

Marin Escande

The tape music of *Jikken Kôbô* 実験工房 (Experimental Workshop): Characteristics and specificities in the 1950s

PhD student at Sorbonne University / Research student at Tokyo University of the Arts

escandemarin@gmail.com

Abstract

Active during the 1950s in Tokyo, *Jikken Kôbô* was a collective of fourteen young artists, both musicians and visual artists, who collaborated on works such as experimental ballets, concerts/exhibitions, and audiovisual productions. A major group within the post-war renewal of the avant-garde, *Jikken Kôbô* initiated original forms of performance based on the idea of artistic collaboration. Concerning its musical production, composers such as Takemitsu Tôru 武満徹 (1930-1996), Suzuki Hiroyoshi 鈴木博義 (1931-2006) or Yuasa Jôji 湯浅譲二 (1929-) explored potentialities of tape music and became pioneers of it in Japan, alongside other composers like Mayuzumi Toshirô 黛敏郎 (1929-1997) or Akutagawa Yasushi 芥川也寸志 (1925-1989). Contemporaries of the first tape music experiments in Europe, they developed their own way of apprehending this new medium.

In fact, in their explorations of new interactions between forms of media, the members of *Experimental Workshop* were interested in technologies of sound and visual reproduction. In 1953, they created works for an automatic slide projector called *ôtosuraïdo*. This was a device with educational purposes, developed by the company *Tokyo Tsûshin Kôgyô* (Tokyo Industry of Telecommunication) (later renamed *Sony*) that made it possible to synchronize a slide projector with a sound tape. Subsequently, the group continued its audiovisual experiments with *Mobile to Vîtorin* (Mobile and Vitrine) (1954) and *GinRin* (Silver Wheel) (1955), made under the supervision of filmmaker Matsumoto Toshio 松本俊夫 (1932-2017). Some composers of *Jikken Kôbô* also created radio dramas in collaboration with the main radio stations of the time, such as *Nihon Hôsô Kyôkai* (NHK) (Japan Broadcasting Corporation) and *Shin Nihon Hôsô* (New Japan Broadcasting). For instance, *Honô* (Flame) by Takemitsu Torû was released in November 1955 and would become the raw material of his later piece *Relief statique* (Static Relief). The tape music of the group was also used as accompaniment for stage performances, including ballets, and even for art exhibitions.

The outcome of these experiments in the 1950s would take the form of a concert in 1956 at the Yamaha Hall in Tokyo, which featured two composers from the group *Sannin no kai* (Society of Three), Mayuzumi Toshirô and Akutagawa Yasushi, along with Shibata Minao 柴田南雄 (1916-1996). Entitled *Musique concrète/electronic music audition*, it marked a turning point in the development of tape music in Japan and outlined the different directions taken by Japanese composers with the medium – moving between the French model (*musique concrète*) and the German model (constructivist electronic music).

Nevertheless, apart from Mayuzumi's trip to Paris in 1951-1952 during which he attended two concerts of *musique concrète*, contact with Europe was almost nonexistent during the first half

of the 1950s. We can argue that tape music in Japan grew in a largely self-sufficient way at this time. Composers of the *Experimental Workshop* had received only scattered echoes of experiments made in France, and developed their own way of apprehending the medium. First of all we notice that, unlike Pierre Schaeffer with *musique concrète*, the composers had no will to theorize or even conceptualize this new music. This is linked to the very nature of the group, which almost never sought to explain their artistic activities through writing, evidenced by the lack of a manifesto. Even if they used the same processes of sound transformation – reverse playback, slowing or accelerating effects, etc. – they did not share the Schaefferian concept of *objet sonore*.

Indeed, the tape music of *Jikken Kôbô* developed through intermedia experiments, in relation to visual art and forms of narration. It differs from Schaeffer's approach because it does not necessarily avoid the anecdotal aspect of recording sounds. While Schaeffer wanted to abstract the sound in order to replace it within a musical context, composers like Takemitsu readily used sounds of nature or human voices in a dramaturgic mode more linked to radio dramas.

The following paper will therefore propose to put into perspective the experiments with tape music undertaken by *Jikken Kôbô* with concurrent experiments in Europe. The aim will be to identify its specificities with regards to *musique concrète* or even the electronic music of the Cologne studio. I will contextualize the emergence of this music in Japan after the war and try to categorize and explain the different conceptual approaches of tape music within the group. I will analyse the pieces and their relationship with other artistic mediums, in order to highlight the importance of their intermedia origins.

Introduction

In this paper, I will focus on the tape music of Experimental Workshop. That is to say, music using technologies of sound reproduction composed by the group members¹ between November 1951 and August 1957 – dates that correspond to, respectively, the creation of the ballet *Ikiru Yorokobi* (The Joy of life), and the second summer exhibition at the *Fugetsudô* café, considered as the group's last public event. This repertoire, still relatively unknown, requires in my opinion further investigation, in order to better understand the genesis and development of tape music in Japan in the 1950s. In a more international context, it is also interesting to put into perspective these experiments with those undertaken in Paris at the same time. Indeed, while the well-known electronic music studio of NHK – lead by the experiments of Mayuzumi Toshirô, Moroi Makoto 諸井誠 (1930-2013) and Shibata Minao – developed its activities mainly according to the German constructivist model of the Cologne studio, many aspects of *Jikken Kôbô* tape music can be compared to French *musique concrète*.

Concerning the sources available today, many sound works are either lost or are difficult to access and prohibited from being copied. However, it is possible to listen to some of them during exhibitions or by consulting archives. For instance, some audiovisual works realised by *Jikken Kôbô*, such as the short movie *GinRin* and three *ôtosuraïdo*, now exist in digitized versions and have been regularly exhibited across the world over the last ten years. These works, using tape music, were presented this year during two different exhibitions at Hayama

¹ Takemitsu Tôru 武満徹 (1930-1996), Yuasa Jôji 湯浅譲二 (1929-), Suzuki Hiroyoshi 鈴木博義 (1931-2006), Fukushima Kazuo 福島和夫 (1930-), Satô Keijirô 佐藤慶次郎 (1927-2009), Akiyama Kuniharu 秋山邦晴 (1929-1996).

Museum of Art² and at Okamoto Tarô Museum of Art³. Concerning the tape music of Takemitsu, this repertoire is available on CD⁴ as part of a complete edition of his works. Written sources from this period mainly consists of concert programs and articles in specialized newspapers like *Bijutsu Techô*, *Onkyô Shinbun*, *Onkyô Geijutsu*, *Shinonô*, etc.⁵ Although the members of *Jikken Kôbô* never truly tended to theorize their approach to tape music through writing, by cross-examining these scattered documents we can try to give an overview of the evolution of their compositional thought in the 1950s.

First of all, it can be observed that there are very few purely musical pieces within the tape music of Experimental Workshop. Almost all of their sound experiments participate in an intermedia whole, by being superimposed with images or by accompanying stage performances. This is the case for Takemitsu who composed the most for this medium. Apart from the three pieces of *Vocalism* (*Vocalism A.I*, *Ki Sora Tori* and *Clap Vocalism*), his other works were all recomposed from radio dramas or from music he made for stage. At this point it is possible to argue that the tape music of *Jikken Kôbô* was developed in a permanent dialogue with other artistic medias, and it is through this intermedia gap that the different sound experiments of the group emerged in the 1950s. Then, in accordance to the public events where pieces were displayed (music concerts, audiovisual performances, radio broadcastings, etc.), we can attempt a taxonomy of this musical production. Before I begin, I will briefly situate it in the context of the emergence of tape music in Japan during the 1950s.

Japanese tape music in the 1950s: *Myûjikkû konkurêto* and *denshi ongaku*

In 1953, a radio program called *Maikurofon no tame no ongaku* (Music for microphone) was broadcast by the *NHK*. It presented three works for orchestra commissioned by the radio station, with the aim of promoting new sound-capture technologies. In this instance a system was designed to independently manage the sound volume of different groups of instruments, in a relatively accurate way. These three pieces have the particularity of being composed in order to exploit new recording technologies. The works were: *Maikurofon no tame no fantajî* (Fantasy for microphone) by Akutagawa Yasushi, *Maikurofon no tame no ongaku "Maguna"* (Music for Microphone "Magna") by Tominaga Saburô 富永三郎 (1916-1987) and *Maikurofon no tame no ongaku* (Music for Microphone) by Fukai Shirô 深井史郎 (1907-1959). The first piece composed, in 1949, was the one by Akutagawa Yasushi⁶. It is considered the first tape music experiment in Japan. That is to say, the first musical piece in which technologies of sound reproduction were used in the composition process. In addition to this new system of recording, Akutagawa occasionally used reversed sounds of percussion or altered speed of playback to enrich his orchestration at strategic moments.

² Exhibition entitled "Japanese Art of the 1950s: Starting point after the war" at Hayama Museum of Art. (From 01/28/2017 to 03/26/2017).

³ Exhibition entitled "Taro Okamoto and the development of Media Art: featuring works by Katsuhiro Yamaguchi" at Okamoto Tarô Museum of Art. (From 11/03/2017 to 28/01/2018).

⁴ Tetsuo Ôhara 大原哲夫 (ed.), *Takemitsu Tôru zenshû dai-5-kan: uta, tēpu ongaku, butai/rajio/TVsakuhin, hoi* (武満徹全集 5 巻 うた、テープ音楽、舞台・ラジオ・TV作品、補遺 Complete Takemitsu Edition 5: Popular Songs, Tape-Music, Music for the theater radio and TV, Addenda), Tokyo, shôgakukan (小学館), 2004 [+ 14 CDs].

⁵ Most of the documents written during the 1950s relating to *Jikken Kôbô* have been gathered together. See Harumi Nishizawa 西澤晴美 (ed.), *Dokumento Jikken Kôbô* (ドキュメント実験工房 *Jikken Kôbô* documents), Tôkyô, Tôkyô Publishing House, 2010.

⁶ The piece had already been broadcast by *NHK* in 1952.

This piece would be also played on the 6th of February 1956 at the *Yamaha Hall* in Tokyo, during the concert *Myūjikkū konkurēto/denshi ongaku ôdishôn* (Musique concrète/electronic music audition). This was the first concert in Japan without musicians, devoted exclusively to tape music. Pieces by Takemitsu Tôru, Suzuki Hiroyoshi, Mayuzumi Toshirô and Shibata Minao were also presented. As the name of the event indicates, in Japan there was at the time a clear distinction between *musique concrète* and electronic music. The term *myūjikkū konkurēto* was used for a wide range of tape music and did not seem to carry the same conceptual meaning as in France. We notice the use of two terms in the various writings of the time to describe it: *genjitsu-on* 現実音 (real sound) and *gutai-on* 具体音 (concrete sound). While *genjitsu-on* can be understood very broadly as an opposition to synthetic sounds, *gutai-on* emphasizes the materiality of the sound as something intrinsically related to a concrete phenomenon, as opposed to the abstraction of music notation.

Denshi ongaku (electronic music) refers to sound experiments using synthetic electronic sounds and was developed through constructivist thought as a follow-up to serial music. It is directly linked to the experiments undertaken in the Cologne studio. Nevertheless it is important to note that this distinction between *myūjikkū konkurēto* and *denshi ongaku* is not absolute. For instance, Mayuzumi Toshirô experimented with both real sounds and synthetic sounds in most of his pieces. This is also true for Takemitsu who used some synthetic sounds, for instance in his work *Relief Statique* (Static Relief). Shibata Minao also mixed the French and German conceptual models in his piece *Musique concrète for stereophonic sounds*, by organizing concrete sounds according to a serial system.

Overall, we can argue that the development of tape music in Japan is mainly related to the electronic music studio of *NHK* that emerged progressively in the first half of the 1950s⁷. It may be noted that *Jikken Kôbô* members only worked occasionally in this studio. For instance, Takemitsu mainly produced tape music in another radio station called *Shin Nihon Hôsô*. Likewise, the *ôtosuraïdo* project that will be discussed later was realised in the company *Tôkyô Tsūshin Kôgyô*. Even though there were no studios devoted primarily to tape music, we can surmise that they were able to use audio equipment.

The status of artwork within *Jikken Kôbô*: through an intermedia perspective

Before speaking specifically about the tape music of *Jikken Kôbô*, I would like to discuss some questions related to the status of artwork within the group, in order to better understand its creative dynamic. In doing so, I will base my argument on a citation from the artist Yamaguchi Katushiro 山口勝弘 (1928-), written in 1956:

The energy of Experimental Workshop always radiated in both centripetal and centrifugal directions. By centripetal I mean an inward movement away from the outer-directed teamwork of

⁷ The researcher Kawasaki Kôji gives a very accurate description of it in his recent article. He based his research on digitized radio programs from the *NHK* archives. See Kôji Kawasaki 川崎弘二 and Satoshi Shimura 志村哲, “NHK Tokyo ni oite seisakusareta denshi ongaku no chōsa (1952-1968nen)” (NHK東京において制作された電子音楽の調査 (1952-1968年) Survey of electronic music composed in Tokyo NHK (Japanese broadcasting corporation) (1952-1968)), *Journal – Institute of Advanced Media Arts and Sciences*, 8, 2016, pp. 121-136.

the group, a return to individual work. By centrifugal, I mean the attempt to combine works in the various fields of art, music, and literature through logically necessary ideas.⁸

In accordance to Yamaguchi's perspective, we can then define two types of artwork within *Jikken Kôbô*: (1) the collective artworks (centrifugal movement). These are performances or audiovisual artworks. They are signed collectively and anonymously with the name of the group. (2) the individual artworks (centripetal movement). These are paintings, sculptures, pictures, musical pieces, etc. These artworks were often reused in a modified form through collective projects, or, conversely, they resulted from experiments made for these performances. Furthermore, the same experimentations of one artist could be used as part of several different performances. For instance, some sculptural forms used for ballet staging were also used for experimental short movies or photographic assemblage, etc. This mobility can also be found in the tape music. As said in the introduction, the vast majority of these musical works were composed for stage or audiovisual projects. This dialectic between on the one hand individual works, and on the other hand collective works, is one of the most important aspects of the process of experimentation within *Jikken Kôbô*. It opened the way towards new intermedia experiments. As will be discussed later, the fact that these art works circulated through various forms of public representations – exhibitions, ballets, short movies, concerts, radio broadcasting, etc. – and confronted different fields of art, deeply influenced their conception.

This intermedia aspect of the group also came from a fascination with new technologies stemming from a general taste for science fiction. This is contemporaneous with the development of mass media in the 1950s. At this time, tape music was a source of income for composers. For instance, they were involved in radio drama projects commissioned by main radio stations like *Shin Nihon Hôso* or *NHK*. Takemitsu also composed frequently for theatre, television and film production in the 1950s. Similarly, in 1955 he collaborated on a short movie advertisement called *GinRin*, commissioned by the Japanese bicycle industry.

***Ôtosuraido* and other audiovisual projects: towards a *musique concrète*?**

One of the best examples of this intermedia aspect is the *ôtosuraido* project from 1953. It was also the first tape music experiment undertaken within the group. The *ôtosuraido* device was a slide projector synchronised with a magnetic tape. On the back of the tape some marks were engraved, which would then trigger the slide change. This equipment was developed by the company *Tôkyô Tsûchin Kôgyô*, the forerunner of Sony.

On September 30th 1953, during the fifth *Jikken Kôbô* event, four autoslides were displayed: *minawa ha tsukareru* (The foam is created) by Fukushima Kazuo and his sister Fukushima Hideko 福島秀子 (1927-1997); *Resupûgû R. Ganzo no tame no shi ni yoru* (Lespugue, from a poem by R. Ganzo) by Yuasa Jôji and Komai Tetsuro 駒井哲郎 (1920-1976); *shiken hikôka WS-shi no me no bôken* (The adventure of the eyes M. WS, test pilot) by Suzuki Hiroyoshi and Yamaguchi Katsuhiro; and *mishirarenu sekai no hanashi* (Tales of another World) by Yuasa Jôji, Hiroyoshi Suzuki and Kitadai Shôzô 北代省三 (1921-2003). These *ôtosuraido* artworks were created almost at the same time as the first broadcasting by the radio station *Bunka Hôso*

⁸ Katsuhiro Yamaguchi 山口勝弘, "shuchô to jikken - Jikken Kôbô" (主張と実験「実験工房」Experimental Workshop - Declarations and experiments), translated by Stanley N. Anderson, *ongaku geijutsu* (音楽芸術), Septembre 1956, p. 70.

(Cultural Broadcasting) of *myujikku konkuretô no tame no sakuhin XYZ* (Works XYZ for musique concrète) by Mayuzumi Toshirô⁹.

Regarding the *Jikken Kôbô* members, they adopted an original attitude to this new media. They seemed to be influenced by the Akutagawa works described above. This is the case for *Resupûgû R. Ganzo no tame no shi ni yoru*. Yuasa Jôji composed a piece for flute and piano, and then recorded it in reversed playback mode. A score entitled *Music for projective Art* was written. Concerning *The foam is created*, Fukushima Kazuo recorded a singing voice and a piano sounds, employing subtle effects of low speed playback. In *Tale of another World*, Yuasa and Suzuki took a recording of a chamber music piece, and by using a splice pasted on the capstan of the tape driver, they created a blast sound effect. For *The adventure of the eyes of M. WS, test pilot*, Suzuki Hiroyoshi also worked on recordings of a music chamber piece and transformed piano sounds. These pieces were all accompanied by the voice of a narrator reciting a story or a poem linked to the slide.

What we have here is a new experiment directly enabled by new audiovisual technology, the *ôtosuraido*. It is through being exposed to this shifting of instrumental music in an intermedia space, that composers could experiment with new transformations of sound. We can observe the general use of the same techniques as Pierre Schaeffer. Even if these works were based on recordings of instrumental music, it can nonetheless be said that there was, however timidly, a use of what might be called concrete sounds – notably in low denatured piano sounds or the blast sound effect described above.

In the same event, a sound work by Akiyama Kuniharu called *tâpu recôdâ no tame no shi* (poem for tape recorder)¹⁰ was also played. Unfortunately, today it is lost. There remain only some reviews of the concert¹¹. Akiyama seems to have worked around the idea of polyphonic recitations of poems by superimposing voices of different speakers.

One year after, in 1954, Yuasa participated in another audiovisual experiment in collaboration with artists Kitadai Shôzô and Yamaguchi Katsuhiko: a short movie called *Mobile to Vitorin*. This artwork is also lost today, but there exists a review published in the newspaper *Ongaku Shinbun*.¹² Yuasa used different instruments, such as piano, cello, marimba and percussions. According to the newspaper, the composer seems to have created a variety of concrete sounds with these instruments. The critic also emphasises the material from which the percussion is made, metal and wood, which suggests a particular focus on the sound itself in terms of its acoustic properties. We can suppose in this case that this idea of concrete sound was more integrated than it was in the case for his *ôtosuraido*, where a score was written. Moreover, contrary to the program note and the critic review of the *ôtosuraido* project that used only *têpu ongaku* (tape music), the term *myûjikku konkurêto* appears in the article of *Onkyô Shinbun*. It seems to have been recognized by the Japanese musical world. The influence of experiments made in France, relayed by Mayuzumi, was felt. The tape music more and more moved away

⁹ This pioneering work was composed after travelling to Paris, where he discovered the works of Pierre Schaeffer.

¹⁰ The piece is divided into two parts: *Sakuhin A* (Piece A) and *Piece B: torawareta onna* (Piece B: captive women).

¹¹ See Anonyme, “kowareta onna no jôen têpu rekôdâ ni yoru shi jikken kôbô no atarashii kokoromi”(「囚われた女」の上演テープレコーダーによる詩 実験工房の新しい試み Performance of “Captive women”, Poem for tape recorder, a new *Jikken Kôbô* attempt), *yorozu chôhô* (萬朝報), 09/29/1953, p. 4.

¹² See Anonyme, “Tokyo amerika bunka sentâ de futatsu no moyôshi/myûjikku konkurêto ni yoru bijutsu eiga”(東京アメリカ文化センターで二つの催し/ミュージックコンクレートによる美術映画 Two events at the Tokyo American Cultural Center / artistic film with musique concrète), *ongaku shinbun* (音楽新聞), n° 583, 10/10/1954, p. 3.

from music notation. We see the emergence of conceptual difference between instrumental writing and composition for magnetic tape. The sound effects are no longer used as transformation of a written musical piece, but as the raw material of the composition process. In other words, tape music started to free itself from instrumental music.

The tape music of Takemitsu Tôru

Due to sickness, Takemitsu did not participate in the *ôtosuraïdo* project. Nevertheless, in the following years it was mainly him who would realize works for magnetic tape. Mostly, he composed radio dramas commissioned by the *NHK* or the *Shin Nihon Hôso*. However, it should be noted that he collaborated with Mayuzumi for two *Jikken Kôbô* projects: the ballet *Mirai no Ivu* (The Future Eve, 1955) and the short advertising movie *GinRin* (1955) produced by Matsumoto Toshio.

As mention previously, *GinRin* was digitized and exhibited a few times recently during exhibitions. It follows the story of a young boy dreaming of bicycles. The film begins with a sequence in which the boy is awake, reading a book. He then falls asleep and begins to dream. During the dream sequences, Matsumoto Toshio explores various visual effects, sometimes similar to abstract experimental films, with close-ups on slow rotating wheels and other metal forms that evoke mass industrial production. Concerning the tape music, it could be split into two parts, one using instrumental recordings and the other concrete sounds. We notice that the concrete parts coincide with the dreamlike sequences of the movie, while the instrumental parts are played when the boy is awake. The two musical worlds follow each other and are sometimes superimposed in a very fluid way, as in fade effects used for images. The new cinematographic techniques that Matsumoto Toshio experimented with can be compared with the sound transformations used by Takemitsu and Mayuzumi. We find the same slow or reverse playback effect both in the video and the sound. We have here a good example of the reciprocal influence of media stimulated by what Yamaguchi called in one of his essays the “deterritorialization of art”¹³.

This musical continuum between instrumental music and concrete sounds is also present in the radio drama, *Oto no shiki* (Sounds of the four seasons) commissioned by the *NHK*. The piece was broadcast for the first time on the 20th of March 1955. It was a collaboration between Hayasaka Fumio 早坂文雄 (1914-1955) and the composers of *Experimental Workshop*, Takemitsu Tôru, Suzuki Hiroyoshi and Satô Keijirô. It is subtitled “symphonic poem for real sounds and music” (genjitsu-on to ongaku ni yoru kôkyôshi). The purpose was to express the four seasons of Japan through music. We notice the use of very evocative sounds, which can be easily identified. The abstraction of the referential, which *musique concrète* tries to achieve, is definitely not present. It is a somewhat romantic and descriptive approach, which recalls program music. The term “Symphonic poem” is then partially justified. We can hear a variety of sounds related to the natural environment, like birdsong, insects and blowing wind, in addition to sounds from human activities such as telegram signals and sirens, all recreated in studio. Instrumental music and environmental sounds sometimes evolve in the same musical space. That is to say, instrumental music can occasionally be heard as a component of the landscape, depicted by the environmental sounds. Notably, during the passage that features traditional Japanese musical instruments, percussions and flute sounds seem to emerge from

¹³ See Katsuhiro Yamaguchi, “Experimental Workshop and the Deterritorialization of Art”, translated by Stanley N. Anderson, *The 11th Exhibition Homage to Shuzo Takiguchi, Experimental Workshop*, Tôkyô, Satani Gallery, 1991, pp. 22-29..

the soundscape. This porous frontier between musical accompaniment and sound design would become characteristic of Takemitsu film music. We can observe an example of this a few years later in the film *Kaiden* (1964), where sound design is sometimes voluntary desynchronized from the image to become a musical element.

In 1955, Takemitsu also composed the radio drama *Honô* (flame), commissioned by the *Shin Nihon Hôso*, in collaboration with the famous writer Inoue Yasushi 井上靖 (1907-1991). It would then be rearranged for an independent musical piece called *Relief Statique*, which would be played during the *Musique concrète/electronic music audition* in 1956. Similarly, *Yuridisu no Shi* (The death of Eurydice), which came from the stage music he previously made for the theatre piece *Ai no Jôken* (condition of love), would be premiered during the first Summer Exhibition organised by *jikken Kôbô* at *Fugetsudo Café* in August 1956. This once again demonstrates the mobility of artworks through various public representations, as previously described. These two pieces share the characteristic of using, among others, synthetic electronic sounds. A kind of a duality is created, between abstract sounds (synthetic sounds) and anecdotic sounds (real/concrete sounds). These are certainly the attempts that most closely resemble *musique concrète*. Takemitsu plays with different evocative levels of sound, across the boundary line between referential and non-referential elements. We notice in both of these pieces the use of highly transformed human voice, almost unidentifiable, which bears witness to this intermedia origin.

This experimentation with the human voice, directly linked to his experiences of radio drama and stage music, is another central aspect of Takemitsu's tape music. This is the case for *Umi no Gensô* (Illusion of the sea) (1955), based on a text by Akiyama Kuniharu, and even more so for *Vocalism A.I.*, the first part of his cycle *Vocalism* (1956). In this piece, he uses the two syllabus of the word *ai* 愛 (love) as raw materials, recited by one female and one male actor in a multitude of inflections, upon which he occasionally adds sound transformations. Here the composer explores the emotional potentiality of the human voice through of a wide range of expression. The theatrical aspect of the voice becomes the main structural element of the music. We can hear a variety of affects – joy, anxiety, sadness, jealousy, anger, etc. – organized in order to create a kind of narrative progression.

Conclusion

To conclude this paper, I would like to raise an interesting point that will need further investigation to better understand the aesthetic of *Jikken Kôbô* tape music: the influence of the surrealist poet Takiguchi Shûzô 瀧口修造 (1903-1979), considered the spiritual father of the group. As with French *musique concrète*, I would suggest that the aesthetic of collage developed in the group's tape music could be understood according to a certain underlying surrealistic spirit. Like Pierre Schaeffer, composers such as Takemitsu Tôru were able to understand the artistic potential of this media. We find in both cases a similar fascination with *art relais* stimulated by experiments in poetry and theatre.

The fact that *Jikken Kôbô* composers never fully succeeded in abstracting sound from its evocative power could be understood through the lack of theoretical texts, such as a manifesto. Contrary to Schaeffer, there was no will to formalize their approach to tape music through the written word. This lack of theory prevented them from achieving a real conceptual rupture, as in the case of *musique concrète* in France in the 1950s. Moreover, Schaeffer wanted to make tape music self-sufficient to create a new and pure musical language equivalent to instrumental music. This sense of purpose would lead him to a very far-reaching theorization of sound.

Conversely, the tape music of *Jikken Kôbô* was never extracted from its intermedia origin, remaining in constant dialogue with radio drama, music for stage and film, and other art forms.

References

ANONYME, “kowareta onna no jôen tēpu rekôdâ ni yoru shi jikken kôbô no atarashii kokoromi” (「囚われた女」の上演テープレコーダーによる詩 実験工房の新しい試み Performance of “Captive women”, Poem for tape recorder, a new Jikken Kôbô attempt), *yorozu chôhō* (萬朝報), 09/29/1953, p. 4.

ANONYME, “Tokyo amerika bunka sentâ de futatsu no moyôshi/myûjikkû konkurêto ni yoru bijutsu eiga” (東京アメリカ文化センターで二つの催し/ミュージックコンクレートによる美術映画 Two events at the Tokyo American Cultural Centre / artistic film with *musique concrète*), *ongaku shinbun* (音楽新聞), n°583, 10/10/1954, p. 3.

ISHII Yushihiko 石井幸彦, “jikken kôbô jidai no Komai Tetsurô” (実験工房時代の駒井哲郎 Tetsurô Komai in the time of Jikken Kôbô), *Jikken Kôbô Experimental Workshop*, Tôkyô, Tôkyô Publishing House, 2013, pp. 234-237.

KAWASAKI Kôji 川崎弘二, “jikken kôbô no denshi ongaku” (実験工房の電子音楽 The electronic music of Jikken Kôbô), *Jikken Kôbô Experimental Workshop*, Tôkyô, Tôkyô Publishing House, 2013, pp. 246-248.

KAWASAKI Kôji 川崎弘二 and Satoshi SHIMURA 志村哲, “NHK Tokyo ni oite seisakusareta denshi ongaku no chôsa (1952-1968nen)” (NHK東京において制作された電子音楽の調査 (1952-1968年) Survey of electronic music composed in Tokyo NHK (Japanese broadcasting corporation) (1952-1968)), *Journal – Institute of Advanced Media Arts and Sciences*, 8, 2016, pp. 121-136.

NISHIZAWA Harumi 西澤晴美 (ed.), *Dokumento Jikken Kôbô* (ドキュメント実験工房 Jikken Kôbô Documents), Tôkyô, Tôkyô Publishing House, 2010.

ÔHARA Tetsuo 大原哲夫 (ed.), *Takemitsu Tôru zenshû dai-5-kan: uta, tēpu ongaku, butai/rajio/TVsakuhiin, hoi* (武満徹全集5巻うた、テープ音楽、舞台・ラジオ・TV作品、補遺 Complete Takemitsu Edition 5: Popular Songs, Tape-Music, Music for the theater radio and TV, Addenda), Tokyo, shôgakukan (小学館), 2004 [+ 14 CDs]

SATÔ Reiko, “Jikken kôbô no katachi - Kitadai Shôzô wo chûsin toshite” (「実験工房」のかたち – 北代省三を中心として Forms of Jikken Kôbô – with a focus on Kitadai Shôzô), *Jikken Kôbô Experimental Workshop*, Tôkyô, Tôkyô Publishing House, 2013, pp. 246-248.

YAMAGUCHI Katsuhiro 山口勝弘, “shuchô to jikken – Jikken Kôbô” (主張と実験「実験工房」 Experimental Workshop – Declarations and experiments), *ongaku geijutsu* (音楽芸術), September 1956, p.70-72

YAMAGUCHI Katsuhiro, “Experimental Workshop and the Deterritorialization of Art”, translated by Stanley N. Anderson. *The 11th Exhibition Homage to Shuzo Takiguchi, Experimental Workshop*, Tôkyô, Satani Gallery, 1991, pp. 22-29.