From Kamil Cieślik's In Danzig to In eDanzig

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Abstract

The subject of this article is the discussion of the intermedial work *In eDanzig* by Kamil Cieślik, a contemporary composer of Polish origin, created in 2021 as a result of the process of precomposition of the earlier piece In Danzig. However, the resulting composition (the electroacoustic layer) cannot be viewed as a separate piece by Cieślik; it is only an outcome, an extension of the original composition. This intermedial variant was created to meet the need for a choreographer and a visual artist to create performance art *In eDanzig*. The composer added to the vocal parts a layer of electroacoustic media (sound tracks generated by synthesizers and *musique concrète* recorded on tape), thus creating an intermedial work with an integrated artistic message.

The paradigm of interdisciplinarity thus entails the performance of a multi-aspect analysis of the work, not only within the scope of building the form continuum and defining the musical style, but also within the scope of defining the relationship between the media which participate in the signifying process. The *In eDanzig* project is an example of the so-called choreographic inphrasis, an artistic (choreographic) representation of literary text and music, including synthetically generated occurrences, in the musical work by Kamil Cieślik. Hence, the article conveys the essence of the precomposition process of the piece *In Danzig*, including Cieślik's idea for generating sounds by different media. For this purpose, the term intermediality, fundamental for this issue, has been carefully defined, as has been, as part of the terminological network, the phenomena of artistic ekphrasis and inphrasis.

Keywords: intermediality, Polish contemporary art and music, virtual reality, generative music, electro-acoustic music, ekphrasis, inphrasis

1. The subject of reflection. The precomposition of *In Danzig*

The author of this article chose as her subject of study a composition from 2019 by Gdańsk-based, new generation composer Kamil Cieślik, which, for the purposes of this presentation, has undergone the process of precomposition. The aim was to compose an additional layer of electronics and audio tracks generated by synthesizers, which, together with the original, create an intermedia work, producing a coherent artistic result. As a consequence, a variant of the piece *In Danzig* was created, enriched by an electroacoustic layer taken from the composer's existing and abstract ideas which have been transformed.

The original version of the piece *In Danzig* is written for a traditional ensemble: a four-part a cappella choir (a vocal octet composed of two sopranos, two altos, two tenors and two basses), and the composition shares its title with that of a poem by Joseph Karl Benedikt von Eichendorff, a German poet of the Romantic era.

Without modifying the original, the composer added to the basic version an additional electroacoustic layer that uses certain parameters of the former (the organisation of musical time, the number of media representing the number of vocal parts, musical material), at the same time preserving the caesurae in the division of the musical form into seven sections. The duration of the composition, despite the preserved division into 67 bars, undergoes augmentation due to the addition of signals generated with the help of the equipment in the introduction and the coda of the composition (the duration of the new version of the piece has been extended from 3'20" to 5'25"). The culmination of both the original and the electroacoustic layer falls, however, on bar 50 and this is the position in which synchronization of both layers, the electroacoustic one and the vocal one (in the case of live performance of the piece with tape), should occur. Following is the layout of the structure of both variants:

Section 1. Equivalent of introduction/opening in the original piece (bb. 1-7).
Section 2. Verse 1 (bb. 8-17).
Section 3. Verse 2 (bb. 18-29).
Section 4. Verse 3 (bb. 30-39).
Section 5. Verse 4 (bb. 40-50).
Section 6. Verse 1' (bb. 51-61).
Section 7. Coda (bb. 62-67).

2. *In eDanizg: a generative idea*

The piece *In Danzig*, composed for the traditional (classical) medium that is human voice, became an object of the composer's use of creative coding which, transcending the confines of art per se, has become the basis for creating a 'media hybrid'. The algorithmic process programmed by Cieślik becomes simultaneously a tool for representation, transformation, parametrisation or simulation. The use, in artistic practice (the process of composing), of advanced algorithmic procedures made it possible to create an intermedia composition of artistic and aesthetic value. It is worth noting here that, in this case, the generative system ceases to be only an instrument or a technical solution in the hands of the programmer artist, becoming his 'collaborator and creative partner' [6].

While working on *In eDanzig*, Kamil Cieślik had the opportunity to use the latest technology for generating sound signals. The use of electronic and digital media, i.e. computer software, sound-generating synthesizers, sound tracks containing concrete sounds and the use of mathematical principles permitted/allowed the composer to create new electroacoustic musical work and new/special timbral quality, additionally marked by semantics.

As a result, an electroacoustic composition with nine separate 'parts' was created. It constitutes an intermedia work, in which Cieślik combined the classical medium (voices), the electronic and digital medium (*musique concrète* and fully electronically generated music) and the literary medium (text of the poem).

As part of the precomposition process, the composer used the following:

- the REAPER software and its built-in tools (plug-ins, digital formats and scripts) for multi-track sound design,

- Alpha-Ray (VST) synthesizers for generating a system of audio bands (two synthesizers generating noise bands, two synthesizers generating sounds of definite pitch),

- a Zoom H2n digital audio recorder with a built-in system consisting of five different, configurable stereo microphones, a high-pass filter, compressor and a monitor speaker for playing the *musique concrète* part (the processing of the recorded female voice and of the real-world sounds, being elements of the Schaefferian 'soundscape') [9].

The processing of the source material provides a basis for building the form continuum of the piece, delivering results different from the ones audible in the original. Noise sounds thus have major significance in this composition. They do not have a destructive role but integrate all the components of the form into a whole and they build dramaturgy.

Each of the synthesizers used generates different signals:

- Synthesizer 1 – a sound imitating the crashing of sea waves panning, in the course of the whole piece, from the left to the right side.

- Synthesizer 2 – a sound imitating a blowing see breeze moving, throughout the duration of the piece, in the panorama in opposition to the sound of sea waves, from the right side to the left side.

Additionally, it generates a sound resembling a swish described in the synthesizer by the 'cut-off' parameter. This signal's pitch throughout the duration of the composition undergoes systematic changes; it rises by a value of 0.25 pts (from 5.00 to 6.75), applying the principle of calculating an algorithm based on the Fibonacci sequence, where the consecutive words of the recurrence sequence reflect/represent the bar numbers in which the change occurs. Pitch variability in particular bars, as per this principle, is illustrated by Diagram 1.

Despite the fact that the pitches are generated with the use of a modular scale, here having a generative potential for abstract pitch formulae, one cannot aurally follow the logic behind these structures. Rather, the composer wanted to develop a method for determining (calculating) the relationship among

particular pitches of the abstract swish signal. The use of the Fibonacci sequence became one of the compositional techniques of/in the musical work, providing yet another example of 'a manifestation of the mathematization of art' [10].

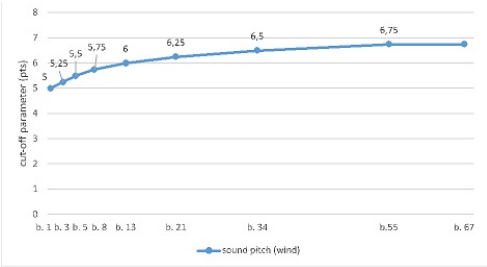

Diagram 1. K. Cieślik, In eDanzig, wind sound pitch variability throughout the form. Diagram by Kamil Cieślik

- Synthesizer 3. – a harmonic background in selected positions, only operating within the pitches E, G, B♭, D#.

- Synthesizer 4. – creates the bass foundation in the introduction and the coda of the composition; moreover, in several positions, it adds a bass register to the vocal parts.

Besides the signals generated by the aforementioned synthesizers, the composer, as part of the precomposition process of the work, created four sound tracks that were recorded on tape. The first two tracks include the sounds of the recorded whisper of a woman who recites the poem by Joseph von Eichendorff. On both tracks the recording is heavily sped up and transformed, including a systematic change in volume, panning and amount of reverb used.
The next two tracks also include *musique concrète*, which constitutes an element of the 'soundscape', as the composer recorded sounds of everyday objects such as a working cooker hood and the sound of a seagull, which he transformed electronically.
While creating the electroacoustic layer, Cieślik also planned for the use of mathematical regularities in introducing tempo changes. The composer assumed that the output tempo of the electroacoustic layer would be 50% faster than of the original (a crotchet equalling 86 bpm changes to a crotchet equalling 172 bpm). He indicated the positions (bars in particular sections) in which the tempo undergoes changes (augmentation or diminution). The mechanism for composing agogic principles in *In eDanzig* operates on calculating the percentage of increasing or decreasing the number of beats per minute in a given section of the piece, and the percentage value is equal to the number of bars in the respective section:

- in section 1 (7 bars), the tempo throughout its duration increases by 7% with regard to a doubled opening tempo of the original,
- in section 2 (10 bars), the tempo throughout its duration decreases by 10% with regard to a doubled opening tempo of the original,
- in section 3 (12 bars), the tempo throughout its duration increases by 12% with regard to a doubled opening tempo of the original,
- in section 4 (10 bars), the tempo throughout its duration decreases by 10% with regard to a doubled opening tempo of the original,
- in section 5 (11 bars), the tempo throughout its duration increases by 11% with regard to a doubled opening tempo

of the original,
- in section 6 (11 bars), the tempo throughout its duration decreases by 11% with regard to a doubled opening tempo of the original,
- in section 7 (5 bars), the tempo throughout its duration increases by 5% with regard to a doubled opening tempo of the original.

It is worth noting that, by the end of the piece, in one of the tracks (Track 1) containing concrete music material, the composer did not use the multiplication of tempo. Diagram 2 below presents tempo changes in the electroacoustic layer throughout the duration of the piece.

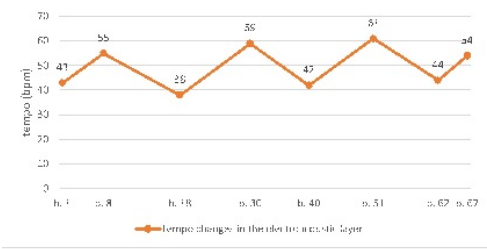

Diagram 2. K. Cieślik, In eDanzig; tempo changes in the electroacoustic layer. Diagram by Kamil Cieślik

3. *In eDanzig* from the perspective of intermediality. The phenomenon of artistic *ekphrasis* and *inphrasis*

The notion of 'intermediality' remains a debatable one and is being used in different ways in various areas of scholarship. The use, by the scholars of this phenomenon, of McLuhan's description that 'the medium is the message' has opened up various fields of research, the main subject of which are media, their configurations and interrelations. On the one hand, intermediality is connected with the definition of new media and their immediate use in a work of art; on the other hand, with determining how they are experienced and which content is delivered to the receiver by particular media. Hence, using this phenomenon for musical analysis still requires systematizing within the scope of terminology and methodology.

Dick Higgins, the author of the term 'intermedial', uses it in reference to such works in which the material of various more established art forms are 'fused conceptually', not only juxtaposed' [4].

It is worth noting at this point that Werner Wolf, in his studies on intermediality, defines media as 'conventionally distinct means of communicating cultural contents. Media in this sense are specified principally by the nature of their underlying semiotic systems […], and only in the second place by technical or institutional channels' [11].

Chiel Kattenbelt, in turn, thinks that the notion of intermediality, similarly to the notion of multi- or transmediality, is used in different (media and artistic) discourses and with different meanings, assuming mutual affects, the redefining of the relationship among media and an altered perception [5].

One should also differentiate whether or not, in the artefact created, there are forms of media combination or intermedial references. Irina O. Rajewsky, an intermediality scholar, emphasizes that 'In the case of intermedial references it does not affect the material manifestation of various media within a given medial

configuration, but rather the specific quality of the reference itself' [7].

According to Rajewsky, 'intermedial references are to be understood as meaning-constitutional strategies that contribute to the media product's overall signification: the media product uses its own media-specific means, either to refer to a specific, individual work produced in another medium (i.e., what in the German tradition is called Einzelreferenz, Individual reference), or to refer to a specific medial subsystem (such as a certain film genre) or to another medium qua system (Systemreferenz, 'system reference'). The given product thus constitutes itself partly or wholly in relation to the work, system, or subsystem to which it refers' [8].

The subject of reflection – the composition *In eDanzig* – is, following Rajewsky's conception, an intermedial work. Besides using diverse types of media, Kamil Cieślik alludes to a specific work created in a different medium (e.g. to a literary work in electronic media or to music in the text of a poem).

The composition in the analysis appears as multi-plane discourse presenting the relationships and dependencies among different artefacts, the origin of which serves a secondary role. These referents may be likened to an intermedial phenomenon, ekphrasis[i], which Claus Clüver extended to non-visual arts. Hence, ekphrasis may refer to architecture, dance, film as well as absolute music. The problem of musical ekphrasis [1] has been studied in detail by Siglind Bruhn, who differentiated between musical pieces being musical representations of something represented earlier verbally and musical representations of works of fine art [2].

The task of an added electroacoustic layer is to enrich the dramaturgy of the work and to enhance the dark mood imposed established by the text. In the diagrams below which illustrate the temporal-dynamic representation of the piece's original musical notation enhanced with an electroacoustic layer (sonogram, spectrogram), one may notice the caesurae delineating individual sequences of the form as well as the way of shaping expression (see Diagram 3). In the diagram depicting the temporal-frequency visualization of sound (spectrogram) of the electroacoustic layer in *In eDanzig*, one may notice the shaping of the parameter level of the signal representing the blowing breeze, panning from the right side to the left (progressively increasing frequencies and changes in sound intensity in time in the form of a sound wave graph marked in red). Visible in the upper part of the spectrogram in the introduction (from 1'10" to 1'30") and in the coda are red signals representing a processed sound of a seagull.

In Danzig

In eDanzig

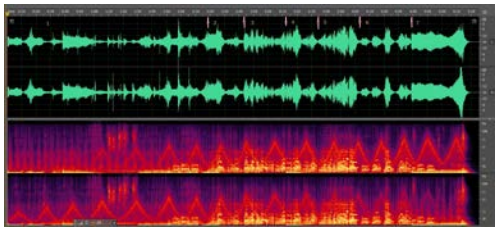

Diagram 3. K. Cieślik, In Danzig, In eDanzig. A sonogram and spectrogram (the division of the large-scale structure)

The composer's use of the 'musical' meaning of the poem's text (verses 3 and 4), directly and, on the basis of expressive experience of the text in a musical work, represents an example of musical ekphrasis. The keywords are semantically loaded; in his poem, the poet made general references to music. The latter, combined with natural phenomena, appears in the poem as a realistically sounding onomatopoeia, which imitates the sounds of sea waves, the sound of the song sung by the lighthouse keeper).

3/ Ringsher durch das tiefe **Lauschen**,
Über alle Häuser weit,
Nur des **Meeres** fernes **Rauschen** –
Wunderbare Einsamkeit!

4/ Und der Türmer wie vor Jahren
Singet ein uraltes Lied:
Wolle Gott den Schiffer wahren,
Der bei Nacht vorüberzieht.

In the musical layer of the voices (bb. 30-43), the 'musical' words do not have any symbolic meaning, as confirmed by the composer himself. Its harmony and texture is simple, with none of the vocal lines becoming superordinate in these positions. Only on the word 'Lied' does the composer move all the parts in parallel up from the dissonant G D E♭ F to the consonant D F A E♭ (b. 43), which may be associated with the sound of an 'old song' (see Figure 1). However, the content of the third verse provided inspiration for creating an electroacoustic layer, in which one may hear the sound of the sea and the wind.

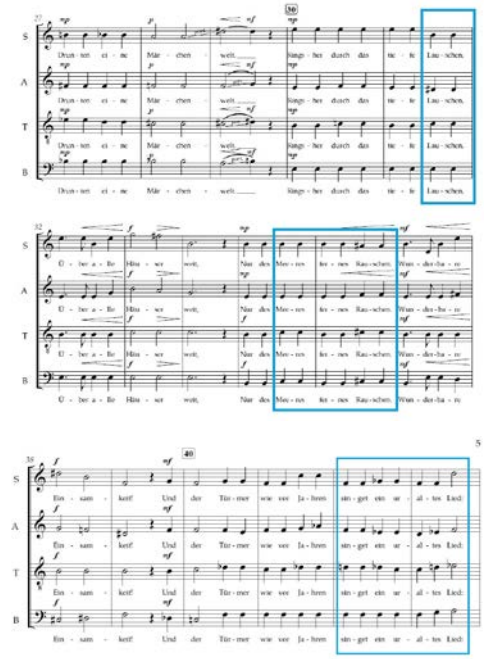

Figure 1. K. Cieślik, In Danzig (bb. 30-43), the Publishing House of Stanisław Moniuszko Academy of Music in Gdańsk, 2021

Cieślik's work, moreover, has become an object of further relationships among media – creating choreographies – and, as a result, an audio-visual work whose scope of generative art was additionally based on the use of tools for visualizing music during the live performance act. The collaboration between the artistic and designer perspectives gave the work an essential dimension, offering the experience of an artefact and new media.

One may refer such action to the definition of musical ekphrasis proposed by Siglind Bruhn and formulate an antonymous neologism, i.e. artistic inphrasis[ii], whose aim is the artistic (choreographic and visual) representation of the musical notation, the original variant of the composition.

The essence of inphrasis is thus both an 'interpretation' of musical notation conveyed through visual means and the dancer's expressive movement, and its 'supplementation', or enriching the work with emotional content. The choice of means of expression used by the dancer in the *In eDanzig* – live performance project makes it possible to treat choreography like an example of choreographic inphrasis, or translating the musical content to movement and to a visual layer.

The outcome of the performance artists' (choreographer, dancer, VJ) work made it possible to create an intermedial work in which the music and the text evoke in the moving soloist and in the author of the visual layer that inphrastic emotion.

4. Conclusion

Undoubtedly, signal generators and algorithmic methods are becoming tools which open up new fields and expand our understanding of creativity as an inseparable synthesis of art and science.

Kamil Cieślik 'moved', in a way, the studio work on creating a permanent tape recording of *In eDanzig*, in his understanding, to the stage; the piece 'comes alive' during the artistic

performance, although it lacks the elements needed for a live performance. For the electroacoustic layer added to the original version of the piece exists in the form of a sound track recorded on tape. Here, the synthesizer, computer and electroacoustic equipment play a role that is analogous to voices, piano, violin or any other orchestral instruments. They become one of the parts.

The interaction among the different media participating in the development of the narrative in *In eDanzig* permitted the composer to create the following: a new representation of the media used, new dramaturgical strategies, new principles of structuring and presenting words and sounds, devising a new way of perception and generating new cultural and psychological meanings.

The precomposition process of *In Danzig* also raised further interpretative possibilities for creating additional visual and choreographic effects in the work.

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Notes

[i] *Ekphrasis*, according to James A.W. Heffernan (a scholar of this phenomenon), uses a single medium for representing (word) in order to represent a different medium which, in itself, is already representative (image); 'verbal representation of graphic representation'. See [3].

[ii] *Inphrasis*: a neologism coined in the field of visual arts (a work of art inspired by text); a process that is the reverse of ekphrasis.