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How to Appropriately Define a Musical Score?

An Outline of the Actual Taxonomy of Musical Scores with Regard to the Development of Unconventional Notation

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Abstract

Graphic scores abandon traditional musical notation for visual symbols, inviting open-ended interpretation and improvisation. This article explores the limitations of existing taxonomies of graphic scores, which often neglect the interpretative process and the roles of the composer, performer, and audience. It proposes a different taxonomy considering the score's function, authorial intent, and the type of symbols used, offering a more holistic approach. Through case studies of performances, the article highlights how graphic scores bridge music and visual art, fostering creativity and collaboration between composers, interpreters, and audiences in some cases, with an emphasis on the role of free improvisation as a crucial element in interpreting these open works. Free improvisation allows performers to fully engage with the graphic score, transforming interpretation into a collaborative and spontaneous act of creation.

Key words

graphic scores, taxonomy, music improvisation, music interpretation, composer's intention, performer's role, interdisciplinary collaboration, experimental music, open works

Introduction

“Graphic scores are scores that renounce traditional musical symbols in favor of new graphic elements to stimulate open-ended performance and improvisation. The consequence of graphic scores is radical uncertainty, touching the very boundaries of traditional scores. Beyond them, composition gives way to free improvisation. These scores also focus attention on the synesthetic aspect of musical notation, which requires musicians to interpret visual symbols as sounds. In this sense, they represent a significant aspect of contemporary art: the transition to a multimedia aesthetic practice.”¹

Rather than a study, this contribution is an initiative in the field of artistic research. In this article I would like to talk not only about scores or rather graphic representation of sounds and few related topics like taxonomy and musical interpretation but also I would like to show how the analysis of interpretative processes can help us to see them in a wider context and complexity.

Graphic scores for music have been taxonomized in many different ways. Erhard Karkoschkas’s typology, published in 1966, is a classic in this field, nicely elaborated fifty years later by Brian Inglis. Other ways of distinguishing in the vast world of graphic scores have been shown by Walter Gieseler or Michal Murin to name just a few. All of these will be briefly discussed in the chapter devoted to a short overview of taxonomies.

But there is a problem with the most widely used taxonomies. The challenge with most efforts to create a unified taxonomy stems from a narrow understanding of what a (graphic) score entails or its role within a broader process. Traditional methods of categorizing scores, such as those proposed by Karkoschka, focus solely on the score itself – its components like musical or graphic symbols, instructions, and so forth. However, this approach is inherently limited because it overlooks the integral connection between the score and the processes of its creation (and interpretation). These classifications fail to account for the entire process, which includes not just the object (the score) but also the subject (the composer), the audience (the observer), and the act of interpretation or analysis. A good taxonomy, in my opinion, should show a nuanced understanding of the entire “equation” related to the score: the author, the score, the interpreter, the interpretative process, and the audience or listener. After examining various scores and various interpretative processes, I will come to a few partial conclusions, which I will then synthesize into a proposal for a different taxonomy, which categorizes scores based on their function in relation to sound realization, the author’s intention, and the nature of the signs used, and which offers a more holistic framework for understanding and analyzing graphic scores.²

1 COX, Christoph. Every Sound You Can Imagine: On Graphic Scores. In COX, Christoph; WARNER Daniel (eds.). *Audio Culture: Readings in Modern Music*. Revised Edition. New York: Bloomsbury Academic, 2017, p. 210.

2 I would like to thank my mentors Jozef Cseres, Viktor Pantůček, my musical colleagues Angélica Castelló, George Cremaschi, David Danel, Marek Choloniewski, Fero Király, Daniel Matej, Magda Mayas, Elia Moretti,

Scores

A musical score can take a multitude of forms and each author chooses a different way of notation, or the transfer of the author's idea to the performers, who then become the key to the materialization of the author's intention. In general, the score represents a kind of compass, a guide, a recipe created by someone who desires to manifest his or her authorial idea in the sonic or performative realm. Performers read the score to know what they can or must do to physically realize the musical or performative act.

Graphic scores (*graphic* in this article means a fairly wide range of media or forms), with their departure from traditional notation, encapsulate a spectrum of musical, performative and artistic expression that defies conventional classification. The inherent ambiguity of these scores, while presenting challenges in interpretation, opens up a vast field of potential meanings and interpretations. This openness positions the graphic score as a unique form of art that is simultaneously a musical composition and a visual artifact, inviting a multidisciplinary approach to its interpretation and realization. The main period of flourishing of graphic scores was the 1950s–1970s and it occurred at the border of visual art, music (especially electronic music progress) and performance. In the Czech Republic, this development can be observed, for example, in the work of Milan Grygar,³ a visual artist fascinated by sound, while abroad it can be observed in the works of several composers fascinated by visual art, such as Earl Brown, John Cage, Cornelius Cardew, Roman Haubenstock-Ramati, Anestis Logothetis or Boguslaw Schaeffer, to mention just a few. The advancement of electronic music played a crucial role above all because the effort to fix it into musical notation led to another impulse in the development of graphic scores and to a completely new notation, whose variability is easily demonstrated by the compendium *Notations 21*, which is somehow a continuation and at the same time a tribute to the now classic in its field, *Notations* by John Cage from 1968.⁴ From *Notations 21* it is evident that the phenomenon of graphic scores is today already a relatively common alternative for expressing the composer's ideas, as it has been shown that the freedom of the interpreter can sometimes bring better results than the strictly

Jaroslav Št'astný, and the incomparable artist Milan Grygar, with whom I have discussed the various themes and issues contained in this article and without whom its completion would not have been possible.

3 Milan Grygar (1926-) is a Czech painter, graphic artist, typographer and creator of sound realizations. The work of Milan Grygar is characterised by an original conception of the relationship between image, sound and space. In 1965, he created the first of his *Acoustic Drawings* in which he linked the realisation of the work with the phenomenon of the spatiality of sound. Grygar then developed his specific, original concept of the relationship between image and sound in the following decades in various, often very different relational analogies, until today.

4 Theresa Sauer's voluminous book *Notations 21* is an admirable and beautiful compendium of notations, which could mostly be described as graphic scores, and the notes of some of the composers on their own compositions are undoubtedly interesting and important for study, but the book lacks any analytical view of the subject, which, it must be added, was not the author's intention. SAUER, Theresa: *Notations 21*, New York: MarkBatty Publisher, 2009, p. 11. I highly recommend anyone interested in graphic scores to delve into the "classic" *Notations* of John Cage and Alice Knowles. This book is made up of works by 269 composers. CAGE, John: *Notations*, New York: Something Else Press, 1969.

fixed system of the classical score.⁵ As John Zorn notes, for example: “I quickly found that an improviser is not very enthusiastic when I tell him what to play, especially when his invention is more interesting than the prescribed part.”⁶ It is evident that, as Czech scholar Viktor Pantůček says, scores have ceased to function as a relatively closed system, but have become, among other things, a source of inspiration, an open project. The execution of such an open project is then dependent on many things, which on the one hand are related to the very form of graphic scores and on the other with the interpreter, as we will see later in the text.

Graphic scores stand in stark contrast to traditional notation through their unconventional encoding, introducing an element of ambiguity that can lead to varied interpretations of the composer’s intention. This ambiguity, however, is not a flaw but a feature that allows for a multiplicity of legitimate interpretations, enriching the aesthetic experience. Graphic scores are, in essence, open works that invite engagement in diverse ways, depending on factors such as the score’s characteristics and the interpreter’s background. Both systems have their advantages and disadvantages for the interpreter – the more detailed instructions the score gives, the better an interpreter can fulfill or make sense of what the composer might have wanted – while keeping in mind that the composer may not necessarily strive for a specific sound result but rather emphasize the process or method rather than the outcome. In the case of graphic scores, then some authors (such as Milan Grygar) openly attribute co-authorship to the interpreter as the open work directly offers to try to read it in many different ways. Along with the possibilities of open interpretation, the attempt to taxonomically classify the vast amount of material that is commonly categorized as graphic scores will also be problematic.

A brief overview of taxonomies

Since the 1960s, some researchers or composers have attempted to create a typology of graphic scores. Erhard Karkoschka introduced a standard taxonomy of graphic scores in 1966, which divides them into:

- 1) precise notations (creating a real notation system and being relatively playable);
- 2) framework notations (using only certain elements to indicate the course of improvisation);
- 3) referential notations (not offering any specific interpretation details other than the duration of the composition); and
- 4) musical graphics.

5 To complement even more recent activities on this field i recommend looking at the publications of the *smallest functional unit*. Four issues of their publication *Graphème* have been published so far, see <https://smallestfunctionalunit.com/>.

6 ZORN, John. The Game Pieces In COX, Christoph; WARNER, Daniel (eds.). *Audio Culture: Readings in Modern Music*. Revised Edition. New York: Bloomsbury Academic, 2017, p. 215.

Between these two poles – precise notation and musical graphics – there are many, which can be distinguished by the following basic approaches: a) precise skeleton with subordinate graphic influences; b) superior graphic influences with individual precise details; c) graphics, a category further divided into: 1. with specified pitches and durations; 2. without specification; and 3. free choice between 1 and 2.⁷

Based on Karkoschka's division, Brian Inglis offers a division that considers the "length" of the score (e.g. the one-page *December 1952* by Earle Brown compared to the almost two-hundreds pages *Treatise* by Cornelius Cardew etc.) and also account the (non) existence of verbal information.⁸

A different approach can be found in Walter Gieseler, for whom graphics are drawings, but musical notation is a system of symbols. Based on this statement, Walter Gieseler divides graphic scores into groups according to their systemic similarity to conventional notation. He defines groups primarily through examples of specific scores, rather than listing general characteristics. The first group is represented by Anestis Logothetis' *Styx*, the second by Louise Andriessen's *Paintings*, and the third by Dieter Schnebel's *Mo-no – Musik zum lessen*.⁹ Elsewhere, Michal Murin divides unconventional notation into five groups: visualized scores as graphics; intermedia scores; scores of speech and writing; and the final group consists of meta-scores, quasi-scores, and pseudo-scores.¹⁰ Prolific author of unconventional scores, Milan Adamčiak,¹¹ divides his extensive work in much greater detail: initial scores; outline scores; frame scores; block and strip scores; model scores; catalogs, inventories, pattern samples, and systemic scores; music sheets; album sheets; music-space scores; instrumental theater; three-dimensional scores; electroacoustic and tape music scores; plan scores; material scores; installed scores; object scores; wall scores; postscript scores and installations; drawn scores; sketches; and the final group consists of collage-like scores. It is clear that Adamčiak's division as a whole is related only to his own work and will be difficult to apply it to most other authors. However, it can serve as inspiration for the search for a *modus operandi* in creating a suitable typology and, in fact, terminology that does not exist in any generally, not even among academic researchers. The problem with most attempts to establish some unified taxonomy lies in the limited approach to what a (graphic) score is, or that it is part of a process. The classical approach to the division of scores, such as Karkoschka's, where we look only at the score itself and what it consists of (musical or graphic symbols, instructions, etc.), is limited in that it neglects the inseparable parts of the process of creating or

7 KARKOSCHKA, Erhard. *Notation in New Music; A Critical Guide to Interpretation and Realisation*, Tonbridge: Universal Edition, 1972, p. 77.

8 INGLIS, Brian. Towards an analytical framework for graphic scores, and a proposed typology. In *Putting the Graphic in Music – Notation, Analysis & Performance*, 30 November 2015, Senate House Library, University of London, pp. 6–7.

9 PANTŮČEK, Viktor. Elemenární rozvaha o grafické hudbě. In HLAVÁČKOVÁ, Jitka; VOJTĚCHOVSKÝ, Miloš (eds): *Zvuky kódy obrazy / Sounds Codes Images*, Praha: ArtMap, 2020, p. 94.

10 ADAMČIAK, Milan; MURIN, Michal. *Archív III (nôty): notácie a grafické partitúry*. Košice: Dive Buki, 2013.

11 Milan Adamčiak (1946-2017) was a Slovak composer, cellist and musicologist; author of acoustic objects, installations and unconventional musical instruments; performer, visual artist, experimental poet, and mystifier.

interpreting a given (graphic) score. The problem with the above divisions is that they do not take into account the whole process; in addition to the object (the score) there is the subject (the composer), the witness (the audience) and the process of interpretation or analysis itself. These are all important points to consider when examining the phenomenon of graphic scores, as well as other issues such as the author's intention, the function it performs in relation to the sound realisation, or whether the score is separable from its interpretation.

First conclusion

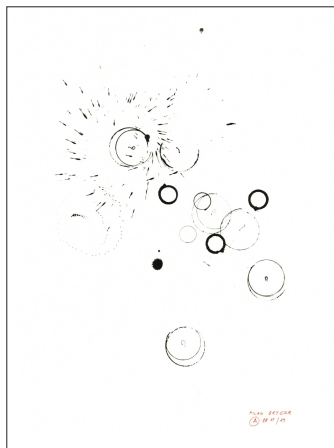
The richness of graphic scores lies in their capacity to embody complex artistic concepts, bridging the gap between sound and visual art. They require performers to engage not only with their musical intuition and training but also with their capacity for visual analysis and creative interpretation. This dual engagement fosters a deeper connection between the performer and the score, transforming the act of interpretation into a collaborative act of creation between composer, performer, and, in some cases, the audience. A good interpretation of a graphic score based on free improvisation can be compared with a bit of exaggeration to the principles of art or the so-called paths to deep knowledge, such as *shodō* (the way of writing, calligraphy), *sadō* (the way of tea), *jūdō* (the way of flexibility), *kyūdō* (the way of the bow, archery) etc. With this perhaps exaggerated or vague statement in mind, I would like to allow readers to better understand what I am trying to describe here by looking a bit more closely at the whole process of interpreting several graphic works, sharing the results and conclusions.

Case study 1

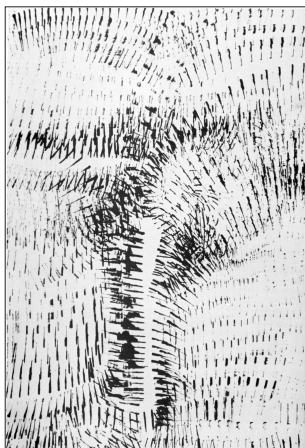
Type of interpretation: performative audio-visual interpretation of several Grygar's acoustic drawings and graphic scores by two dancers, two musicians and one light designer.

Author of the scores: Milan Grygar.

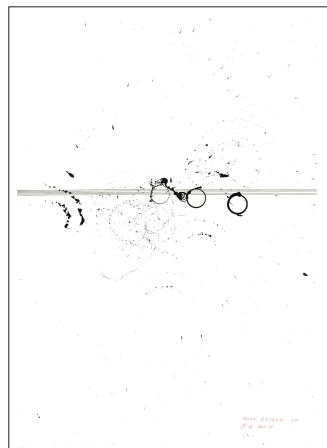
Graphic scores: ten pieces from the works entitled *Acoustic Drawings* and three *Floor Plan Scores*.



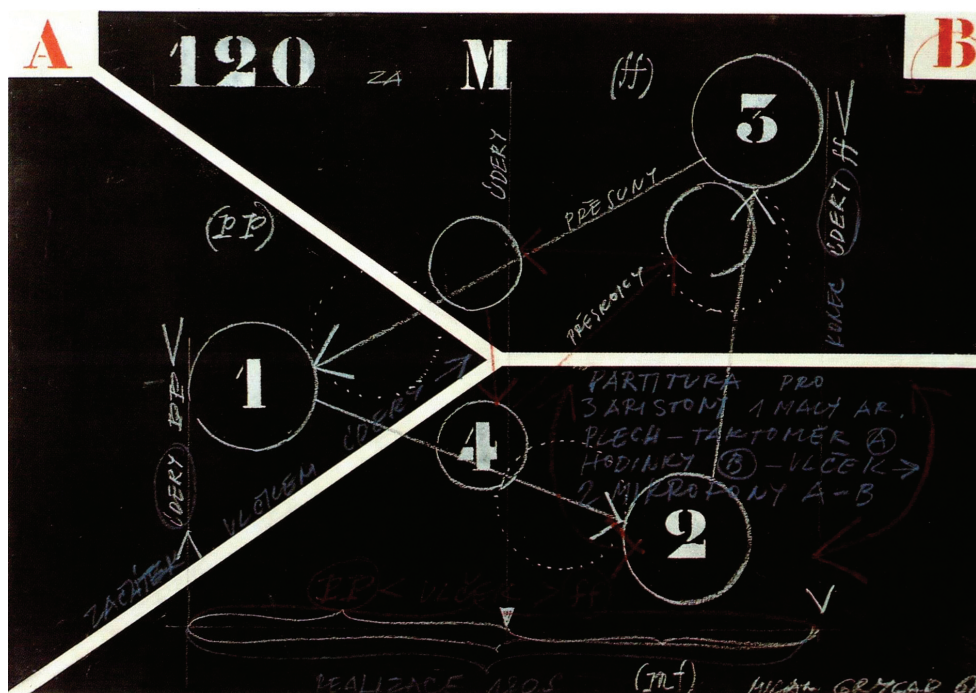
Ex. 1 Milan Grygar: Acoustic Drawing, 1966. In SMOLIK, Noemi; WEIBEL Peter (eds.). *Milan Grygar: Sound on Paper*. Karlsruhe: ZKM | Zentrum für Kunst und Medien, 2016. p. 57.



Ex. 2 Milan Grygar: Acoustic Drawing 2, 1965. Ibid, p. 41.



Ex. 3 Milan Grygar: Acoustic Drawing Ad, 1967. Ibid, p. 63.



Ex. 4 Milan Grygar: Black Score for 3 Ariston Mechanical Musical Boxes and 1 Small Ariston, 1968. Ibid, p. 72.

Description of the interpretative process:

Milan Grygar's *Acoustic Drawings* were a starting point, inspiration and aesthetic guide for all the participating artistic components (movement, music, light). The interpretation of the acoustic drawings was based on an attempt to transform the artistic principles used in these works into movement, music and light design. A common general principles were simplicity, sparsity, minimalism, clarity, precision and aesthetic intent. The principles used were repeated in the performances of individual *Acoustic Drawings*, but they always existed in a new context (environment) and in a new combination with other principles.

The *Floor Plan Scores* defined the spatial layout and movements of the performers on stage. All the performers – dancers, musicians and lighting designer – were present on the stage throughout the performance. Each of the three *Floor Plan Scores* was the inspiration for the compositional tasks that functioned as temporal and spatial landmarks in the composition of the performance.

The final performance, called *13 Aphorisms*, was based on the previous exploration of the principles used through improvisational techniques. The principles were common to all artistic components. After the initiation phase, which consisted of visiting an exhibition of his work and selecting the *Acoustic Drawings* finally used, we contacted Milan Grygar and asked him to be a tutor for this project and he agreed. Later we went to Žďár nad Sázavou for an intensive week-long residency where we worked on the basic structure and material (movement, music and lights) that would be used. The *Acoustic Drawings* were visibly projected onto a projection during this phase and formed part of the lighting design. The result was presented to several dancers and sound artists, including Milan Grygar, to get serious feedback and we modified the final design according to some of the suggestions.¹²

Realisation and conclusion:

The premiere of *13 Aphorisms* took place on 16 November 2016 at the National Gallery in the presence of Milan Grygar and the first reprise at the same venue a month later. We all (the performers and Milan Grygar) agreed that the reprise was much better because we were more confident in our performance. Milan Grygar was obviously happy with it. Although using *Acoustic Drawings* in a similar way as they were graphic scores we realised that for the artistic output was not important if the author originally had or not the aim the *Acoustic Drawings* would be used as graphic scores.¹³ Later on we realised we were not the first one who did so. MoEns ensemble for example did the same. Question to be examined more deeply: is it important if the original work was (not) intended as graphic score to be interpreted by musical or performative means? Whether it is important or not, in order to satisfy both the artist and ourselves as interpreters, we had to spend

12 Excerpt from the live performance (video): <https://youtu.be/-LTFZheuzK8>.

13 *Acoustic Drawings* were not intended as graphic scores; they are rather intermedia images, 2D images that latently contain sound because they were created using sound toys (whistling wolf, spun gear wheels from large clocks, mechanical chicken or frog, etc.). I think that sound is present in a hidden form in most of Milan Grygar's drawings, undoubtedly then in all his *Acoustic Drawings*, graphic scores, and some picture-scores.

quite a lot of time in the so-called research phase, studying the work of Milan Grygar, trying to understand the author's intention of using the individual parts of each of the drawings/compositions and also analyzing the context of the creation of his works with regard to the local and general development of this specific art form. It goes without saying that some of Milan Grygar's works are characterized by a combination of image, space and sound, the significance of which Grygar has elevated to another dimension since the 1960s in order to create a crowded space with a two-dimensional image and shape the overall meaning and purpose of the work.

An important aspect of Grygar's work is the mechanism of controlled chance. In his *Acoustic Drawings*, Grygar lets mechanical chickens trace random paths on a sheet of paper with all the sound that belongs to it. This creates a spatial record and specific rhythmization of the moment. We "translated" this mechanism into dance and musical use as a principle of improvisational procedures. The most important aspect of improvisation is the presence, immediacy, and spontaneous reactivity of the performer, which are invaluable qualities for live art. Through improvisation, dance/music interpreters develop their expressive vocabulary and are simultaneously invited to conscious collaboration with "this moment" where everything plays its role – other co-performers dancers, musicians, lighting space, or the presence and tuning of the audience.

When examining the collection of *Acoustic Drawings* and *Floor Plan Scores*, one is forced to engage multiple senses at once, resulting in a much more tangible experience. This principle goes hand in hand with our idea of interdisciplinary creation. Such creation is multi-layered, offers several ways to relate to the work, and has the power to express the theme in its full potential. For the viewer, such a work is graspable from several angles and thus better communicates its content through various associations.

Case study 2

Type of interpretation: musical interpretation of three graphic scores by Prague Improvisation Orchestra.¹⁴

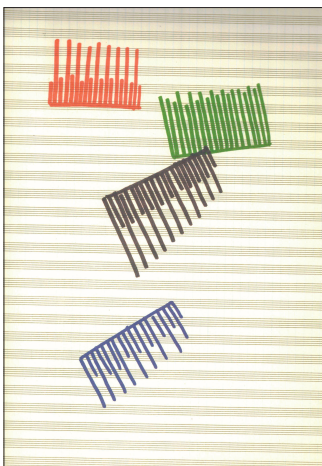
Author: Milan Grygar.

Graphic scores: *Color Score* (1972), *Sign Score* (1978), *Fragments and Fractions* (1982).

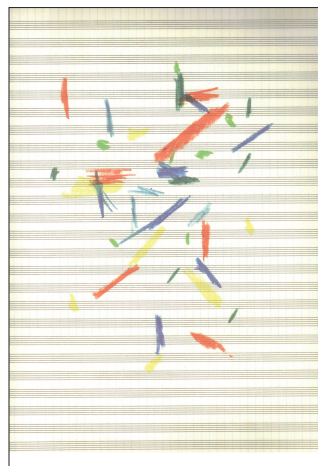
14 The Prague Improvisation Orchestra (PIO) was founded in 2012 by George Cremaschi and Petr Vrba. PIO is an electroacoustic ensemble focused on the interpretation of graphic scores by Czech and Slovak composers and the so-called New York School associated around John Cage (Earl Brown, Christian Wolf, etc.). PIO also reinterprets the works of visionary composers of radical American free jazz, such as Sun Ra, Charles Mingus, Anthony Braxton, etc. In addition to these two important themes, PIO works with many forms of improvisational techniques and also interprets new works composed for the ensemble by PIO members. More informations, including audio, video, photos, can be found here: <https://www.georgecremaschi.com/pio.html>.



Ex. 5 Milan Grygar: Color Score, 1972. In GRYGAR, Milan. *Barevná partitura*. Author's print. Prague: Milan Grygar, 2009. Numbered and signed by the artist.



Ex. 6 Milan Grygar: Sign Score, 1978. In GRYGAR, Milan. *Znaková partitura*. Author's print. Prague: Milan Grygar, 2009. Numbered and signed by the artist.



Ex. 7 Milan Grygar: Fragments and Fractions, 1982. In GRYGAR, Milan. *Útržky a zlomky*. Author's print. Prague: Milan Grygar, 2009. Numbered and signed by the artist.

Description of the interpretative proces:

After previous projects where we collaborated with Milan Grygar, the founders of the Prague Improvisation Orchestra, George Cremaschi and I, received a gift and a task in one from the author. Based on his satisfaction with our previous work together, he gave us three of his scores (*Color*, *Sign*, *Fragments and Fractions*) and asked us to interpret them in our own way. No further instructions. George and I had various discussions between us, and we also asked the author himself, but he tended to leave it more up to us. After a few months we came to a conclusion about the instructions for the other members of the orchestra and they were as follows.

- a) The concert will be 64 minutes exactly, so stopwatch or timer is necessary. There are three compositions, we will be playing all three pieces simultaneously, each person will choose their own structure/sequence of events in the moment.
- b) Each person will get one page of each piece, so three pages in total.
- c) Piece 1 (*Color Score*) there are 32 lines per page, you play each line around one minute, with maximum of one minute silence before next line. The idea is that you should play through all 32 lines. Instruments that don't normally sustain need some ways to do that: e-bow for guitar, for example, and bow for vibraphone etc. Silences can be added, meaning for example you could play five bars in a row, followed by three minutes silence and then two minutes "solo" of Piece 3...
- d) Piece 2 (*Sign Score*) has from four to seven different figures on each page, each figure gets played alone at different points wherever you want in the piece, take up to one minute to play each, sort of small solos.

- e) Piece 3 (*Fragments and Fractions*) is played once as a solo by each person whenever they choose, up to two minutes.
- f) Each person will play around 40 minutes, of course people can play less if they want. It doesn't need to be rigid in terms of time-keeping, but close enough. So one min = 60 sec or less.

An example how to interpret (but find your own):

Piece 1: How many colored lines in each bar would indicate how many notes or how complex a sound you would play and the actual color could affect the "coldness" or "hotness" of your sound. Maybe the orange and red is slightly louder or harsher, yellow and purple in the middle, blue and green cooler and more quiet. Since there are no accidentals (sharps/flats) playing it as written will get really limited, but as you wish. The idea is mainly to have some sort of continuous, non-expressive sound happening for each bar, with each bar being different somehow.

And then pieces 2 and 3 should be more dynamic, where the "expression" happens.¹⁵

Realisation and conclusion:

We first presented this programme on 21 March 2018 at the Slovak National Gallery in Bratislava. The performance was fine, but we were not completely satisfied with the result, however, for us it was more of a general rehearsal, because we did not have the opportunity to perform the program with the whole ensemble before. Milan Grygar was then personally present at the premiere itself, which took place on 11 May 2018 in Prague, and surprisingly he was again very satisfied. Milan Grygar himself said that the Prague Improvisation Orchestra's performance was the first one he was satisfied with in a long time, just as he had previously expressed his satisfaction with the performance of the *13 Aphorisms*.¹⁶ Since Petr Kofroň and his ensemble, Agon Orchestra, have recorded and published some of the realizations and interpretations of the graphic scores in book form, with an accompanying CD, we have a rather nice opportunity to subject his interpretive approach to critical examination. Kofroň's viewpoint is that it is possible, and sometimes directly appropriate, to transpose a graphic score into a classical notational system.¹⁷ I agree that this is possible for scores that are more or less just elaborations of the classical notational system and are "only" enriched with unconventional graphic elements, and as a result are relatively closed works that do not offer a large number of interpretative realizations (e.g. *Styx* by Anestis Logothetis). For graphic scores that are genuinely open works – such as Grygar's scores, Cornelius Cardew's *Treatise*, and others – translating them into classical notation reduces their interpretive possibilities to

15 Excerpt from the live performance (audio): <https://youtu.be/JKVCnzoHS-I>.

16 This can also be confirmed by Jozef Cseres who also witnessed the premiere.

17 KOFRON, Petr; SMOLKA, Martin. *Grafické partitury a koncepty*. Olomouc: Votobia, 1996, p. 9.

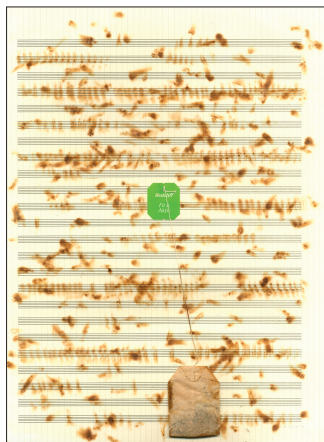
a single code. This approach diminishes the rich multiplicity inherent in the original abstract graphic score and risks misrepresenting the composer's intended openness.¹⁸

Case study 3

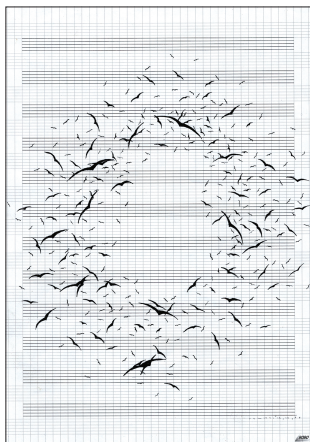
Type of interpretation: audio-visual interpretation of five graphic scores by LyrArkes-tra+.¹⁹

Author: Jan Steklík.²⁰

Graphic scores: two from the *Burned Scores*, one from the *Bird Scores*, two from the *Grass Scores*.



Ex. 8 Jan Steklík: Tea Score, after 2000. CSERES, Jozef; PETIŠKOVÁ, Terezie. *Steklík*. Brno: Host, 2022. p. 161.



Ex. 9 Jan Steklík: Bird Score, 2015. *Ibid*, p. 159.



Ex. 10 Jan Steklík: *On an Overgrown Path*, 2014. *Ibid*, p. 162.

Description of the interpretative proces:

Since Jan Steklík passed away in 2017, we were unable to discuss the works directly with him. However, since a new monograph by Jozef Cseres and Terezie Petišková, both living in Brno, was published, it was easy to discuss the context of the works.²¹ But we did this only after a few months of study within the ensemble at our regular rehearsals. We first

¹⁸ Milan Grygar expressed himself in a similar vein in a personal interview.

¹⁹ LyrArkestra+ is audiovisual ensemble of six electronic musicians and three visual artists founded by Petr Vrba in 2022 with specific aim to interpret graphic scores of mostly Czech and Slovak authors (Milan Adamčík, Jan Steklík, Jan Zuziak etc.)

²⁰ Jan Steklík (1938–2017) was an instinctive drawer and a prominent figure of the Czech visual culture of the latter half of the 20th century. His work is typical for its idiosyncratic sensitivity and poetics.

²¹ CSERES, Jozef; PETIŠKOVÁ, Terezie. *Steklík*. Brno: Host, 2022.

realised that Steklík's graphic scores are usually not stand-alone works, but are a kind of family grouped around a theme; for example, there are many scores with titles like *Grass*, *Bird*, *Burned*, etc. We have chosen two of the families *Grass* and *Burned* and added one score, *Bird*, in the middle of the programme. We made the decision that the audio and visual parts would work separately, but on the same scores. We also decided to divide the sound part, which is made up of six electronic musicians, into pairs, and these three pairs came up with suggestions for the interpretation and were sort of the leaders of the interpretation process. During the process of rehearsing, adjusting and changing the ways of interpretation, we came to some interpretative conclusions. Jan Steklík was also a jazz fan and audiophile, so some parts are clearly intended for musical interpretation, even if this was not clearly evident at first glance, suggesting a more abstract reading (e.g. in the case of the *Burned Score*, closer examination revealed that the burned tracks were performed in a kind of piano format, with clearly visible lines for bass/rhythm and melodies, even arpeggios, indicated on other lines). Since the selected scores often contain everyday objects (tea bags, cigarette butts) and covertly correspond to the process of creation (burnt parts, birds flying), we also took into account the environment of creation. It was a very imaginative work, for example with the *Burned Scores* we imagined the author sitting in his room with the window open, smoking, drinking tea and creating a score. This led us to use field recordings of ambient sounds that imaginatively reached the author's ears through the open window, the sound of burning paper, etc.

Within the *Grass Scores* family is one score called *On an Overgrown Path* which contains a clear classically notated part. Thanks to the work of our colleagues from the musicology department was confirmed that it was part of Leoš Janáček's score which actually come from Janáček's collection *On an Overgrown Path*, specifically that it is the last page of the song *The Madonna of Frýdek*. This led us to create samples from this piece, which were played by two of the interpreters during the performance of this graphic score. For each piece, we decided on the length purely based on the dramaturgy of the whole program. The total length was around one hour and included silent parts where only the visual part of the group performed their interpretation. In most parts we performed in parallel.²²

Realisation and conclusion:

The key performance of this programme in its final form, which included multiple projections in the entire hall (on all walls and the ceiling) of the House of the Lords of Kunštát in Brno, was preceded by several smaller performances in various cities in the Czech Republic (Pardubice and Prague). The Brno performance on 21 April 2023 was exceptional not only because of its relatively maximalist execution, or the introductory word of one of the authors of Steklík's monograph, Jozef Cseres, but also because of the presence of Jan Steklík's widow and friends from his artistic circle, as well as the display of the originals of the interpreted graphic scores themselves at the venue. As the excerpt above shows, the hall was completely filled, especially with art school students. Consi-

22 Excerpt from the live performance (video): <https://youtu.be/0ApS1Tnvj8s>.

dering the presence of Mrs. Marie Steklíková and other great connoisseurs of his work, including the two authors of the aforementioned monograph, our entire ensemble was quite nervous. However, the emotionally tinged words of praise and satisfaction from basically everyone mentioned above and the huge applause from which it was obvious that our performance appealed to a generation of students, we can hopefully consider our performance a success. For us, this led to several conclusions. Intensive study and analysis of not only the work itself, but also the context of its creation were crucial to a successful performance. A sensitive reinterpretation even on a visual level is possible and for us it confirmed the words of another important author of graphic scores, Milan Adamčíak, who understood the score of the piece also as an independent work of art. Graphic sheets with musical notation thus also become a carrier of artistic information that deserves its own level of interpretation.

A new taxonomy proposal

In regard of the taxonomies the challenges of understanding and classifying graphic scores are further complicated by their theoretical implications. The diverse approaches to taxonomy, as discussed by Karkoschka, Inglis, Gieseler, Murin, Adamčíak and many others, reflect not just the variety of graphic scores but also the evolving nature of music theory and aesthetics. These classifications, while attempting to provide a structured understanding of graphic scores, also highlight the limitations of existing musicological frameworks to fully encapsulate the breadth of experimental music notation. As noted earlier, the discussion of these taxonomies demonstrates the need for a nuanced understanding that takes into account the fullest possible context of (the creation of) the score: the author, the score, the interpreter, the interpretation process, and the audience or listener. The following version of the new taxonomy, which categorizes scores based on their function in relation to sound realization, the intent of the composer, and the nature of the features used, offers a more holistic framework for understanding and analyzing graphic scores. This version, however, is more in the testing phase and can more appropriately be described as a working version that invites the kind reader to subject it to critical analysis and further discussion.

Proposed new taxonomy of scores:

A/ According to the function it serves in relation to sound realization:

1. Fixative:

a/ it fixes the concept of sound;

b/ it fixes the sound itself;

2. Memorization: preserves the concept of sound in a memory medium with the aim of its repeated sound reconstruction and distribution;

3. Transformational:

a/ transforms the concept of sound from conceptual to graphic or sound form;

b/ transforms visual appearance or structure into graphic or sound form;

4. Semantic: translates the concept of sound into a sign;

B/ According to the nature of the author's intention:

1. Intentional;
2. Unintentional;

C/ According to the nature of the signs used:

1. Musical notation;
2. Lettrist schema;
3. Numerical schema;
4. Graphic schema;
5. Object or image association;
6. Event association;
7. Situational association;
8. Technical algorithms.

In Western music, classical notation is a relatively stable framework that functions as a communicational system that has evolved over a thousand years. It has its own rules, and the set of codes used is, I think, fairly closed. Musical notation is a code; it's the amount of information condensed into it. It directs and constrains the performer – in terms of time, choice of material, interaction with other musicians and the audience, and also deprives him of the specificity of improvised music (unless, of course, it is part of the score). Graphic notation, is inherently variable, a dynamic system whose symbolic basis is open. One could say that it is an infinite computational system that can easily adapt to its environment. It does not aspire to be a superpower; on the contrary, it seems to be constantly rebuilding its local identity in the face of a changing surrounding context. As we could see clearly, for example, in case of Steklík's scores. Graphic scores can create space for the engagement of other senses, for reactions to unimagined circumstances, for unforeseen psychoacoustic phenomena, new material arrangements etc.

Conclusions

As far as the process of interpretation is concerned, it is appropriate to begin by analysing the score – to discover its logic, to understand the coding system and to find out what is firmly embedded in it. I also consider it helpful, if possible, to consult the composer's intention. The examples given earlier show that the more we move into the realm of abstract graphic scores, the more free improvisation as a *modus operandi* plays a crucial role. But that doesn't mean that I can do whatever I want and that I can, so to speak, deceive my body and just freely improvise, in other words, play anything. No, I think that it is always necessary to immerse oneself in a work, to analyse it, to study it from every possible angle, to spend hours and hours with the work, and only after such quite intensive work does the relevant material begin to emerge, emerging during free improvisation,

but in relation to the graphic score. The performer's role in realizing graphic scores is central to the aesthetic experience these works offer. Performers become interpreters, collaborators, and co-creators, navigating the space between the score's visual cues and its sonic and performative possibilities. This active engagement requires a versatility and openness to experimentation that transcends traditional performance practices. Moreover, the audience's engagement with these works is transforming, as the realization of graphic scores often contains elements of unpredictability and variability. This transformation encourages audiences to become more active and reflective listeners.

As a performer, I can rely on my experience and hope that the magic of the previously unconscious, but at each moment created (using free improvisation techniques) will work adequately. As a performer who does not want to fix my approach any more than is necessary, or rather appropriate, I will use only certain clues, and insert a specific time structure always given and adequate to one given player, and one general (and partly variable) for the whole ensemble, so as to ensure the psychophysical focus/connection of the whole ensemble. This, for some, almost magical act is, in my opinion, what the graphic score offers, i.e. an open work that, although it may show similarities in interpretation in the case of some particular pieces, in most cases it does not.²³ While the ambiguity of graphic scores is indeed a source of creative freedom, it also raises questions about the possibility of "adequate" interpretation. Can an interpretation be considered good or bad, successful or unsuccessful? The answer lies in a nuanced understanding that in the case of graphic scores, interpretation is less about adherence to a predetermined precision and more about creative engagement with the visual and conceptual cues of the score.²⁴

Perhaps we could conclude this meditation on interpretation and attempts to adequately taxonomize graphic scores with a reminder of anti-essentialist approaches. Not a definition, but a questioning of existing concepts. How to use the concept of score in the right context? Exploring the conditions for correct use of existing concepts. This is perhaps more important than trying to find an ideal taxonomy that can encompass all conceivable, or at least all existing, works from the plethora of works that can be described as graphic scores.

Just as this article begins with a quote, I would like to end it in a similar way and quote Susan Sontag:

23 For example, Virginia Anderson discusses the sound identity across various performances of Earl Brown's *Four Systems*, suggesting that certain graphical scores carry inherent sound qualities identifiable in their interpretations. ANDERSON, Virginia. *The Beginning of Happiness: Approaching Scores in Graphic and Text Notation*. In de ASSIS, Paulo; BROOKS, William; COESSENS, Kathleen (eds). *Sound and Score: Essays on Sound, Score and Notation*, Leuven: Leuven University Press, 2013. pp. 130–142.

24 In the Czech context, two dissertations have recently been written on a number of aspects of the world of notated and improvised music including interpretation, both of which shed light on a number of important elements. Given the main topic and the length of my paper, however, I cannot adequately reproduce them here and therefore recommend anyone interested in these topics to consult these works. See the bibliography.

“What is important now is to recover our senses. We must learn to see more, to hear more, to feel more. Our task is not to find the maximum amount of content in a work of art, much less to squeeze more content out of the work than is already there. Our task is to cut back content so that we can see the thing at all. The aim of all commentary on art now should be to make works of art-and, by analogy, our own experience-more, rather than less, real to us. The function of criticism should be to show how it is what it is, even that it is what it is, rather than to show what it means.”²⁵

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25 SONTAG, Susan. *Against interpretation and other essays*. New York: Anchor Book Doubleday, 1990. p. 14.



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