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Meanings in Making Music: Has Composing Changed with Technology?

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Abstract

In the one hundred years or so since Western classical music was first introduced in Japan, it has become an integral part of Japanese musical culture. By the 1950s, many talented Japanese composers – such as Toru Takemitsu, Toshiro Mayuzumi, and Joji Yuasa – were creating works in the same musical language as Western composers trained in the classical tradition; and, like their Western contemporaries, they were composing not only for traditional acoustic instruments, but also music for electronics and other emerging technologies of the time.

Composers of Takemitsu and Mayuzumi’s generation wrote both so-called art music, intended for serious contemplation in the concert hall, and commercial music, such as that for movies and radio programs. In present-day Japan, however, composers tend to identify themselves in groups according to more narrowly-defined categories, with very little interaction or overlap among these groups in terms of artistic expression.

Music technology first proliferated in Japan in the realm of popular music. Japanese composers who follow the tradition of Western classical music have tended not to consider music technology as real tools for artistic creation. However, this situation has been changing gradually over time. Surveying the development of Japanese composers over the past one hundred years, we can find dramatic transitions in terms of compositional methods and techniques. In this paper, I would like to talk about how music technology was introduced into the Japanese art music scene, and how it has contributed to works within that scene.

1. Different Types of Japanese Composers

Contemporary Japanese composers may be categorized into the following groups:

1. Composers who write exclusively for orchestral instruments;
2. Composers who write both instrumental and electronic/computer music;
3. Composers trained in the Western classical music tradition who focus on electronic/computer music as the most important part of their musical expression;
4. Composer who have no formal Western classical musical training but have been educated in music technology.

The first type of composers comprises those who have training in Western classical music but have not had the opportunity to study music technology. The second type of composers comprises mainly those who have studied Western classical music overseas and have broadened their music language to include music technology. The third type of composers comprises those who have formal training in Western classical music but have chosen a career path that focuses more on technological outputs. The fourth type of composers comprises mostly musicians who, despite having studied at universities without music departments, have nonetheless excellent compositional abilities. Among the fourth group of composers, some may not consider themselves to be “composers” proper but prefer themselves to be regarded as “sound artists” instead. Indeed, there are significant divisions between the above mentioned categories of composers with respect to what they do musically.

It is beyond the scope of this paper to report in detail on all four types of composers. Therefore, I would like to approach the history and philosophy of the second type of composers, comprising those who compose both instrumental and electronic music. Such composers are still among the minority in the Japanese music scene.

2. The Earliest Electronic Music of Japan

The earliest works of electronic music in Japan were composed by the generation that was born around 1930. Among these composers were Mayuzumi, Takemitsu, and Yuasa.

Mayuzumi was probably the first Japanese composer with a formal education in Western classical music to have heard *musique concrète* in Paris and to have composed a piece using such techniques in Japan. His *X, Y, Z for musique concrète* was composed in 1953 and is regarded as the first work of *musique concrète* by a Japanese composer. After graduating from Tokyo National University of Fine Arts and Music (now known as Tokyo University of the Arts) in 1951, Mayuzumi attended the Paris Conservatory. He returned to Japan a year later and composed *X, Y, Z* at the studio of the Japan Broadcasting Corporation (NHK). The piece is composed of sounds from a variety of sources such as construction sites, voices (both animal and human), water, and recordings of Mayuzumi's own instrumental works. It made use of all of the authentic *musique concrète* techniques of the time. The piece was broadcasted on NHK radio along with a detailed explanation of what techniques were used in its creation.

Takemitsu's *Water Music* was composed in 1960 using only the sounds of water drops as source material. While Mayuzumi's piece focused on how to put disparate sounds together to create a musical whole, Takemitsu was more interested in exploring subtle changes in the same kind of sound. While Takemitsu did not compose much in the way of "pure" tape music, he did compose numerous works for film that stand as excellent examples of early electronic music in Japan.

Yuasa composed the tape piece "Icon" for white noise in 1966, realized at the early NHK Electronic Music Studio. He furthered his study of computer music through a residency at the Institut de Recherche et Coordination Acoustique/Musique (Ircam) in Paris and later became a professor of composition at the University of California at San Diego. Yuasa continued to make use of computer technology in his music, with his methods growing more sophisticated in hand with technical developments.

While Mayuzumi and Takemitsu were interested mainly in *musique concrète*, Yuasa was more interested in sounds created through technology. Unfortunately, Mayuzumi and Takemitsu died before they were able to discover new possibilities for employing computer technology in music that would capture their interests.

3. The Second Generation

While the 1970s saw rapid developments in music technology in Japan, composers in the country's art music scene after the first post-war generation were slow to adopt these emerging technologies. Although there was no lack of talent among composers at the time, most of them did not have access to these new technologies at their places of study in Japan. For many of them, it was not until they went to study abroad that they gained their first exposure and realized the artistic potential of music technology.

Among the most important composers of this second generation is Ichiro Nodaira. Born in 1953, Nodaira attended the Paris Conservatory in 1978 following his graduation from Tokyo National University of Fine Arts and Music. In Paris, he joined the Ensemble Itinéraire as a pianist, continuing as a member for 10 years, and met the ensemble's affiliated composers Gérard Grisey and Tristan

Murail. Through this association, he was arguably the first Japanese composer to have real contact with spectral music. According to a lecture that Nodaira gave at Columbia University in 2004, prior to his arrival in Paris he had composed mainly using serial techniques, and thus his encounter with spectral music was particularly refreshing and had a great influence on him (lecture notes in Japanese accessible online, <http://www.ff.iij4u.or.jp/~nodaira/es040204.htm>).

The first piece Nodaira composed with the use of technology was *Texture du délire* for chamber ensemble and electronic sounds in 1982, written for Itinéraire. Through this piece he gained entry to IRCAM, which in turn allowed him the opportunity to acquaint himself with the earliest version of the software MAX being developed by Miller Puckett. Thus he became the first Japanese composer to explore the possibility for composing music by means of real-time computer technology. Later in 1991, Nodaira composed the piece *Quatorze écarts vers le défi* for MIDI piano, string octet, and real-time computer system.

In 2004, Nodaira was the featured composer for the Music From Japan festival in New York City, at which he gave the above mentioned lecture at Columbia University. In his talk, he mentioned that his concept for this piece was "to open up the stream of sounds that never stops". This statement reminded me of the same words, "stream of sounds", that Takemitsu mentions with regard to his impression of listening to Gagaku in his book, *Sound: Confronting Silence (Oto, Chinmoku to Hakariaeru hodoni*, Tokyo: Shincho-sha, 1971). Takemitsu was impressed by the richness of pitches and timbres that could never be explained by the equal-tempered tuning system. Takemitsu also wrote that he was fascinated by Japanese traditional music in which micro pitches and rich timbres change in time with no clearly marked beats and no absolute tempos.

It is unclear whether Nodaira was aware of this coincidence in word usage at the time, but it is obvious that those musical elements which Takemitsu so admired are the same ones that form the core values of spectral music composition. It is remarkable that both Takemitsu and Nodaira were totally Westernized Japanese composers of their times, yet their compositional concepts may be traced to Japanese traditional music. But, even for Nodaira, once he returned to Japan he had few opportunities to compose works that employed technology. In fact, although he has had an intimate relationship to spectral music since its formative period, he has never composed a piece using spectral techniques.

4. The Third Generation

Japanese composers born after 1960 show different tendencies to those of their predecessors. A leading woman composer from the third generation, Hitomi Kaneko was born in 1965 and studied at Toho Gakuen School of Music in Tokyo. After graduating with a master's degree, she went to the Paris Conservatory in 1990, where she studied with Grisey. Toho Gakuen is probably best known as the home to a distinguished early solfege music program of study, as well as being the alma mater of many excellent performers such as the conductor Seiji Ozawa and the violinist Akiko Suwanai. Kaneko was no exception, but she did not have an opportunity to study electronic music until she was exposed to it at the Paris Conservatory. In my interview with the author (by e-mail, Tokyo, 2010), she recalled how shocking it was when she composed her first works for analog electronics, *Etude I* (1991) and *Etude II* (1992). In realizing such music by her own hand, she noticed that it made a huge difference to be able to make music from scratch by creating individual sounds by herself. That proved a pivotal moment for her to start working on composing with technology.

Later, Kaneko began to follow Grisey, her teacher, in his methods for composing spectral music. Her *Rayon vert* (1993) was the first purely instrumental piece that she wrote using this method, and is most likely the first authentic work of spectral music by a Japanese composer. Her interest has since continued to be in looking inside of sounds and exploring how one sound could be changed through time.

5. The Earliest Spectral Music

I have identified Kaneko's *Rayon vert* as the first work of spectral music by a Japanese composer. However, there is a piece years prior to this by another Japanese composer that was composed from a similar musical idea.

Mayuzumi, who composed the first example of musique concrète in Japan, also composed numerous orchestral works. Among them is a piece called *Nirvana Symphony*, composed in 1958 and scored for three orchestras and male chorus. His idea for the orchestration is remarkable. Mayuzumi recorded the sounds of the huge bells of Japanese temples such as Todaiji, Byodoin, and Honenin. He then analyzed these recordings at the NHK Electronic Music Studio and used the spectral data for his orchestration, calling his method "campanology effect". Today we may regard this as spectral technique, but at that time the term had not yet been coined: Grisey was still a child, and Jean-Claude Risset had not yet started his studies of the timbre of musical instruments. Interestingly, both Grisey and Murail later found themselves attracted to the unique sound spectra of Japanese bells and these sounds kept their interests for a long time. But it took them nearly twenty years after Mayuzumi to realize their ideas for spectral composition.

Conclusion

In May 2010, Murail was invited to Japan for "Composium", one of the biggest annual events in the Japanese contemporary music scene. Several of his principle works, including *Gondwana*, received their Japanese premier under the direction of his old friend Nodaira. It was truly a landmark event for the Japanese audience to listen to what spectral composers had achieved over the last thirty years.

Murail also gave a series of lectures as part of the event, during which he presented recent works in collaboration with a video artist. In one of his talks, he mentioned how he had been inspired by the laws of nature, including fractal geometry. His words reminded me of Takemitsu and Nodaira's reference to the "stream of sounds". Regardless of time, what inspires our artistic ideas may always be taken from the most primitive phenomena of nature. Today, we are in the midst of a new era of the arts along with science, yet both arts and sciences can be traced back to origins in natural phenomena. Even though artistic styles may change, we may always return to nature for new inspiration.

It is helpful to investigate what our predecessors have done with respect to the use of technology in Japanese contemporary music, so that we can find our own artistic expressions for making music that combines ideas from both technology and tradition at the same time.

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