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Masahiro Miwa's “*Gesänge des Ostens*”: Intersection of Technology and Tradition

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Abstract

Masahiro Miwa was born in Tokyo in 1958. In 1978 he started his formal studies in composition at Universität der Künste Berlin followed by the studies at Robert-Schumann-Hochschule Düsseldorf after 1985, and he started creating computer music works in Germany. Commissioned by a leading Japanese pianist Aki Takahashi, Miwa composed “*Gesänge des Ostens*” in 1992 after moving back to Tokyo. It had been only ten years or so since the time the MIDI system was standardized world- wide and of course the artistic use of the MIDI was not so much introduced back then.

This piece is written for one pianist and two MIDI pianos: one for the pianist and the other for the MIDI signals to play music without a real pianist. The score is unusually written not with the grand staff but single staff and piano part itself is simplified to single line. The piano part is written not only for the real piano phrases but also used for triggering the MIDI signals by pressing certain keys. What triggered through this system is mainly the audio files of Japanese traditional folk vocal music. It is interesting to see that all the musical events happening during the performance are manipulated and merged musically in real-time. Miwa created the software to operate those events himself and what he intended to realize seems to be the same as what we do with technology regularly today except the pitch-to-midi conversion that was developed much after the period this piece was created. Here it is not a problem because the grand pianos are equipped with MIDI system to trigger events while playing real acoustic music.

Musically speaking, the Japanese pentatonic scales are mainly used for composing the piano part to match the traditional folk songs and Ravel's “*Le Tombeau de Couperin*” which is obviously influenced by the Orientalism of his time. The sense of mismatch created by juxtaposition of old traditional musical elements and the forefront technology gives this piece distinct characteristics that are different from other pieces composed in Japan during the same period of time.

This paper focuses on the investigation of the form and analysis of the piece in order to see how technology and tradition are intermingled to each other to create a new vision of music.

Introduction

Masahiro Miwa composed *Gesänge des Ostens* in 1992. It was a commission by Aki Takahashi, a leading Japanese pianist. Miwa composed a piece for two pianos and one pianist with sophisticated use of MIDI technology which was still new to Classical composers. It had been

only ten years passed since the time the MIDI technology was introduced. The application of this technology was not seriously considered by among Classical contemporary composers. As a matter of fact MIDI system which is used for sequencing softwares are thought to be not for Classical music but good for making popular music even now. But this piece by Miwa shows as a very good example of use of MIDI in contemporary music making. Through investigating his musical back ground, the situation around the time he composed the piece and the analysis of the piece itself, I would like to show how he successfully realize his ideas using MIDI technology.

1. Masahiro Miwa's Interests in Arts and Sciences: Biography and Early Thoughts

Masahiro Miwa was born in Tokyo in 1958. As the President of IAMAS,¹ the Institute of Advanced Media Arts and Sciences, he has now become a big figure as a composer especially specializing in music technology, but it took him a long time to discover what he should pursue as a composer.

In 1978 he started studies of composition with Isang Yun in Berlin, and later moved to Robert Schumann University in 1985 to study with Gunther Becker. He has been composing music with computer technology since late 1980s. Different from most of Japanese composers of his age, although he took lessons in piano until the third year of elementary school, he never had special musical education until he became a high school student.

He became interested in progressive rock bands such as King Crimson, Tangerine Dream, Yes, and ELP and started to get involved in a rock band playing keyboards. When the trend went down world wide, he was so disappointed that he could not accept the fact. He started to think that the reason that he could not compose a nice piece of music in this genre was that he had not had knowledge of music theory such as harmony and counterpoint. Eventually he started taking private lessons in such areas feeling a little bitterness of inferiority. He recalls his memory that a part of the reasons why he wanted to take lessons in academic music theory was that, influenced by ELP's records such as *Les Tableaux d' une Exposition*, it was the time that Miwa felt that popular music was very close to Classical music. When he read the interview article of Keith Emerson saying that Bartok had been one of the most influential musicians on his music, Miwa became more influenced by Classical Modern-Contemporary music. And Miwa recalls that he was interested in contemporary music because it did not depend on commercialism but looked to be aimed to make the best artistic works at its extremity.²

It is apparent that Miwa did not go through an ordinary path way that most of Classical composers might have had before focussing on their studies in composition. While many of Classical composers takes technologies into their compositions later in their careers, through looking at his musical back ground, we can see Miwa's life was opposite. He took Western musical tradition into newly developed musical technology that he had been already familiar with as a keyboardist in a band.³ Because of this, he did not seem to have any hesitation or difficulties utilizing at that time newly developed MIDI technology or later further developed Max. In fact, in order to express his own musical language, he needed technology. It was the key to open a door to free his musical thinking.

¹ http://www.iamas.ac.jp/faculty/masahiro_miwa/

² MIWA Masahiro, Music Theory of Computer Age, p.166-7

³ MIWA Masahiro, Music Theory of Computer Age, p.175-9

Through his studies of Classical music, he gradually improved careful listening, not only the ability of pitch recognition but also the ability of appreciating timbral and acoustical differences of sounds. Moreover, he became aware of the “tricks,” as he names it, that made music as real form of art.

His ability to listen to music to the deepest level and to analyze music made him eventually find the right direction that led to where he is today. Especially, listening ability that he can analyze every detail that comprise a piece of music was essential. What mattered to him was the ears that he was able to listen to the smallest details as well as the whole listening experience at the same time. It was not only the ability of perfect pitch and rhythmic recognition, but something like the holistic listening if one may say.

Miwa also finds value in the procedures that a composer choose to make music with. He says “music cannot be expressed in every detail by writing on music paper. What is written on the paper is not perfect by itself. Once we can understand what is written there, we can find a huge landscape of music behind it. And the key to understanding them must be found in the work itself.”

2. Arts meet Sciences: Emotion and Intelligence

As Miwa studied and discovered what had done in Classical music by Beethoven, Mozart or Bartok, for example, and their intricate manipulations in harmonies, rhythms and phrases, he had come to know that good composers use some kind of rules and structures in order to compose music as an art of sound. Later he says “what is important for composers is the ability of recognizing the structure of every level of music, relations between minimum and maximum of musical events, relations between notes in detail.” And finally he discovered that making sound that can be captured as an entity of sound may be called “composition” and finding ways to making it could be called as “theory of music.”

One direct cause for Miwa pursuing music was musical experience of listening to the recorded music by radio broadcasts and playing vinyl records as a teenager. He recalls that he repeatedly listen to them until he could memorize every detail of the music such as transformations of sound diffusion. But later he asked to himself recalling those memories, “was I really listening to the music? Can I call it music?” Surprisingly, he says he never imagined to compose music that could be listened to by some kind of playback devices. “I did not know how I could confront recorded music as a composer myself.” Above reasons he has stuck with the form of live performance of music.

Miwa became one of Japanese pioneers of making forefront mixed music using realtime technologies. He has composed such pieces since the dawn of this kind of technology and his pieces have been regarded as some of the most important works of Japanese contemporary music in this kind.

3. Creating “Gesänge des Ostens” Using MIDI Technology

Miwa started learning computer music by himself around 1985 when he was still in Germany. In 1992, Miwa composed “Gesänge des Ostens” fully using MIDI technology. MIDI was basically standardized in Japan by AMEI (Association of Musical Electronics Industry), and MMA (MIDI Manufacturers Association) and with leadership by Roland Co., a world leading company of electronic music industry. That may be a part of the reasons why most of contemporary music composers of Japan considered MIDI as a device for popular music and

they did not take this technology seriously for their compositions. But Miwa was different. He fully utilized the MIDI technology to realize his musical ideas by recording and playing back the data, playing back the audio, and making phrases by using the data. Ordinary MIDI usage can be seen in sequencing softwares. But Miwa seems to consider MIDI as a realtime music making technology.

Miwa started to use analogue synthesizers in his progressive rock band. He also used an old analogue sequencer. As all know it was not at all like sophisticated sequencing software today but it could only play back a short sequence of phrase at a time to be recorded on magnetic tape and may be edited to be composed. It was such a time-consuming procedure to make a short phrase. But it seems that Miwa was interested in it as it could directly reflect his musical idea when creating a piece of music by manual procedures. And it became a foundation of musical ideas for him as a composer. Different from many Classical composers of his age, he was fortunate to have such experiences before going on to computerized MIDI system. For Miwa who quit taking piano lessons in his early age, using MIDI may have been more or less substitute for playing a musical instrument.

The period that global MIDI standardization and digitization of sequencing softwares overlaps the years of Miwa's studies in Germany. During the second half of 1980s, he started to learn computer music as an advanced step as a composer. As a young composer who had been already familiarized with electronic instruments, it may have been natural for him to be interested in making music with computer technology. As a result, he composed three pieces during his last few years in Germany using early MIDI system. The last piece of those was "Gesänge des Ostens."

Generally speaking, when one composes using MIDI technology, he or she would be inclined to creating a fixed piece using a sequencing software. But he was more interested in creating a piece for realtime performance. He mentions that even though he always use technology, his pieces have been almost always composed to be performed live. For Miwa, technology is meant to be for performance, and pieces are composed to be performed and listened to at the site of the performance. That is the reason why he never uses MIDI technology as a foundation of sequencing purpose only.

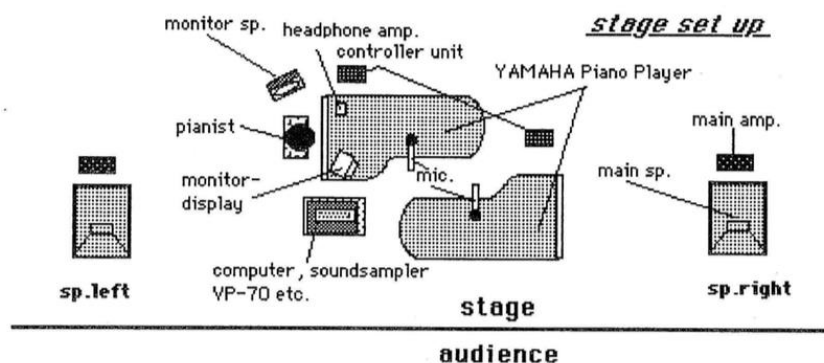
4. Performance Practice and Concept

Modeled after a Classical sonata, "Gesänge des Ostens" can be divided into four parts which should be performed continuously: I. Toccata, II. E/W Converter, III. Haus, and IV. Memory Overflow. The title of the first movement "Toccata" comes from the title of the 4th movement of *Le Tombeau de Couperin* by Ravel, while "E/W Converter" and "Memory Overflow" show Miwa's interests in computer technology, and "Haus" seems to be taken from the musical trend of the time.

The placement of the instruments and the performer looks as an ordinary two-piano performance setting where the two pianos are placed at the both sides of the stage and the pianists look face-to-face each other. But, of course, in this piece there is only one pianist who sits at the left side piano and no one sitting at the right side piano. It is played by the MIDI signal. (Ex.1: Stage set up)

Please take a look at the beginning of the piece and compare it to Ravel's Toccata. We can see the apparent similarity between the two: repeated Es with staccato, the key signature of one # in a fast tempo. (Ex.2 & 3)

There are some places in the piece where Miwa directly has quotation of the Toccata. The first one of which is located in m80. Here *sostenuto* pedal is used to record the pianist's performance of the measure which will be played back later on.



(Ex.1: Stage set up)



(Ex.2: Beginning of the piece)



(Ex.3: Beginning of Ravel's Toccata)



(Ex.4: m8 of Toccata)

In this piece two player pianos are used: one is played by the pianist to be directly sent out the MIDI signal which is sometimes recorded and to be played back later on the other piano which is automatically played by receiving the MIDI signal. What is played by the pianist is mainly recorded, but sometimes works as a trigger. The both example above have repeated Es in the beginning two measures. Only difference is the high Bb in the beginning of Miwa's piece. This high Bb is the sign of triggering a task such as a signal for a step-change of the program.

5. Integration of Performance of Piano Part and MIDI

Answering to my question, Miwa says that he carefully chose this Bb because it was not the tone from the scale of e minor, estimated key of the piece, and it would be easily recognized by the composer that the pianist is playing the right note to trigger something. Here we can hear the voice saying "Soi" Also here the pianist is playing real Bb key on a real acoustic piano mounted with MIDI system. So, just playing high Bb could play several roles at one time. For instance, at the beginning of the page, the pianist is playing the high Bb and pressing down the una corda pedal at the same time. By doing so the pianist is playing the note and triggering the step-change by playing the high Bb that plays back the voice saying "Soi!." At m8, next step-change appears for playing back "Soi!" and Japanese traditional folk song singing voice starting in next measure. At m16 there is a indication of sostenuto. It's a sign for recording of the fragment between "Soi"— and "Soi!." All the manipulation by pianist are musically integrated during the performance.

Miwa not only compose the piece but he has also developed an algorithm that is used to generate all the melodies that are main materials of this piece. He says that for the development of the algorithm he was influenced and inspired by the writings on Japanese traditional music by Minao Shibata. The book is entitled *Story of the Skeleton of Music*. He used Japanese pentatonic scales as the fundamental units of the tones and analyze and restructure the order of the tones and accumulation of perfect 4th. By controlling where one tone between the two notes forming perfect 4th, there could be created various kinds of units of Japanese traditional scales. By using this system he could create melodies in well controlled consistency. In order to chose where between the two outer tones, he uses the random walk theory. He also made tetrachords which have two middle tones. He knew the melodies will be single lines so he thought one staff was enough to notate the piano part.

The closest integration of real performance and triggering various recorded materials appears in the fourth movement "Memory over flow." After a intense of driving force of syncopating rhythms of the third movement, the beginning of the last movement emerges into a simple statements of simple melodies played in two octaves apart. This melodies seem to be inspired by the national anthem of Japan made with a pentatonic scale that is used widely for traditional folk songs in Japan. Remember that all the pre-recorded materials are the voices from the typical singing style of them.

Toward the end of the piece, those singing voices are played back in layers as if they formulate dense harmony while the pianist only plays simple half note single melody in a slow tempo, which is not a typical piano writing. All the sounds are triggered by the pianist when he/she press some keys along the original melodic lines. Harmonically, the whole music appears as a unity of 8 different melodies generated by the system, and the one last part is performed by the pianist whose part has less and less tones to perform along the way to the end of the piece. And here, we can notice transformations and exchanges between pentatonic and diatonic scales which are in a way representatives of Oriental and Occidental musics, just like Miwa, as a

Japanese composer, was struggling and trying to find his own musical voice when studying abroad.

6. Conclusion

Miwa has been always concerned about creating live music. In order to realize that, he started to compose “mixed” music from the very beginning of his career as a composer. The MIDI system has been said to be difficult to be used for composing contemporary music. But Miwa integrated the styles and ideas from the both sides and created it beautifully with originality. As a result, he created traditional sound of Japanese music and occasionally regular diatonic or pentatonic scales. This relates to the scale systems of Ravel’s *le Tombeau de Couperin* and other pieces in the same period. Thus he relates two different world of music: one from Western and one from Japanese by using forefront technology of creating music at the time. His words “the computer programs created by the composer recognize and analyze the pianist’s performance, record them, play back on the player piano, compose through the piano part, and let sampler sing... all could be done during the performance” proves the interactivity of the piece that never loses the basic concept of performing arts even though one of the pianos has no performer. *Gesänge des Ostens* may be one of the best examples of the artistic MIDI piece.

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