
Musically based Media Art: Musical composition with a visual element

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Abstract

This paper is a statement regarding "Musically based Media Art". It is a musical composition which has a visual element and which mainly utilizes information science technology and acoustic technology. Thus this paper discusses the following four areas; the significance of incorporating visual elements in a musical composition, the significance of applying an interactive system using a computer for the musical composition, the significance of inserting video imagery as a visual element, and also the significance of creating pieces committed to the media. It is a subjective point of view but perhaps this paper will serve to evoke an arousal of appreciation of the relation between art and technology regarding contemporary art among the general public

Keywords

Media art, musical media art, the visual element of a musical composition, music theater, computer, interactive art, visual imagery, audio visual poetry

1. Purpose

"Musically based Media Art" should be unfamiliar terminology. This is understandably so. The reason being is that it was coined by me, the writer, to enable me to better describe my work. Several years ago I began referring to a particular genre within artistic music, which mainly utilizes acoustic and information science technologies, as "Musically based Media Art". The particular genre in question refers to musical works with visual elements.

Simply put, the purpose of this paper is to clarify the meaning of "Musically based Media Art". As the method for this, I shall explain the circumstances leading to the establishing of the genre I refer to as "Musically based Media Art". Therefore instead of just producing an answer outright, the emphasis has been placed on the presentation's components. Since the object of discussion is in fact the writer's own piece, the discussion will tend to be extremely subjective.

Subjectivity entails the exposure of the inner most thoughts of the writer, which usually are kept

hidden, thus bringing the reader and the writer closer together. In conclusion and as a goal, I would be very happy if this paper had the capacity of even slightly awakening an appreciation for the relationship between information technology and art also for contemporary art, among the general public.

2. What is Media Art?

It is clear that the coined phrase "Musically based Media Art" is based on the word "media art." The latter was the concept of a fine-arts domain, and in order to emphasize the nature of the musical composition or temporal art, it was combined with expression "musically based".

The term "media art" refers to works created by utilizing new forms of media, and especially the work which places the characteristic of new media at the center of its conception. Media its plural form becomes medium, a means or method of spreading information, a report, as well as communicating. Electricity and online media, such as the television, radio, video, computer, the Internet, are referred to

as new media where as signal fires, drums, town hall bells, newspapers, magazines and such are old media. Thus at the exhibition of media art, videos, computers, and their relative monitors, screens, and speakers, etc. really stand out. Nam-June Paik, Studio Azzuro, Fabrizio Plessi, etc have become well known creators of media art. However such media art has focused almost solely visual imagery.

3. What is "Musically based Media Art"?

Frankly, "Musically based Media Art" is the musical version of media art. It indicates those musical compositions which utilize new medium, and which set the characteristics of new media as the focal point of its conception. Therefore, during the presentation of a "Musically based Media Art", computers and image media are used abundantly, with importance placed on the visual element.

Where media art decidedly differs from "Musically based Media Art" is the length of time of a piece which is predetermined in the latter.

Where time of a work is predetermined, there is a clear beginning and a clear ending, which means that an "occurrence" is developed on a time-axis in the interim. In order to appreciate a media-art work defined as "Musically based Media Art" it is necessary to experience the full length of a particular piece, while media art work in the fine-arts domain such as exhibition work, has no restriction of time regarding time devoted to the experience of appreciating a piece, the length of time of the experience, beginning as well as the ending is solely determined by the observer.

4. Why is a visual element required?

It was during the mid 70s that I became interested music with a visual element. This was as a result of my having intensively focused on musical theater performances in Germany during my studies abroad. I mainly experienced works by Mauricio Kagel and Dieter Schnebel. Although they were clearly in the style of "contemporary music" in respect to the sound element, they were very enjoyable to listen to as well as to watch

Music theater is one genre of "contemporary music", and means a dramatic musical composition,

where dramatic elements turn into visual elements and are integrated into a musical composition. In musical theater, the narrative is thin and all is subordinate to music composition. The musical account of the dramatic element is carried out note for note according to the score.

Since Music Theater is created with and stirs a multitude of feelings, it offers the clue to the understanding of any domain of music, theater, dance, and fine arts, and can increase the saucer of conviction of the observer. For this reason, the audience's reaction to a public performance of "contemporary music" and the size of the actual audience in the theater are the main ways to gauge a performance. I myself created and performed a piece which was received positively in the 80s. A musical theater piece is itself a genre which breaks out of the cut off world of "contemporary music".

I discovered through my involvement in musical theater that only a few could appreciate music for its sound. Upon further investigation, cultures in which people appreciates music as just sound is extremely rare historically and is restricted to certain geographical areas. The only culture it pertains to is Western art music culture, the classical music since the 18th century. This special culture emerged with the bourgeoisie who come after the Occidental aristocrats, the upper class, and the exploitation of the colonies. Appreciation of music simply for the sound developed, although music had previously been connected throughout the ages and in many areas with ceremony, worship, prayer, religious service, dance, theater, epics, etc. One could suggest that somehow music theater is close to the essence of music.

Of course, the author's interest in music theater is not restricted to simply the for mentioned. Integrating a dramatic element as a visual element has great influence on the music structure itself.

Each sound in music has structural meaning. The meaning is not absolute but rather relative. For example, there are structural meanings, such as the feeling of strain, sense of stability, the feeling of urgency, and the feeling of freedom. The meaning of each sound changes variously, when the visual element at the time of pronunciation is added. At a

certain point, a new meaning is added to the established one, and at a certain point, this meaning itself may generate dislocation, amplify, decrease, or change.

Let's make an example of a 'C' note played softly on the piano, and let's now consider a scenario where the preceding or following or even simultaneous action has some bearing on the played note. If for instance the pianist raised his/her arm up high and proceeds to strike the keyboard with great force, the audience would naturally expect the note to ring out with equal force. However as in the scenario mentioned in the opening line of this paragraph, if the note is in fact softly played there arises a feeling of unexpectedness, a sense of evasiveness. Such a feeling can only be instigated with visual imagery.

In this case, the visual element affects the alluded meaning of the musical composition.

5. Why are computers required?

In a music theater, the visual element and timing is very important to the performance. However, visual performance is very restricted. If performance requires piano music then a piano must be made available. As in the same way a performance requiring a violin can not be played out without a violin. The easiest method for removing the restrictions of a visual element in a work is by separating the person in charge of the visual element and the performer.

5.1. Box

In the authors musical theater work 'Box' produced in 1984, the person performing the operation of lifting the box, and the person performing the operation of translating the performance into sound were 2 different people. Differing from usual ballet or dance is the operation of the performer to translate the performance into sound rather than to perform in accordance with the music. That is, a player looks at the timing which lifts a box, and how it should be raised, and reflects this in the performance (fig.1).

This relation between the performance and the sound is, however, I felt too arbitrary in this case. I

then began to consider how the very operation of lifting a box should be carried out and translating that into the performance.

I was able to achieve the desired affect by using a computer as an interactive system. The procedure went as follows.

- 1) Sound is recorded onto a computer in advance,
- 2) The sensor and switch which detect the movements of the performer are installed in advance,
- 3) Think of the live performer as a form of input into a computer through a sensor or a switch,
- 4) Sound is then generated from the computer as a result,
- 5) Hearing the sound, and responding to the sound, the performer then continues with the performance.



fig.1 A scene from 'Box'

5.2. Chatterbox

Chatterbox made in 1992 is shown as an example of music theater with the above-mentioned profile. This work is a kind of mono opera. The scenario is as follows, a woman conversing with her inner voice. Her inner voice is hidden within the boxes placed in front of her. She seeks answers from herself and then strains her ears to catch her inner voice which can be heard from the boxes as she lifts them (fig.2).

The inner voice is recorded on a computer in advance. If a box is lifted, the switch devised in the box turns on and serves as an indicator to the computer, and the voice recorded in advance is played. The repetition is performed as a dialog

composed of the woman's actual voice posing a question and the inner voice responding. Here, the operation of just lifting a box becomes a performance.



fig.A scene from 'Chatterbox'

6. Why is imagery required?

By using an interactive system, the width of the performance realm expands and the restrictions of the visual element are decreased. As for visual elements without restriction, nothing can exceed video imagery. The author came to take in a video image as visual element in his music theater works gradually starting around the middle of the 1990s. Since live video and computer graphics formed the visual element and were themselves new media, the author began to using the term Musically based Media Art. If a video image is used as a visual element, four advantages below are acquired.

- 1) Stage expression which is not bound by space and time restrictions is attained,
- 2) Existence of a prior work process (photography and recording) secures the free thinking,
- 3) Since the data itself has reversibility, change generated live is possible,
- 4) It is possible to treat the screen and the monitor on which the video imagery is project as expressional material.

6.1. Kagami

In the piece Kagami of 1996, the video image taken and edited in advance, captures the figure of the live performer and both are projected on the

screen on the stage. There are three cameras which photograph performer, the live performance then in turn aids in determining which image is projected

The infrared sensors are placed in the area surrounding the performer. Every time a player breaks the infrared stream with a body part, a musical instrument, or the whole body, the video image from a given camera changes, and causes the computer to emit sound (sound which has been created, recorded and edited and stocked as data in advance on the computer).

When the visual element (the motions of the performer and the video image of the performer, which changes at every motion, is reflected on the screen), and the audio element (musical instrument sound and computer sound) synchronize, they are emphasized mutually. While the performance having a few meanings emphasized with sound, the sound is less conspicuous than the emphasized gestures of the performer in close-up on video image.

6.2. Hi no Utsuwa (The Object of Mercy)

The capability of the personal computer during the days of 'Kagami' was limited and the cameras had to be interchangeable in order to design and create an interactive system. However since then the manipulation of pictures and a video image data has become easy. Thus enters 'Hi no Utsuwa' in 1999 as my attempt to work with this more flexible system.

For this work, the interactive system was prepared to carry out the generation and changing of computer sound and the computer video image (video image which was created, recorded and edited in advance and was saved as data to the computer) by the performance. On the stage, various sensors and switches were installed hidden from an audience's eyes. When a player performed various pantomimes on stage, a sensor reacted to the performance to make or to change the sound and video image. Thus, the meaning of player performance was emphasized by video image and sound, or their changes (fig. 3).



fig.3 A scene from 'Hi no Utsuwa'

6.3. 'Scar' and 'Dream of Naga'

In Kagami and Hi no Utsuwa, the computer input was operated by tapping on the sensor switch directly. On the other hand, in Scar of 2000, generation or change of computer sound and computer imagery was manipulated by the input of the musical instrument used in the performance. The generating of sound or a video image was controlled inside a computer based on the data from the live input generated by the performance of the musical instruments.

Although Dream of Naga in 2001 is a work with the same system, where the musical instrument's live sound interacts with computers in various ways it was a step forward compared to its predecessor.

7. What is Audio Visual Poetry?

When interactive 'Musically based Media Art' is actually performed, it produces a very exciting artistic atmosphere. When sound and a video imagery carry out and generate change caused by the performance or musical instrument's used in the performance, the audience can experience a continuity of expectation of what is going to happen next. On the other hand, the various results generated by each performance also means that it is difficult than to establish the art as a fixed work.

Then, in order to create a fixed relationship between sound and a video imagery, the author began to produce his work as fixed media, such as video, DVD, and CD-ROM. Thus the "audio visual

poem" so named by the author was born.

The audio visual poem 'Common Tragedies in Urban Life' of t 2000 is an abstract animation which uses geometric figure as a motif. Music is made by the technique of musique concrete using day-to-day sound as main materials. The structural meaning and musicality of the sounds are set as the centre of expression. However, since it is not direct expression, a gap arises between the pronounced sound and its interpretation. That gap is the charm on the expression. The meaning of the sounds influences the abstract video image expression, and adds meaning to the image there. The musicality of the sounds influences the movement and the changing of the video image, the adjustment of the speed, and adds new meanings and new images.

In the early stages of the creation of an audio visual poem, a video image and music are conceived simultaneously. For the author, both are parts of composition, and cannot be dissociated, although priority may be given to either on account of a procedure and it that element may be placed in advance of the other in the work process. Priority should be given to nothing but the temporal composition.

8. Why is a Visual Element Required Again?

I want you to consider the role of the visual element in relation to the musical structure once more.

When we listen to music, a understanding of music is made by the fulfillment of our predictions concerning the next sound based on our understanding at any given moment. However, since it is monotonous if predictions are always to be fulfilled, occasionally predictions need to be shattered. This is an ironclad rule for maintaining concentration.

Tonality in modern Western music has achieved a lot regarding predictability. The dynamics of the dominant progression of the tone determining the direction of the musical timing makes prediction of the sounds to follow easy. It then becomes difficult to listen to atonal music, because predicting the next note is difficult. When a piece is too difficult it may causes mental strain

from too much concentration.

With music with a visual element, people can rely on the visual element to offer predictions. For example, in a narrative in which the movement of a figure increases and reduces and a series of movements of that figure induces the prediction, it aids the audience with their concentration. Such visual prediction is easy compared with audio prediction. If the visual element and the audio element are interlocking, visual prediction becomes even with audio prediction. Therefore, even if only sound is heard, even if it is atonal music which is difficult to predict, if it is accompanied by a video image, it becomes easier to predict the transition of sound.

9. Conclusion and View of Future

The author encountered theater work in the mid-1970s, and got interested in music with a visual element. It was for the author the genre which broke out of the cut off world of "contemporary music". The visual element influences change to the musical structure and brings about the possibility of a new form of expression. However, restrictions when using live performance as a visual element became a problem. In order to solve the problem, I came to use the interactive system involving the use of a computer. The performance then came to increase the power of the expression of the visual element. However, there is nothing that excels a video image in visual expression and its freedom. Then, I came to make the art work where an interactive system works with video imagery not only sound. Such a work I named 'Musically based Media Art'. As an extension of this extension, I came to create pieces with a fixed relation between video imagery and sound which I then named "audio visual poetry." Visual elements influence audio elements, and give so much to predictability of atonal music, in which prediction is normally difficult, and an observer is forced to concentrate on the work, in order to read ahead in the performance.

Interactive systems are now very accessible due to the advancement of information science and technology, especially regarding video imagery which contains huge amounts of information which

can now be operated at high speed. My idea is to establish the domain of 'Musically based Media Art' which has greatly increased. Although it was not integrated into each of my works described in this paper, what is described is the restriction of width, actual creation stimulated not only by a system or a style but more with the interest regarding the contents of my work.

Though regrettably, in general with art using information science technology or acoustic technology, there is a tendency for the concern about the contents of a work to be treated with low regard from the audiences view point as well as from the point of view of the creator. The author is pushing the concept that this must not be right. The author wants to have this thought go forth and influence future works.