

The use of visual scores in Live Audiovisual Performance

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Abstract

The text will focus on the connection between moving image and music to what concerns the possibilities of presenting composition scores as part of the creative process of live audiovisual performance in a way that emphasizes its improvisation and collaborative aspects. Scores are documents which preserve the ephemeral quality of the event and simultaneously makes possible its study and construction of its memory. How can score composition convey the improvisation and include the performer? Graphic scores in composition for music has been doing that since the 1950s through the work of several composers. We take as example the graphic score titled Treatise composed by Cornelius Cardew.

As we understand today, scores are resultant from the interexchange between the arts. Scores, as representation of a composition to be performed, allow simultaneously organized improvisation and collaborative energies to come together in ways that reinforce the creative process.

Keywords:

Liveness, Performer, Score, Audiovisual, Improvisation.

Introduction

Live audiovisual performance defines a group of practices that require digital and analogical technology as mediation to express aesthetically a dialogue between sound and image. In this exchange, presence and context are of utmost importance. The creative potential in the combination with other arts and with other knowledge areas, opens live audiovisual performance to ceaseless evolution that on one hand allows the ongoing appear of new expressions and, on the other hand, leaves theoretical discourse at hands with this instability. To this end, the ephemerality of the practices constitutes a difficulty to its study and theoretical reflection. Contemporary artists almost exclusively document their work through video, which reflects the result but doesn't extend and expand conceptually their work. Composition scores, as documents produced across the performing arts, not only express the performance separately from its result as an event, as also opens to the possible multiple

results to include improvisational and collaborative practices.

The graphic score at the intersection between sound and image

The score is autonomous from the performances, interpretations and variations it relates to. As an autonomous document, a score is not necessarily translated into a performance. To composer Cornelius Cardew, "written compositions are fired off into the future; even if never performed, the writing remains as a point of reference." (Cardew 1971). Also, scores cannot exist in place, or as replacement, of a performance nor is a translation of a performance into a document. Graphic scores, as development from the intermedia relationships established during the 1950s, from classical music scores, use visual elements instead of musical symbols, to constitute a language that conveys instructions to performers.

In the history of visual arts, several artists, such as Kandinsky and Paul Klee, have translated music into painting and abstract film. More specifically, in the history of the moving image, sound has been part of film exhibition since its beginnings and cue sheets for musicians to accompany films emerged once cinema started to ascend towards a successful industry. The suggested musical accompaniment, as the one included in the cue sheet for *Frankenstein* (1910), produced by the Edison Company, had the structure organized by dividing the length of the film in sections and for each section a different music was suggested. Although indications are given, cue sheets for a film permitted to the musician to improvise (Larsen 2007, p.27) and gradually became more elaborate to include a wide range of compositions and present possible variations. Anthologies then appeared. These contained original compositions organized by moods, to be played by different instruments, as is example the *Motion Picture Moods for Pianists and Organists* (1924) by Erno Rapée (Larsen 2007, p.30). Further developments, allowed composers to make specific works for films which would include, besides music, other sounds composed with specific functions, as for example sound to accompany the climbing of a stair. In this case, music is adapted to the movement of the character (Motte-Haber 2011, p.120). In moving image, as in music, the

function of the composer became detached from the function of the instrumentalist.

For the film *Entr'acte* (1924) by René Clair, Eric Satie composed a score in a similar way, by dividing the film in sections. Visually, the film is constituted by a series of apparently incoherently related scenes that vary from dancing movements of a ballerina captured from below, to two men playing chess on a roof top and a series of boxing movements, among others. The musical composition brings cohesion to the sequence of images. It also brings cohesion between the film and the whole event where it was included. *Entr'acte* was produced to be exhibited between acts of the a Dada theatre play titled *Relâche*, produced by Ballets Suédois, premiered in 1924, in Paris. This work is a fine example of combination of the arts, both ephemeral and as document.

On a different direction, the visual arts have been a great contribution to the changes within the musical composition. Especially, during the period of 1950s and onwards, as reflection upon new ways of perceiving the world, composers as John Cage, Morton Feldman, Iannis Xenakis and Cornelius Cardew, among many others, expressed musically new theories, scientific discoveries and social concerns. In all the above cases, new ways of composing are related to the inclusion of visual elements and materials with the aim to convey different instructions and create a disruption with the formality of the classic notations systems. In formal composition, actions, movement, expressions, etc., can only be transmitted to the players as verbal instructions, "In musical graphics, the expressive qualities that in cases of music written in traditional staff notation can be experienced only during the performance can emanate directly from the visual effect" (Larsen 2007, p.153). Other practices, besides visual arts, affected the way we define, in contemporary terms, composing, to include happenings, performances and other moments and art. These time based artistic practices became crucial in the inclusion of movement and actions as instructions given by the composer to the instrumentalists.

The changes occurred in the composition of scores changed several aspects of the relationship between the composer and the instrumentalist.

The central category of this form of notation is indeterminacy, through which the composer grants the performer improvisatory latitude (Schroder 2010, p.151).

The role of the composer is to organize sounds, says John Cage in the book *Silence* which contains many of his writings, and, in this frame

of thought about score composition, interpretation is open to active participation of the instrumentalist. The role of the instrumentalist, rather than translate the symbols into music, he or she should be able to interpret. The graphic score demands a personal approach to the event in particular, and to art and life in general. The instrumentalist, or the performer, has a part to say in the making of each new performance. As example, on the first of the *Variations* series by John Cage, the several transparencies that constitute the score are meant to be arranged differently for each performance by the interpreter. The indications from the composer, provided by the instructions contained in the score, are directed to the actions and not directly to the sounds possible to be produced. Both Cornelius Cardew and John Cage take silence as a musical element and both develop a musical-philosophical argument, one that would induce reflection and sequent action towards social change. The compositions created during Cornelius Cardew's short but intense life, were influenced by John Cage and La Monte Young among other experimental composers and also the work he developed for Stockhausen. Besides visually and textually very beautiful, his works convey challenging aspects of musical composition, such as the relationship between composition and improvisation, the role of the composer and the role of the player, the participation of the audience as listeners and, ultimately, the contribution of each individual to a social reflection.

Composing in live audiovisual performance

Live audiovisual performance deals with the moving image in a dialogical relationship with sound, which goes beyond the secondary role that image plays in a musical performance and the similar role sound plays in cinema. The event of live audiovisual performance is constituted, besides the live manipulation of sound and image, also by its performative aspect, that is, the dynamics of presence of both the artists-performers and the audience. While some events are the sole work of one performer, who create simultaneously sound and image, often it is a team of two or more artists. During the event, sound and image are often improvised, although in some cases the experience is result from a highly rehearsed event.

Within the contemporary performing arts, besides oral transmission, a document presents itself as the possibility to remain evidence of a

given event. In contemporary live audiovisual performance, the event is very often registered in video by the organization of the venue or by the artists and afterwards, edited and distributed online as a short video, allowing a glimpse into the event, especially on its resulting aspects (projected and diffused). A video is the evidence of the existence of a performance. Other documents exist, such as the festival's catalogues (synopsis and photographs) or the artist's website. Video documentation, text, photography and sound recordings are very important because they provide information for revisiting and studying the moment of the performance as an artistic momentary expression. The dissemination of these documents is often made through the social networks. These means of disseminating allow the work to reach a wide range of locations.

Scores are documents that exist across artistic performing arts, from music to dance, but are seldomly found in live audiovisual performance. One of the reasons is perhaps the improvisational aspect, reinforced by the digital technologies, so capable of producing ephemerality. Organizing improvisation in a documental format may be considered inappropriate or unnecessary. Another reason for the lack of scores in live audiovisual performance is perhaps the focus of the efforts between collaborators on the production of practical results rather than conceptual.

Annotations are made by solo artists and collaborators and serve a practical purpose of providing indications to performers during the event, in a similar way to cue sheets. These annotations are for personal or collective use and are not considered during the creative process as result. They are not transformed into documentation because it's not their intention to become document and to be read by the public. In an attempt to put into question the generality of what is the practice, in what ways composing and producing scores as documents for live audiovisual performance can respond to what defines the practice at its core? What can be apprehended from the combination between practices, in order to use composition as a way to enrich the live audiovisual performance through the creation of documents?

The graphic score titled *Treatise* (1963-67), the longest (193 pages long) and most elaborate composition work by the composer Cornelius Cardew, conceptually takes inspiration from the philosophical work of Wittgenstein, the *Tractatus Logico-Philosophicus*. As a visual work, it is situated between a piece of visual art, a work of prose (especially in length), a

philosophical argument and a music score. Cardew develops a series of notes of the development of the composition with its many readings as performances, that permits and insight into the process of making the score and the changes that occur when it is performed. Through them it is possible to understand the interest in creating a structure simultaneously open and complex.

Any number of musicians with any instruments can take part. Each musician plays from the score, reading it in terms of his individual instrument and inclination. A number of general decisions may be made in advance to hold the performance together, but an improvisatory character is essential to the piece. An appreciation or understanding of the piece in performance should grow in much the same way as the musicians' interpretation. Orientation is slow, in proportion to the length of the piece, but it is spontaneous, since no specific orientation is prescribed (Cardew 2006a, p.115).

We take *Treatise* as example to establish a series of potential relationships on the subjects of improvisation and collaboration, between music composition using graphic scores and contemporary live audiovisual performance.

Improvisation

Improvisation, in music, often moves away from formal traditional structures towards the informality that can be found broadly in Jazz. To Cardew, improvisation cannot be scored, although composition may include improvisation or, as Cardew calls it, "guided improvisation". Improvising skills are achieved through continuous play with other artists and individual training rather than rehearsals. "Improvisation is a language spontaneously developed among the players and between players and listeners" (Cardew 1971), it happens in the present and its essence is ephemeral.

In his compositions, Cardew develops a permanent questioning and answering approach to the inclusion of improvisation in to the score. This process is put in to action, firstly, by creating a disruption with previous musical formal structures and, secondly, through the creation of new and unique languages. By creating his own language, each work allows new possibilities to emerge. In this understanding of language, he establishes a parallel to Wittgenstein's parallel between language and a city and, "to imagine a language means to imagine a form of life" (Cardew 1971). While in *The Great Learning*, is inspired by Confucius's writings and uses text

as score, *Treatise* uses visual elements and numbers. Three basic elements are used to develop the score's graphical argument: numbers, elements from musical notation and shapes. Some of these elements exist in almost all pages of the score. The two lower staves, which are elements from classical musical notation, have the purpose to indicate we are present to a music related document but they may also be read as open to improvisation.

Some audiovisual performances are completely improvised, as most VJing events, mainly happening in clubs, and others accurately synchronize the sonic and the visual outcomes, as in some cases of live cinema events. Regardless if the event is VJing or live cinema, technology is similar to both and the main element that opens the possibilities for improvisation to happen. Especially in moving image, improvisation is possible by recurring to visual mixers and its digital translators as live editing software. Improvisation happens in a live event, that is, in a performative situation. What allows the event to be live is the presence of the performers and the audience. Highly improvisational events not only are live and performative as they are also real-time. To this end, artists may use sensors to capture information, from themselves and the audience, such as movement, luminance or heat, process it and transform into sound and image. A similar process may also result from live cameras that capture objects, the audience and the space. In both cases, the event becomes live and real-time, reinforcing the significance of presence and the improvisational feature through the technology.

Although results from improvisation remain alive in the minds of those present at a given performance (audience and artists), its shape disappears without evidence that may constitute historical proof of its existence. Recordings capture the aesthetic outcomes and describe the tools being used, but not the feeling of being present neither the context of the event, or its "natural context", that Cardew defines this way:

What is the importance of this natural context? The natural context provides a score which the players are unconsciously interpreting in their playing. Not a score that is explicitly articulated in the music and hence of no further interest to the listener as is generally the case in traditional music, but one that coexists inseparably with the music, standing side by side with it and sustaining it. (Cardew 1971)

The "natural context" refers to the place, time and conditions where the performance occurs. To be present is the only way to experience

fully the event and, in the cases of real-time, to participate in the construction of the results. In the recordings are always the image projected and the sound diffused that can be revisited but divorced from their context, which is part of the experience of being present. This need of presence is underlined when live cameras are used. The presence is transformed into result.

The classical models of composing don't reply to the dialogue between sound nor image, neither do the cue sheets, which come from the history of the moving image. Informal languages for composing (or organizing sound) take in consideration the particularities of the processes (the levels of improvisation, for example) as much as the instruments. When the instruments possible to use are more than the list of the known classic instruments and the results possible to make are as wide as the possibilities of feeling and listening, then informality is needed because it is flexible to comprehend emotional power as much as cultural and rational power. The development of new languages for composing, which include all the aspects and nuances of improvising with sound and image, are now necessary. The inclusion of the technological capacities, levels of participation of both the artists and the audience – between live and real-time – are essential and particular to composing.

Collaboration

Collaborations, identified as the joint effort of two or more artists, form nodes, points of intersection, which envisage a net of connections between artists with programmers, scientists, and others, forming the potential of intermediality. Since the development of live audiovisual performance has strong grounds on exchange of knowledge where it relies in order for developments to be visible, the dynamics created between those involved is relevant regarding different approaches to the practice. In VJing, the creation, selection and manipulation of the imagery are often result from the work of a single individual. There are indeed also many groups that work together in complex sets at the result of which can be found elaborate visual results. Live cinema is strongly grounded on collaborative processes. Some AV groups work together for many years. When the exchange between artists is longer, ways for sound and image to enter into dialogue become deeper, more dynamic and express complex narratives. Specific instruments may be developed or particular ways of performing. Amy Alexander, a visual artist and writer, reinforces this understanding:

A significant difference, however, is that the VJ's multilayered imagery is in most cases created by a solo performer rather than by the collaborative improvisation of an ensemble" (Alexander 2010, p.202).

Apparently, because live cinema is more collaborative and processual, it is also more receptive to the structures of composition. The score *Treatise*, although composed by a singular individual, has in consideration the diversity of the collective through the inclusion of a high degree of aleatoricity in the number of performers who will play it, in the instruments that can be used and also on the pages to be played. *Treatise* has been performed by jumping between pages and by selecting a number of pages to be performed. It has also been played with the use of many different instruments, from the classic orchestra to electronics. Observing *Treatise* we can conclude that a score can include not only improvisation as can also include a wide variety of individuals and their capacities. This diversity is crucial to the endless possibility in the resulting performances. A particularity of the performer is that he or she doesn't need to know how to read music in order to know how to play the score [1]. In an ideal situation, *Treatise*, which is a musical score, should be played by "musical innocents", that is, people without any musical education, so they don't play it with their cultural and educational background. Since the score is graphic, the ideal player would have a visual education.

My most rewarding experiences with Treatise [says Cardew] have come through people who by some fluke have (a) acquired a visual education, (b) escaped a musical education and (c) have nevertheless become musicians, ie play music to the full capacity of their beings. (Cardew, 1971).

The efforts of collaboration may be transferred to composition to explore a wide diversity of combination of media. This would expand the written format, which is a classic approach in our contemporaneity. Although most of the live audiovisual artists who make annotations restrain their scope to their practical use, some examples of scores for performance can be found and that demonstrate the great variety of processes and its relation results. The score for the performance *True Fictions* [2] by The Light Surgeon, presents a synchronized composition that performers must follow in order to produce the performed result. The score for the performance *To Be Given A Title After It's Performance* [3] by Naval Cassidy expresses guidance for improvisation. This is a score for

the artist to follow during the performance but that is possible to access to on the Internet. A third example, the score for the performance *Suspensão* [4] by Luis Duva, is available with instructions to whoever is interested in re-enacting the performance of the artist. The examples demonstrate variety but the resultant documents are still not artistic works by themselves, a feature that makes the chosen example, *Treatise*, interesting for its particularities and uniqueness.

Conclusion

Composition scores are documents at the end of a creative process of the construction of an event. The event, or events, interprets the score. Composing for the performing arts is broadly experimental, which means that it is also possible that the event is at the start of the process of composing. In addition to graphic scores, or in combination, we can find aural scores (Schroder 2010, p.154), based on the study and analysis of sound and its translation into score. This process has the performance, in its multiple ways to approach improvisation, is at the basis of the construction of a score. Resultant performances are derivations. Another way of notate is action notation, a score for movement, which translates and presents results as sound. Back to Cardew, and on the importance of composing,

To abandon notation is therefore a sacrifice; it deprives one of any system of formal guidelines leading you on into uncharted regions. On the other hand, the disadvantage of a traditional notation lies in its formality. Current experiments in mixed-media notations are an attempt to evade this empty formality. Over the past 15 years many special-purpose notation-systems have been devised with blurred areas in them that demand an improvised interpretation (Cardew 1971).

The potential in the intermedality is the possibility of infinite approaches to composing scores – as many as their possible applications. The text has opened to considerations of purpose and the role of composing graphically within the relationship between image and sound. Within this intermedality of approaches and applications, new ways [5] of understanding composition and to the creation of scores occur. These new approaches are occurring in the technological development. Software can be developed to be in itself the score, as is example IanniX [6] and some instruments can be considered scores as well, as is the case of Reactable [7]. Both these examples are used

for sound and image and result from the combination of the arts and technologies. In themselves, if we come to consider both IanniX and the Reactable as scores, they take the concept of composing from the registration in paper into new media and the role of the composer beyond the organizer of sounds to become the programmer and constructor of the device that originates the sound. Both the examples are receptive of levels of improvisation and open to collaborative performances.

In the history of cinema, as in music, the function of the composer was detached from the function of the instrumentalist. In contemporary live audiovisual performance the composer is a role open to definition: everyone is both composer and instrumentalist of their own compositions. The potential for composing lies in the contribution of new performative practices, such as with audiovisual, when appropriate, transform and retribute with new results.

Notes

1. This openness of music to uneducated artists is also found in the work of Iannis Xenakis.
2. The live audiovisual performance *True Fictions* by The Light Surgeons: http://www.lightsurgeons.com/art/true_fictions
3. The score by Naval Cassidy is accessible online: <http://navalcassidy.com/2011/04/18/to-be-given-a-title-after-its-performance>
4. The score for *Suspensão*, by Luis Duva: http://www.liveimages.com.br/www.liveimages.com.br/Susp_OK.html
5. Because of their novelty, some scores or systems of notation referred are questionable since they push beyond the limits of the definitions.
5. IanniX can be accessed and downloaded here: <http://www.iannix.org>.
6. The website of the Reactable: <http://www.reactable.com>.

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