Zemic Theory and its Birth from the Spirit of Music", "What is 'Modern'? How to Renew Musical Heritages or the Innovators and Reformers of Music History", "Topics and Music Performance: Some Reflections and Proposal for a Theory", "Existentiality and semiotics—are they compatible?"; and also: *Methodological Foundations of Eero Tarasti's Musical Semiotics* (Vassilev), and *Music as Sign* (Jabłoński). Then, of course, the theory was developed more fundamentally in my *Semiotics of Classical Music. How Mozart, Brahms and Wagner Talk to Us*.

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Yet, all this starting as early as from *Existential Semiotics* in 2000, and continuing until *Sein und Schein* in 2012.

With my method, which I now called "zemic analysis", I had come to the point in which I thought I was finally able to solve a major problem of my approach, namely one of its **notation**. Namely, as early as in the previous phase of my research, dominated by the Parisian school, I had encountered the challenge of a new type of notation which should be as clear as Schenker method exploiting only traditional music notes for its purpose. Now the so-called "modal" grammar analysis of, say, Chopin *Ballade No. 1 in G minor*, op. 23, utilized symbols borrowed from the formal logics (Tarasti 1994, 154–80). And so a musician not trained in such a semiotic or "angloanalytical" approach was not able to understand them.

However, faced with this totally new kind of empirical material, like Penderecki's early works, I was inspired by his innovative graphic notations in his sonoristic work. In fact, they were rather close to the new symbols and graphs I had used in some of the abovementioned, novel and theoretical essays on musical semiotics. But now, for the first time, existential semiotics would be applied to a radical avantgarde music. Yet, in order to use all this for a composer like him, it needed first some contextualisation—which I did in my speech at the Cracow symposium and in my essay forthcoming in its proceedings, as well as in my article entitled "Krzysztof Penderecki 90— Belief, Episteme and Icon—An Existential Semiotic Interpretation". Now, in the present study, I focus just on this new methodology.

Nevertheless, I want to point out some basic qualities and character of our composer. In Cracow, upon the initiative of Mieczysław Tomaszewski, there was a conference *Music as a Message of Truth and Beauty* in 2014. I contributed with my paper "The Existential and Transcendental Analysis of Music" (published in the proceedings as Tarasti 2014, 25–54). However, at the end of the anthology there was also a large section on Penderecki, which I did not know then. Yet, there one finds Tomaszewski's competent essay, "Penderecki, The Structure of a Creative Personality", with its first part entitled "Rebellion and Liberation". The essential point there is that Penderecki's development has to be seen as a series of rebellions and liberations. *Threnody to the Victims of Hiroshima* was a fight against the Western avant-garde which had forgotten the emotions. The second one was, again, against avantgarde, because it had ignored the area of the sacred. This dispute was apparent in *St. Luke Passion*. Ten years later, Penderecki rebelled against the unwritten yet established ban on stylistic flashback in all creativity aspiring to aesthetical correctness.

At the end, he rebelled against himself expressing an inner dissent against repeating himself in subsequent works and against excessive monumentality. Liberation from excess can be a description of a phase in which *claritas* became the dominating principle, like in Thomas Aquinas, we could say. The spirit of independence is a factor which characterizes him in the best way. We could say that he was *un esprit contestataire* (see more Sowińska-Fruhtrunk 2022; Malecka 2023).

ON THE METHODOLOGY

In fact, the guidelines of this analysis are easily reported. It starts from Hegelian logic and its categories of being: *an-sich-sein* and *für-sich-sein*. The former means being as such without any determination and the latter means being for someone else, as observed and limited by someone else, therefore as something social. When we add there categories of Me and Society (*Moi* and *Soi* in French), we get a field of four terms: *an-mir-sein, für-mich-sein, für-sich-sein* and *an-sich-sein*; or, being-in-myself, being-for-myself, being-for-oneself and being-in-oneself. These terms can be put into the so-called semiotic square of the semiotic school of Paris (Greimas), which stems from linguistics—i.e., *s1 vs s2* and *non-s2 vs non-s1*. When one makes there a semantic investment, remembering that what is involved here is the human mind after all, we obtain the following cases: 1) body, 2) person or actor, 3) social practice, and 4) values and norms. In other words, we move from the axis of the *sensible* in Lévi-Strauss' terms to the new dimension of *intelligible* or to Adorno's categories of Me vs Society. I call this model zemic because it is a) emic in portraying the world from inside, it is phenomenologically experienced, and b) there occurs Z's movement in two directions: either the body gradually sublimates (Freud!) into values, or values gradually concretize into a body (in English I use the terms "sublimation" and "embodiment", respectively). In this manner I also resolve the problem of the Greimassian/Cartesian tough, achronic and rigorous system, which changes into temporal and dynamic process, better corresponding to what happens in the *Dasein* in reality.

The model, therefore, depicts the elements that make up the human mind. In order to define it we always need those four aspects:

MOI

Moi1   **Moi2**

Soi2   **Soi1**

SOI

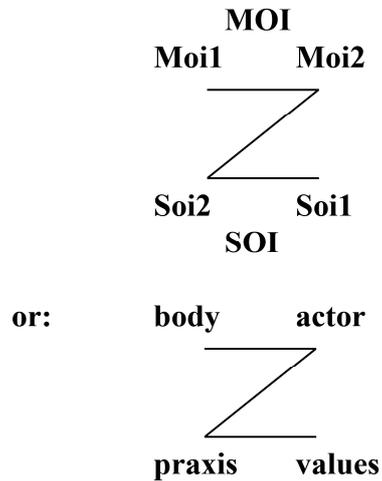**or:**   **body**   **actor**

praxis   **values**

Figure 1. The SOI/MOI model

When we now examine man-created objects like text or art (e.g., music), we move from the zemic model to **sig-zemic** or sign-zemic, which is a mere sign of the original zemic situation. What is involved here is a complex representation of zemic into sig-zemic. In music, for instance, those modes of being M1 M2 S2 S1 correspond to the cases:
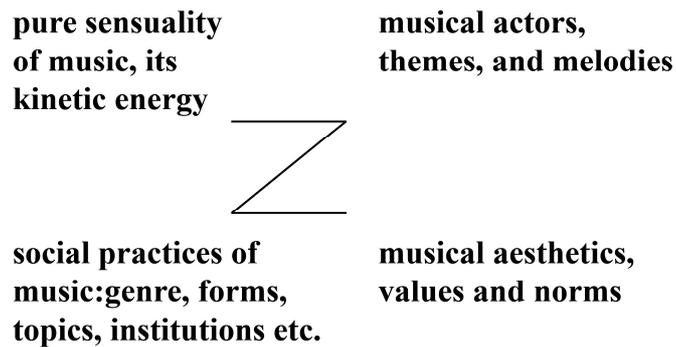
pure sensuality   **musical actors,**
of music, its   **themes, and melodies**
kinetic energy

social practices of   **musical aesthetics,**
music:genre, forms,   **values and norms**
topics, institutions etc.

Figure 2. The zemic model

Furthermore, one may remember that behind that square loom also Greimas's modalities: will *M1*, can *M2,* know *S2* and must *S1*.

Moreover, the modality of belief is also included and it leads to *Soi1*, epistemes. Finally, this immanent process of signs implies the idea of transcendence. This means that empirical transcendence is the same as *Soi1*, perhaps the invisible values in a society, from which one ascends to the level of reflection or *supra-zemic*, corresponding to Hegel's concept of *Wesen* 'essence'... and from there to radical transcendence, which we can deal with only using metaphors.

Accordingly, there are two movements: *trans-a-scendence* or elevation to transcendence, or as Sartre argues, we create transcendence in our minds when our concrete living world is so chaotic and incomplete. Yet, the other movement is *trans-de-scendence*, and starting from the epistemological choice that the only real thing is that radical transcendence for which all the worldly issues constitute only its metaphor: *alles Vergängliche ist nur ein Gleichnis* (Goethe, *Faust II*).

The concept of transcendence is, however, quite relevant just in Penderecki, as he stated in one of his interviews:

> My art which had grown from profoundly Christian roots, aims at rebuilding the metaphysical space of the human being, shattered by the cataclysms of the 20th century. The restoring of the sacred dimension of reality is the only method of saving man. (Chłopicka 2003, 13)

Furthermore, Małgorzata Pawłowska quotes two similar statements by Penderecki: "...Art should be a source of difficult hope" and "...Entering the path of avant-garde music I had a feeling that one cannot break away from spiritual roots... I see even more clearly that only *homo religiosus* can hope for salvation" (2023, 209–10).

Now, we are ready to return to more concrete issues or certain compositions by Penderecki. I shall analyze them in the broader context, which is that of the modality of belief, the epistemes stemming from it, the aesthetic of resistance, and the presence of transcendence in his output, not only in his religious works but also in secular ones.

THE ZEMIC MODEL

I start from these hypotheses:

1. **Every musical expression or statement (*énoncé* 'enunciate') is a zemic (or, perphaps, a "sig-zemic")**—or rather, its four modes are always present there in various degrees. Only their weight is alternating in *M1M2S2S1*, and this forms the inner dialectics of the work, upon which its "structural semantics" is based, to quote one more term from Greimas.

2. **Zemic** is like a living organism—it functions, breathes, grows, shrinks, dissipates, it has life (here biosemiotics can still come in handy).

3. Every **zemic** is tuned in some way—there appears Heidegger's ***Befindlichkeit***, or a *Stimmung*. The attunement can be aesthetic, political, religious, moral, serious, functional, commercial, entertaining, playful, and the like. It constitutes the determining isotopy in the background of all. One zemic can contain several attunements conflicting with each other, when a struggle goes on inside the zemic. For instance, *das Man* zemic is the one in which S2, the social practice, has taken the dominance; the aesthetic zemic, again, emphasizes S1, etc.

4. The interrelations among zemics and the modes fulfilling their contents are governed by so-called **log-zemics.** They decide how the zemics communicate with each other, strive for each other, and how they aspire for heaviness of embodiment (Simone Weil's gravitation) or lightness, i.e. sub-limity, or transcendence, either ascending or descending (Weil's grace). Movement can be against something, towards or away from something (cf. Charles Morris' terms). Movement can be non-existent like in Heidegger's *Gelassenheit* leading to a particular zero-time or *Kugelzeit* (Berndt Alois Zimmermann).

Variations of log-zemic can be rendered by a special notation (figure 3), and it may be funny or even curious to see that it evokes the one made by Penderecki himself (presented in figure 6):
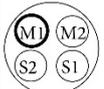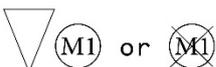
ZEMIC, SIG-ZEMIC AND LOG-ZEMIC SIGNS

1	Zemic Affirmed Negated (M1) (M2) / (S2) (S1) △(M1) ▽(M1) or ⊘(M1)
2	◁ ▷ Growing Shrinking
3	⊢⊣ ⇉ ⟩ Plain, no movement Dissipating Densifying
4	⤆ ⤇ Embodiment Sublimation
5	⇑ ⇓ Trans-a-scending Trans-de-scending
6	⇒ ⇐ Towards Against
7	⟩⟨ ⟨⟩ Dialogue Fragmentation
8	$Tone_\phi$ $Tone_{pn}$, $Tone_g$, $Tone_n$ or gr

Figure 3. Diagram of log-zemics

ANALYSES

I have chosen four works for analysis: *Threnody, Anaklasis, Fluorescences*, and *Cello Concerto No. 2*. My repertoire is thus still unfinished and my aim is to continue it to cover the most important genres and styles Penderecki adopted. Yet, this may be sufficient to illustrate how the *zemic* model functions in avant-garde music.

Threnody is one of the most analyzed pieces of Penderecki, since it represents that phenomenal breakthrough of the Polish school in the 1950s, manifesting also many of the aforementioned themes and horizons of understanding.

Perhaps the best analyses and a kind of basic descriptions are found in Wolfram Schwinger's work *Krzysztof Penderecki, his life and work* (1989). What is amazing is that many standard studies on the 20th-century music do not devote enough attention to Penderecki. Paul Griffith's *Modern Music, the*

Avantgarde since 1945 (1981) mentions him at times but he remains overshadowed by Ligeti and Stockhausen. The only work of Penderecki' under analysis there is *Threnody*, being called "atmospheric texture music". He mentions only Penderecki's skills in dealing with clusters and glissandi to produce highly expressive effects. That is all.

In the book by John Baur *Music Theory through Literature*, vol. 2, Penderecki is treated but only by *Dies irae*. Its rhythmic notation is a combination of traditional and non-metric proportional notation. Here we are dealing with a kind of moving cluster. The opening motif is a gesture typical of Penderecki, that is, a tone which unfolds as a glissando. A gesture, on the zemic model, can be considered a kind of pre-actor, still *Moi1* but not yet *Moi2*. Baur lists the style elements of Penderecki's sonoristic period as follows:

> melody: a true melody *Moi2* is rare; clusters are dealt like separate lines by moving them up and down
>
> harmony: is based upon clusters, of whole tones and semi-tones and quarter notes
>
> rhythm: a thorough dissolution of pulse, often static
>
> texture: in general extremely dense; all registers used.
>
> key terms: clusters, proportional notations, wave-form (Baur 1985, 317).

In Stefan Kostka's work *Materials and Techniques of Twentieth Century Music*, Penderecki appears only as an example of strange playing manners: *Threnody* is famous for its string technics and treatment of percussion, which is illustrated by bars 75–81 (224).

In the opening of her *The Sonoristic Structuralism of Krzysztof Penderecki*, Danuta Mirka (1997) states the elements of Penderecki's sonoristic style, which concern our auditory categories of pitch, dynamics and time. She believes that they are articulated as binary oppositions, for example, pitch is about spatial continuity vs discontinuity, spatial mobility vs immobility, high vs low register, middle register vs extreme registers:

> dynamics: strong or soft
>
> time: temporal continuity vs discontinuity; temporal mobility vs immobility; maximal time spans vs minimal time spans (Mirka 1997, 90–145).

Mirka presents complete diagrams on various possibilities in this framework and uses in addition the notion of *langue* and *parole* of de Saussure to clarify the situation. *Parole* depicts the composer's free choices in the context of grammar. She analyses *Threnody* just in relation to these binary oppositions with extraordinary accurateness. What is involved is the description of the work's syntax, illustrated by three dimensional schemes.
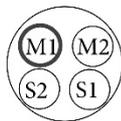
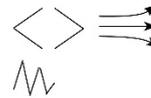In what follows I present my zemic analysis of the *Threnody*.

THRENODY TO THE VICTIMS OF HIROSHIMA
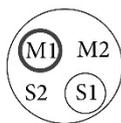
1) quasi-transcendental sound field opening the space, pure sensibility

$15 + 11 + 4 + 6 + 13$ sublimation
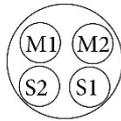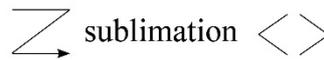
2) striving towards M2 actor, sound deactorialized, new

manner of playing

$15 + 15 + 15 + 15$

3) expansion of M1   almost but

remains a fragment

$4 + 15 + 15 + 25 + 20 + + 15 + 20$

4) pause M1 still more swollen (M1), as the result of the previous section?
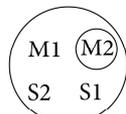
also notation now arrow

5) almost 'iconic' section of the piece i.e. often mentioned:

5 times M1/M2 expanding, but not leading to anything
i.e. immobility / pause, i.e. remains a fragment
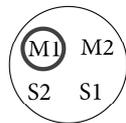
5 times M2:

M2 masked, hidden by M1sounds and simultaneity

6) diminution of M1, shrinking morendo
15 + 10 + 7 + 10 + 5

M1 (M2)
S2   S1

articulated
gestures
superimposed

7) M2 broken actors, almost like a reminiscence of
some full 'hero'
dissolution of motifs over the musical space
15 + 15 + 15 + 15 + 15 + 15 + 10 + 5

(M1) M2
S2   S1

8) return to section 3, music remains the prison

of M1 unarticulated embodiment

dialectics according to Mirka there should be binary
opposition mobile/immobile, no! it is all immobile,
counter-current of signs, static Being but instead heavy
– light, embodiment – sublimation all the piece is in
BEING in the sense of resistance, so it rather starts
with a quasi-transcendental gesture, but it is not seen
as the result of linear teleological movement, towards
transcendence, but transcendence is already there, so it
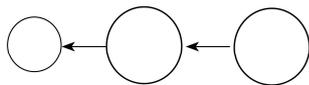is the MEMORY, all is reversed here

Figure 4. Analysis of Penderecki's *Threnody to the Victims of Hiroshima*

In any case, there are two principles we can draw from the above:

1) when there is a striking cluster chord attacca, it always implies move-
ment, i.e. log-zemic of "against", i.e. a sign of resistance;

2) when the movement stops in that way or rather the listener stops to
concentrate and becomes conscious of a certain overall quality of the musical
situation, it always means an aesthetic reflection, i.e. a certain colouring of
the whole zemic under its mode of Soi1.

Figure 5. Krzysztof Penderecki, *Threnody to the Victims of Hiroshima*,
an excerpt of the score

FLUORESCENCES

This work is often mentioned and analyzed in literature on Penderecki. It became well known in the circles of music semiotics thanks to Henri Chiarucci's study "Essai d'analyse structurale d'oeuvres musicales".

His inspiration was, like for Mirka, later in structuralism and especially in its strictly linguistic origin in the phonetic system of language, in the so-called distinctive features and binary oppositions. The object of analysis was two somewhat similar works, *Carré* by Stockhausen and *Fluorescences* by Penderecki. Why these compositions were selected is not explained by the author otherwise but by referring to his musical taste. Both pieces were brought to the state of so-called acousmatic listening, i.e. the works were heard as such without any support from the score, or visible elements of performance. The analysis was prompted by the idea that "dans la musique toutes les parties sont unies par un rapport de solidarité et de dépendance à l'intérieur du système globale". It was thus exercised only on the level of aural perception and followed by psychological and methodological principles.

On the first listening, some auditors prepared visual "maps" of their experiences. On the second listening, auditors were asked to distinguish those passages in which some contrast appeared causing a break, rupture in the course of music. There were both successive and simultaneous contrasts: in *Fluorescences* the listeners distinguished 32 contrasts. A contrast appeared always when there was some change in the sonorous event. During the next round, contrasts could be characterised, and each contrast was depicted by some opposition.

Here one has to notice that the amount of contrasts and oppositions was different. Opposition was present in the metatext and contrast in the primary text. In other words, the auditors tried to make a list of distinctive features as it is done in linguistics. Finally, all contrasts were compared to the repertoire of all oppositions. The results were gathered in a diagram, in which the presence of an opposition in contrast was indicated not only by the absence of someone but their occurrence in a temporally reversed order—repeated/stable vs stable/repeated. The signs + and – did not mean anything in simultaneous contrasts. Finally, one could note that the work itself provided a complete reference of the rules which defined the idea of the work. In other words, a theme or idea had meaning only if it was interacting with the work. It was a theme only if it was perceptible.

In *Fluorescences* there were altogether 23 oppositions and 32 contrasts. The most important were: heavy/light (20), slow/fast (19), disorder/order (17), grain/fine (17), fixed/varied (16) and medium/sharp (16). At the end, Chiarucci stated that, subsequently, one had to study more how one shifts from one contrast to another—in other words in our zemic analysis just using log-zemic modes.

Danuta Mirka, again, argues that the work contains the most impressive selection of performance indications in Penderecki's sonoristic work (Mirka 1997, 241). Only here one needs both brass and wood wind and a massive percussion section. It is divided into six sub-sections.

Again, Mirka shapes the work in relation to basic opposition high/low register, temporal mobility/immobility, continuity/discontinuity, spatial move-ment/non-movement, temporal continuity/discontinuity, spatial conti-nuity/discontinuity, loud/soft dynamics (242). In fact, in Greimassian terms, they refer to the disengagement/engagement of space and time. But what is then the zero point from which we count these shifters? Perhaps there is none. Moreover, Mirka presents an impressive number of detailed analyses. How is it in zemic analysis?

One has to note, still, that *Fluorescences* contains also a large number of alienated playing manners and technics. Their chart presupposes their own interpretation, but altogether the quality of sound stems just from these dif-ferent treatments of musicians.

a) General:

- † = raise by a quartertone
- ‡ = raise by a three-quartertone
- ▲ = top note of the instrument (indefinite pitch)
- ▼ = bottom note of the instrument (indefinite pitch)
- ⌇⌇⌇⌇ = *molto vibrato*
- ⌇⌇ = very slow vibrato including quartertones
- ⩘ = very quick arhythmical tremolo
- ·············· = repeat note as rapidly as possible
- ·–·–·–·– = repeat the notated pattern as fast as possible
- ⋀⋀⋀ = sawing
- »»»»»»» = rubbing

b) *Wind instruments*

- ▮ = blow into reed or mouthpiece
- + = strike the keys
- ⩘ = *frullato* (whirring, very quick tremolo)

c) *Percussion*

- ✎ = with triangle beater
- ⚲ = with drumstick
- ⚲ = with timpani stick (with soft head for vibraphone)
- ⚒ = with wooden hammer
- ⚔ = with wire brushes
- ⚲ = lay stick on skin and hit centrally with another stick
- ⚲ = hit skin and rim together with one stick
- ⚲ = on rim.

d) *Strings*

- s.t. = *sul tasto* (on the fingerboard)
- s.p. = *sul ponticello* (near the bridge)
- c.l. = *col legno* (with the wood of the bow)
- l.batt. = *legno battuto* (struck with wood of bow)
- ord. = *ordinario* (normal bowing)
- ⊓∨ = frequent irregular bowing
- ↑ = on one string between bridge and tailpiece
- ⇑ = on two strings between bridge and tailpiece

Figure 6. Krzysztof Penderecki, *Fluorescences*, introductory chart

1) M1 opening sound field and now moving towards ⟶
sound is sublimated i.e.

but like preparing something which is....
$16 + 14 + 4 + 7 + 5 + 7 + 4 + 5$
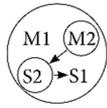
2) An entrance of actor M2 sirene, index of war i.e. the social S2 and
thereafter emotion of fear, horror, so there is a dysphoric semantic
investment
$10 + 9 + 7 + 9$

3) Interlude bringing social element to the bass register, but now M1
leads ⟶ again to an actor, typewriter M2, and its symbol of *écriture,*
writing i.e. social pracice S2 and civilization, S1 looming behind
$4 + 5$

4) actor M2 is 'pulverized' winds imitating it with special disengaged
technics ;what does this mean semantically? Dissolution of culture
(writing?)
$5 + 5 + 3 + 4 + 4 ++ 5$

5) glissandi M1 developed (can M1 be developed without falling to the
trap of M2 subject?) long passage, interlude leading ⟶ to

6) a collective de-actorialized actor in the fugato, percussion like
talking in a group without any longer bein able to distinguish the words
⟶

7) emerges a theme if M2 with one note expanded and alternated in
various M1 sounds and instruments
bar 86

8) one note actor M2 expands into glissandi i.e. it is dissolved like by
its inner force ⟶

9) leading to a huge crescendo i.e. ⟋ embodiment and reappearance
of …

10) actor (sirene) M2 with all its connotations in bar 95; no sublimation
of it, only *morendo*

Figure 7. Analysis of Penderecki's *Fluorescences*

ANAKLASIS

Altogether, this piece is not as fragmentary as *Threnody*, it has a clearly developed use of strange, alienated playing techniques and sonorities, so this is closer to Schonbergian "developing variation". How is this music engaged and how does it challenge the composing canon? Quite explicitly the use of referential elements and typewriter which naively instruct the mind of the listener.[1]
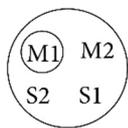
1) M1 field opens but it hasdramatic expression of *Befindlichkeit* likeWagners' Walküreand its opening string ostinato! tutti archi pronounces a cluster chord which sounds tragical
18 + 20 + 25
$\Longrightarrow$ this indeed leads to a more sublimated passage
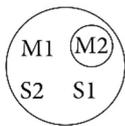
2) in which short fragments of full themes i.e motifs, pieces of a row are heard in all registers dissipated but this is also like a negation of Darmstadt school of serialism, so it is a non-S2 but this is almost transcendental reaching high, light and immaterial registers, so: 25 + 18 + 18 + 18

3) now percussion group is foregrounded vaguely referring to actoriality, but rather with a fugal lexeme emancipates mute from direct actoriality bars 25-105 this is like a long *Durchführung* in a sonata, but also virtuoso i.e. evoking S2, certain genre of performance at the same line

4) that leads $\Longrightarrow$ to a glissando of strings, i.e. M1 also elevating, striving for transcendence but leading to enigmatic piano tones prepared note (with jazz brushes), returning our actor on the earth

Figure 8. Analysis of Penderecki's *Anaklasis*

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[1] For music examples see Schwinger (1989, 141, 14).

CELLO CONCERTO NO. 2

Years after these pioneering works Penderecki reacted again to the epistemic changes in the Polish cultural environment and wrote, among others, *St Luke Passion*, which he considers himself a decisive turning point in his career. Ray Robinson and Allen Winold (1983) speak about it:

> The obvious musical craftsmanship of the work combined with the fact that here was a courageous young composer dealing with a topic that was forbidden by his government, made the *St. Luke Passion* all the more appealing to the protest-minded musical public of the mid-1960s.

And Chłopicka says:

> Penderecki himself proposed: For me the conscious use of tradition became an opportunity for overcoming this dissonance between the artist and the audience, I look back feelingly on my *St Luke Passion*…" (2003, 229)

The new consciousness of tradition tradition later inspired the composition of the *Violin Concerto* (1977) for Isaac Stern and the *Piano concerto*, from which there is a recording (Barry Douglas), but the score is not available. The *Cello Concerto No. 2* (1982) belongs also to this line in which noise-oriented cluster music gave way to a melodically stronger tonal language, which referred to post-Wagnerian chromaticism.
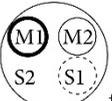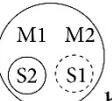
I have chosen this *Cello concerto* for the object of a zemic analysis in order to see how this approach fits to this style change. Schwinger's analysis is again an excellent basic explanation of the work, but now I try to reconcile the piece with the themes discussed in this essay.

The beginning of the work gives rise immediately to methodological reflections. We hear there in the upper register, higher than cello normally reaches, a recurrent motif which expands into a glissando to both directions; it is a motif which is fixed at one point, which from *M2* directly becomes a sonoristic *M1* or a thin sound field. Yet is it any *M2* yet at all but rather a kind of "gesture", a would-be-actor, in any case a kind of motif of resistance right at the beginning or its log-zemic is against? By its semantics it is like from a horror movie, like from Morricone. But it is followed by a third element, the chromatically descending motif like in a chaconne, or here we have *S2* (genre).

These three elements together constitute a bundle of motifs. This evokes the notion of a **trope** of Robert Hatten. Trope is a rhetoric figure in which—

like Hatten's examples show, for instance in the Beethoven *Piano Sonata in A Major* op. 101—at the opening of the finale there is a march motif and a pastoral type musette idea (Hatten 1994, 108). So here we have a situation in which two consecutive signifiers or signs have the same meaning. The contrary case is when one signifier has two meanings there: the proper one and the connotative signification.

If, then, Penderecki's *Concerto* opens with three motifs which hold together, would it be a kind of **triple trope**? Hatten himself applies the idea of trope to Penderecki's *Credo* (Hatten 2018, 11–25) but it may well fit in here. In this concerto the obstinate repetition of the high note serves as a motif later in the openings of the ritornelli, which then have rhetorically the function of an *anaphora* (*anaphora* has been recently investigated in Mozart's piano concerti by Panu Heimonen, University of Helsinki). Namely, when the soloist enters, it has a completely different motif—the main actor of the concerto. I do not recall whether the cello ever plays that *anaphora* motif of the orchestra. The row type theme of the cello again becomes its own *anaphora* in the course of the work.

sections by ET	bars	
1	0-3, 9	function is inchoative i.e. beginning, but one is playing with it i.e. it is negated 1) start in high register motif which cello could not play so comfortably 2) glissando: sonorism 3) but in1,6 start the descending basses of chaconne;hence it refers to a baroque genre (S2) and then lets the listener wait for classic form and aesthetics in general (S1) 4) is the motif also M2 i.e. an actor? It is later revealed to be a kind of leitmotif evoking horror movies, or S1 is aesthetics of horror

2	3–4	(M1 (M2) / S2 S1) it is a row cello theme which enters, it is raising but its dissolution starts immediately by figuration of the cello
3	5–6	ritornello of the orchestra, the row as reversed but still it seems to be an anaphora
	6–7	Shostakovitsh citation! (from Trio) or M2 is stemming from a zemic of another composer but even it dissipates
4	8	(M1 (M2) / S1 S2) the main actor the row returns i.e. it has an anaphoric repetition
5	11	solist appears as a virtuoso, fastness, i.e modality of 'can' is foregrounded, log-zemic against; sudden *sf* clusters
	12	particularly here against
6	12	cadence, double holds

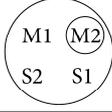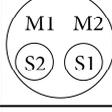| 7 | 13 | ritornello,, inversion of the row zemic as reversed

(M1 (M2) / S2 S1) ⟵ negated

texture becomes fugue-like (baroque S2) |
8	18–19	two solist actors: cello and percussion
9	20	*ludus*, payful, *Spiel*, *jeu* or S1 aeshetics is foregrounded: (M1 M2 / S2 (S1))
10	21	return; the motif of upper register i.e. M1=quasi M2, recurs, refers to a rondo type form or S2 contemplation, reflection (supra-zemic!), the music stops, the play evades
	24	cantabile development of M2, *morendo*, *tenuto* against but not shockingly, but languishing
11	27	new tempo, again giocoso Shostakovitch motif at cello, orchestra M2 row, broken actorial *pouvoir*, 'can' modality, virtuosity of cello, double attacks, agitato, presto
	39	row as sound ff, space is filled against
12	39, 6	cadenza

13	40	lento, return to the anaphoric repetition of the opening motif, chaconne also recurs
14	41	cadence, sonorism, *rubato* M2 as transformed *sf* accord:
	42	log-zemic is against ⟵ cluster *ff* bells, chimes, fateful quality, connotation ⟵ against, solist is reciting, dramatic, espressivo: M1 (M2) S2 S1
15	49 51 53	Shostakovich motif again M2 as condensed into a chord and its eruptions solist *rubato* (appearance of the solist means always primary M2, but its main motif in the score is also M2 but in the sense of secondary actoriality fight between M1 and M2

16	57	scherzando, dissolution, counterpoint ▭⟶, disengagements, fugue like here starts a series of variations
	58	M1 M2 (S2) (S1) Soi1 = *jeu*, Soi2 = Finale
17	68 72	Finale, kinetic energy explodes *fff* ⌇⌇ ⟵ log-zemic movement against maximally
18	74, 10 76	Coda *tempo primo* cello theme: a transcendental gesture, elevating elevation continues at orchestra like in Sibelius

Figure 9. Analysis of Penderecki's *Cello Concerto No. 2*

CONCLUSIONS

We can also try to formulate a kind of synthesis of the entire *Cello Concerto No. 2* by combining the Greimassian semiotic square and the zemic model.

The application of the semiotic square is quite simple: we have four terms: s1, s2, non-s1 and non-s2. They provide us with a hypothetical structure for any empirical field which may first look quite chaotic. We have to recognize what is s1, then what is s2, and continue until the whole square has been filled by

cases found in the object of study. The temporal order of their appearance often constitutes what we call a "narrative arch" or "tension": once we have found for instance non-s1 we are only looking forwards to encountering s1. Normally, in a musical work it is left to the end of the work.

When we move to the zemic model, we again have four entities there: M1, M2, S2 and S1. However, their logical relations are not quite the same as in the semiotic square, that is, those of contrariety, contradictoriality and complementarity. Yet, we find the inner movement of "narrative" nature even here—we move from M1 to M2 and further to S2 and S1.

In the case of Penderecki's *Cello Concerto No. 2*, we hear first the high pitched, very tensional motif on a high B note. We do not know yet how it is resolved along the work, but certainly it must lead to something more stable, to "being" from its suppressed "doing". As such it is the "problem" of the work in the Lévi-Straussian sense. The elevation represented by the "row theme" heard rather soon is not the solution. That is a gesture of transcendental nature striving for trans-a-scendence—but, note, only aspiring for it. Nor is the sinking chromatic scale, representing baroque chaconne a true answer and goal of M1. This descending motif is thus rather S2, referring to a certain genre. Now the true affirmation of the term S1/M1 at the beginning is saved to the end of the whole piece: S1, an aesthetic value or sign of a "belief", modality of "croire", is conveyed by a rising scale to the heavens—that is, giving us a true trans-ascendence. We may with full reason ask if we ever experience in this work a convincing trans-de-scendence, or an annunciation from "above".

S1 = M1   S2 = M2
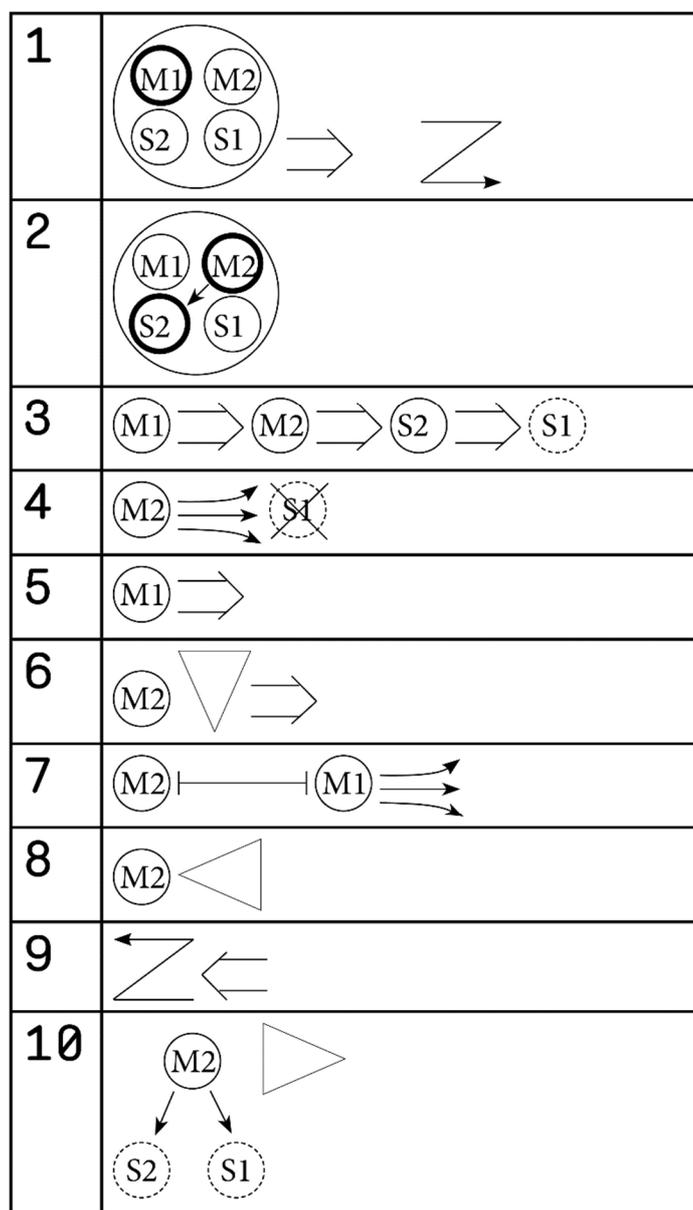

Figure 10. Semiotic square/zemic with music examples

Once we have made this synthesis for the *Cello Concerto No. 2*, we could of course do the same procedure to all those three other works discussed here. Nevertheless, it might be the challenge of another essay.

Now we can condense our analyses into simple log-zemic symbols, which portray—without any verbal support any longer—the dynamic, dialectical, significative movement and form of each piece:

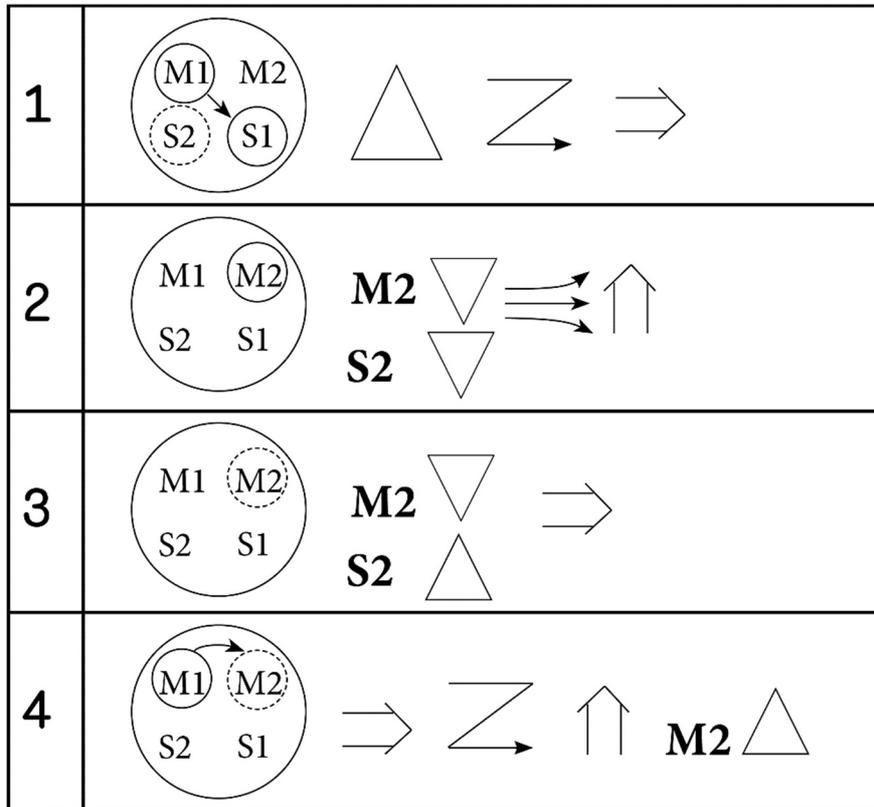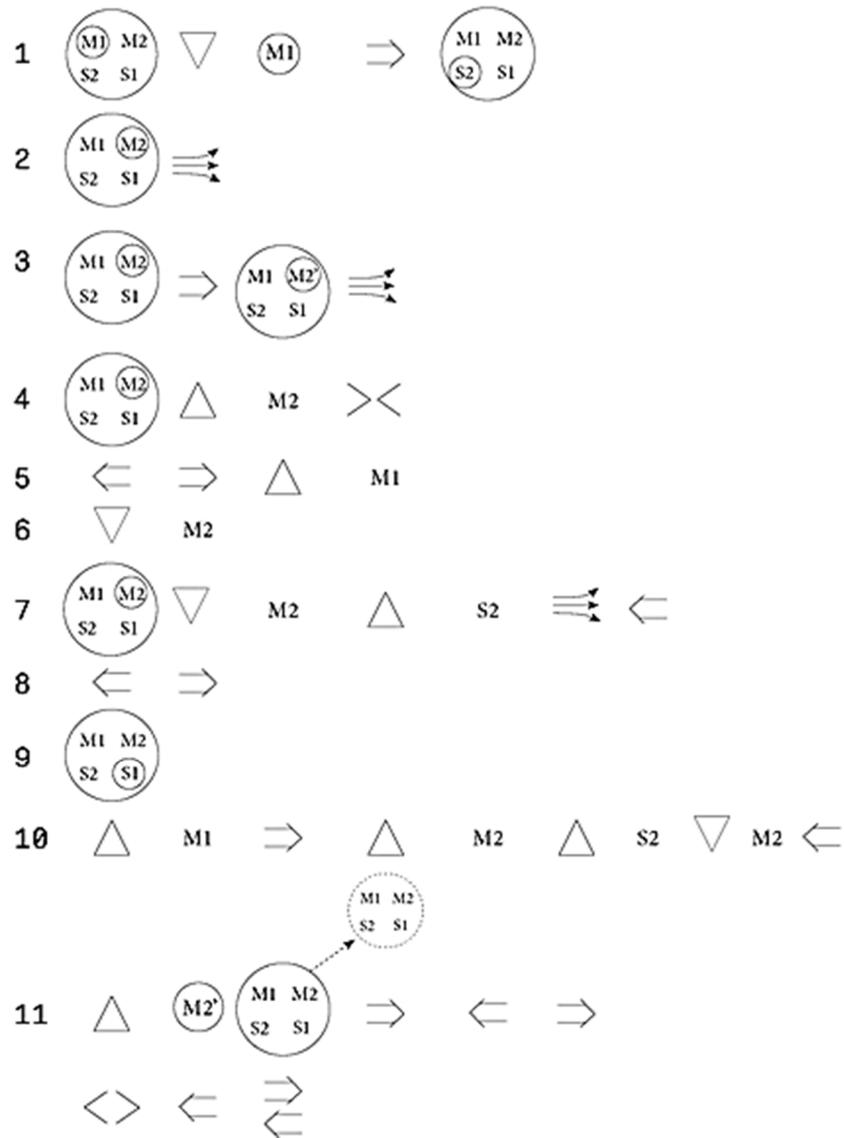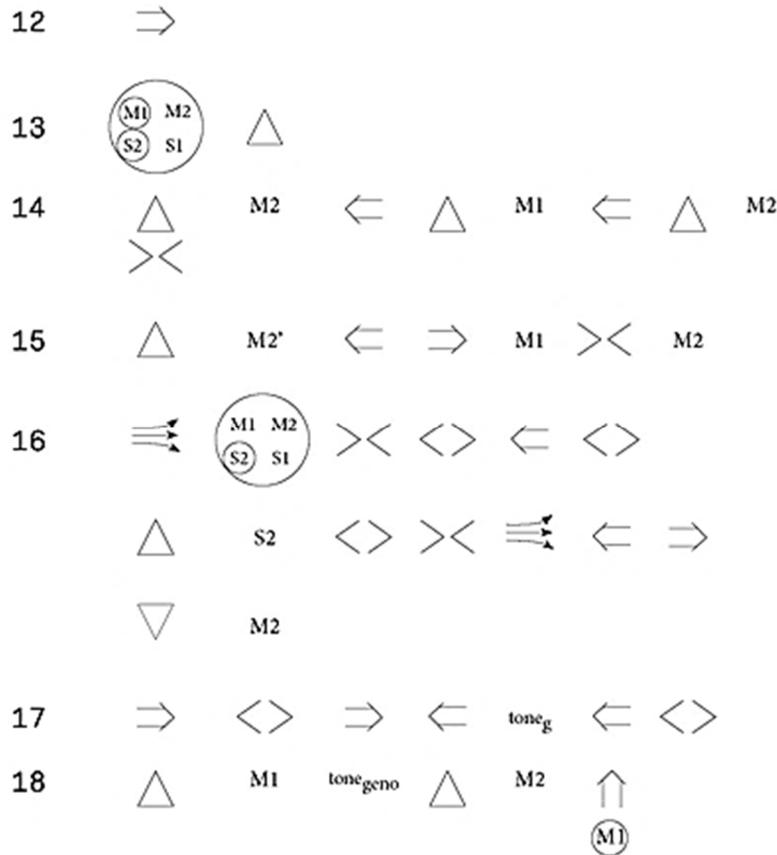Figure 11. Zemic scheme of Penderecki's *Threnody*

Figure 12. Zemic scheme of Penderecki's *Fluorescences*

Figure 13. Zemic scheme of Penderecki's *Anaklasis*

Figure 14. Zemic scheme of Penderecki's *Cello Concerto No. 2*

12   ⇒

13   (M1) M2 / (S2) S1   △

14   △ ⟩⟨ M2 ⇐ △ M1 ⇐ △ M2

15   △ M2' ⇐ ⇒ M1 ⟩⟨ M2

16   ⇛ (M1 M2) / (S2) S1 ⟩⟨ ⟨⟩ ⇐ ⟨⟩

    △ S2 ⟨⟩ ⟩⟨ ⇛ ⇐ ⇒

    ▽ M2

17   ⇒ ⟨⟩ ⇒ ⇐ tone$_g$ ⇐ ⟨⟩

18   △ M1 tone$_{geno}$ △ M2 ⇑ / (M1)

What are we striving for with the zemic analysis after all? It tries to show the connection of music—albeit it is as "absolute" as ever—to a certain fundamental semantics, which is present and imprinted in everything what the human mind invents and produces. Yet, the meanings which emerge here by themselves and organically without any reference to the world of *Dasein* are in constant flow and alternating. This causes the constant variability of the weights and underpinnings of the four elements of the zemic. Even in such an abstract music like in sonorism one can find elements of zemic and log-zemic. However, analysis is still unfinished: the intention is to portray the musical surface by abstract symbols to which the musical events in a work are reduced. Although the word "reduced" is wrong here since the analysis keeps itself on the phenomenological level or in "music as heard" (Thomas Clifton).

On the other hand, the advantage of the zemic analysis lies in the fact that it is not bound by any particular style… or even society—or culture, for that matter. Rather, it aims for universality, for what our research is focused on, and for what Krzysztof Penderecki was striving using his music—universal values.

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KRZYSZTOF PENDERECKI:
AN EXISTENTIAL SEMIOTIC STUDY OF HIS SONORISTIC WORKS
AND CELLO AND ORCHESTRA CONCERTO NO. 2

Summary

This paper presents the first application of semiotic theories by Eero Tarasti — and particularly of the so-called existential semiotics — to the music by the avant-garde composer Krzysztof Penderecki. Using the zemic analysis of four works: *Threnody to the Victims of Hiroshima*, *Anaklasis*, *Fluorescences* and *Cello Concerto No. 2*, the author shows the connection of music — albeit it be as 'absolute' as ever — to a certain fundamental semantics, which is present and imprinted in everything what the human mind invents and produces. Yet, the meanings which emerge here like by themselves and organically without any reference to the world of Dasein are in constant flow and alternating, causing the constant variability of the weighs and underlinings of the four elements of the zemic. Even in such an abstract music like sonorism one can find elements of zemic and log-zemic.