Soundwalk, Digital Media, and Sound Art

Sawako Kato
email: sonico@sfc.keio.ac.jp

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Abstract

With devices such as cell phones and headphones becoming part of our everyday auditory experience, it is a given that the current urban soundscape has primarily become a digitalized one. One question that a "soundwalk" poses is: what does listening/hearing mean in a predominately digitalized modern environment?

It is to be noted that there are works of sound art which can be described as soundwalks using "digital ears" and could therefore be considered as new guides or companions to the soundwalk concept, like works that involve walking through and listening to urban areas while employing headphones and/or body mounted speakers. Examples of such works include: Janet Cardiff's "The Missing Voice- Case Study B" (1999), "Insideout" (1999) by Carsten Nicolai, and Akitsugu Maebayashi's "Sonic Interface" (1999). In works such as these, the intention of the artist is only one constituent element, which would also include the various surrounding environments, and may never be complete, for this is an "art of the moment" and thus the surrounding environment becomes a kind of museum, of which each artist and/or participant takes on the roles of curator and visitor.

Due to the growth of real time processing technology, various sensor technologies, and the ongoing miniaturization of computers, works increasingly unified with the environment will continue to appear well into the future. In what sort of way will people enjoy their urban soundscapes in the future?

1   Introduction

"Listening with headphones: reality becomes dream."

This is a poster copy from a movie which was named "Morvern" when it was shown in Japan. In the story, by result of listening to music with a Walkman, a girl, whose name is Morvern, did not report suicide of her boy friend to the police, passed a telephone box, and left town. In many parts of the original novel, artist names and track titles of the music which she was listening to at that time, and a list of the contents of the tapes which she had prepared and edited before doing anything are given. (Warner, A. 1996) Needless to say, with the example, living with and listening to music with a Walkman anywhere anytime is the usual lifestyle of a young person.

When people walk around town listening to on a walkman, it is a type of sound art. When we do this, we walk around town with extended ears, adding or modulating elements of a traditional sound walk. How will the experiences of these art works read as a map of the city and modern society? What does listening mean in the sound environments of a modern city? With three concrete works as guides, with taking up some spots from various places on the map, I will consider issues that "an ear" and "listening" faces in a multilayered modern city.

2   Walkman and modern society

The Sony Walkman, symbolic of various cultures within a city, can be viewed as a removable private space within a public space, creating a double soundscape - a soundscape of a city and a soundscape of the mind (du Gay, P. et al. 1997). The Walkman also has widely become more like clothes or clothing accessories instead of a device to exchange audio information. Some people feel "naked" or vulnerable without their Walkman, even if listening to music is not the main reason for wearing them. So, although the Walkman is a device intended primarily to receive musical information, society has adapted it to use for other purposes (Nakano, O. 1997).

But on the other hand, how can some people in today's society take off the Walkman? For example, the district of Shibuya in Tokyo is very noisy with the sounds of mobiles, BGMs from television screens and shops, traffic jams, loud night club sounds and

the murmuring of people attempting to talk over it all. Some people insist that a Walkman serves as a kind of preventative measure or defense from the noisy situation. A town is abundant with many sounds and the sounds are information, thereby showing that a lot of information surrounds us.

Osamu Nakano is a Japanese sociologist who has conducted research and interviews regarding media and it's effects on the daily lives of young people in the multimedia era. Nakano points out that plural simultaneous exposure to media as being one of the generation's characteristics, for example: exposure to 3 kinds of media at the same time like "radio, tape, TV". He found that, the lower the age range, the higher the tendency and pointed out that although a person would have several kinds of media on, most of the media would be akin to "a circuit coming on without a signal" (Nakano, O. 1997), in other words, although a person has several kinds of media on at any given time, their attention (the signal) is only focused upon one of them (a circuit).

The meaning of music using glitch and noise has changed from its beginnings. In the times of Luigi Russolo and John Cage, it was an experiment and artistic reform to use noise in music, however, now it is a genre of music, and one that can be created and listened to without deep thinking or conscious intent. Merzbow, one of the most well known sound artists working in the music genre known as Noise, answered a question about the difference between young artists and himself, by saying, "for most artists of the new generation that handled 'noise', the 'noise' existed as one form of music or one circumstance of a sound phenomenon already from a beginning. Therefore I think that the music environment in which people feel comfortable to use 'noise' as one form like 'groove', is not mysterious at all" (SlideLab, 2001).

In a world where noise is abundant, young generations, well accustomed to it in their daily lives, from birth, have a different sensory perception than previous generations. Citing Walter Benjamin, Norihisa Kurenuma commented that loud and aggressive rock or pop music are a kind of "shock treatment" or "psychological preventative measure" in a world oversaturated with noise (Kurenuma, N. 2001), and it appears to be an unconscious coping mechanism as well. How would such a generation process the sound information of a soundwalk of their day to day situations?

3 About the works

We can regard works of sound art such as one, for example, in which people wearing headphones are walking inside of a town, as headphone navigated soundwalks. To serve as detailed examples of such works, we will now look at three works previously mentioned in this paper: "The Missing Voice (Case Study B)" by Janet Cardiff, "insideout" by Carsten Nicolai, and "Sonic Interface" by Akitsugu Maebayashi.

3.1 The Missing Voice(Case Study B)

"Janet Cardiff's The Missing Voice (Case Study B) is part walking tour, part historical account, and part stream-of-consciousness narration leading you on a disorienting journey through the inner cityscape of East London." "Starting at the Whitechapel Library, where upon receiving headphones and a disc player, you follow the instructions from the narrator on the disc. The voice-over guides you to the crime section of the library, asks you to read excerpts from books, and leads you out of the library and onto the street. There, you follow instructions that take you through narrow alleyways into Brick Lane, past the old Jewish quarter into Spitalfields, and after pausing at the garden steps of a church, drops you off at the Liverpool Street tube station, where the piece ends; leaving you to puzzle your way back to the library, where the piece started." (Janet Cardiff's web site)

From the experiences. Even with a map, in the place where we have visited first time, it is difficult to walk along a instruction of words as sound. The story is gone without us, and we lost our road. Middle of the walking, I encountered some people, who departed earlier than me, were losing. On the other hand, as an example of a moment when a story and sounds meet each other with good timing, when I walked in the Indian street, I experienced that the narration spread with Indian music and a field recording sound of a crowd. At that time, I felt the touch of air and a fragrance in India, which I never felt when I walked in the same area later without the headphone system.

3.2 Insideout

Figure 1. A sketch by Carsten Nicolai for "insideout". Copyright by "Empty Garden" exhibition at Watarium Musium (Tokyo, Japan)

Carsten Nicolai's "insideout" is a work to walk in a town with shoulder speaker listening BGM composed by him." This works starts when you receive this speaker at the reception desk of museum and leave for the garden.... As this sharp sound start to be mixed with ordinary noise and scenes in the city, this short walk seems to lead us to some unknown place just like in a science fiction film." (Watarium Musium's web site)

Figure 2. "insideout". Copyright by "Empty Garden" exhibition at Watarium Musium (Tokyo, Japan)

"Insideout" was one of the works in a group exhibition named "empty garden". In the walking program, participants watched gardens as works made in the town and works in a museum. Sounds from the environment and the CD is mixed in the air near one's ears in order to put on a shoulder mount speaker. This shoulder speaker was originally developed for computer game to feel the sound through bodies. His sound from the CD is minimal techno with repetition beat sometime sounds like a machine sound or a voice of an insect.

From the experiences. Five minutes passed from a start of the program, my ears became out of focus from a sound of a CD. In the way, I forgot existence of the speaker and had entered a shop. Soon the shop person came from me to stop the sounds. I experienced that the BGM from the CD and sounds of a circumference, a figure and a ground, became vague and mixed each other. Also my ear became opening state for a while after having taken off the headphone.

3.3 Sonic Interface

Akitsugu Maebayashi's "Sonic Interface" is " the auditory filter which modifies all the sound the subject encounters. Equipped with this 'extensions for ears' made of a Powerbook G3 (MAX/MSP installed), headphones and microphones, the subject is invited to explore the town. Changes in a sense of time and place caused by this equipment will make the subject conscious of exchanges between the body and the environment. " (Akitsugu Maebayashi's web site) "Sonic Interface" consists of 3 programs with

realtime prossesing by Max/Msp, which are "Growing Delay", which is delay time getting longer and longer gradually, "Mosaic", in which sounds get fragmented and realtime re-mix or cut-up effects are done, and "Overlap", in which sounds get piled up and the former sounds never disappear but sticks.

The subject walks with a navigator for safety reason. Walking paces are entrusted to a navigator and a subject, but the program was made with thinking if they may come back to a meeting place just after when an effect is over.

Figure 3. "Sonic Interface" in Akihabara. Copyright by Akitsugu Maebayashi

From the experiences. I participated the work from two situations - as a subject and a guide.

At first, here is an experience as a subject. I fall in the world of the illusion that a usual town was absorbed by screen. I felt the sense becoming a participant of a game in virtual reality space. Which I could see was everyday thing, but a feeling of reality was very thin. I felt sense of incongruity by a real sound for a while after having taken it off and movement of a body and an ear seem to have become separate.

Next, here is an experience as a guide. Masamitsu Yamane who was one of the guides told that "when the subjects mounted the device, at beginning, they could not understand about relationship between what they were listening and the real environment. But once they were used to the system, they began to do an act feeling and making sounds like crapping hands, jumping, and singing. There were many people who approached sources of sounds." Adding from my experiences as a guide, the subjects became not to able to do conversations because of a gap between mouth movements and words as sounds. Also, there were many people who forgot an existence of crowd, and entered the world of inside of their minds.

4 Considerations about the works

I will now consider Janet Cardiff's "The Missing Voice", Carsten Nicolai's "insideout", and Akitsugu Maebayashi's "Sonic Interface."

4.1 Headphones as a navigator in soundwalk

The works can be considered as soundwalk using headphones as a guide rather than a score. In this situation, direct instructions are given to the ears as sounds. In "The Missing Voice", words as sounds are given as a guide and to influences the senses of smell, touch, and sight, in addition to listening. Because the program of sounds is recorded in the CD, each time we can listen the same guide or sound in the program. "Insideout" is also same sound repeated in each time, and it seems a same type of walking of "The Missing Voice". However, with shoulder speakers, sounds from the CD player and environment mix before reaching our ears, and construct different sounds each time we participate to the work.

The CD player and sound guide do not wait for you. Sounds and words are spread along a time line, which was constructed beforehand. Furthermore, in case of "The Missing Voice", it is decided which word you hear at which place by the program. On the other hand, in the case of "insideout", there is no such interaction with a specific place, and we can hear the sounds in any places we would like. The case is similar for "Sonic Interface", which processes sounds of circumferences with a computer in real time.

4.2 Reading a town through headphones

Sounds from headphones allow the listener to experience daily life as a virtual world and modulate psychological constructs. However, it is not particularly new with an example of a suikinkutsu of a Japanese garden, in which the sounds have already made virtual space before the development of modern technology, or a drum in war used for controlling psychological situations. The most important character of headphones is that they provide "removable private space in a public space." A part of "me" is always intermingling with the larger context - the town. Headphone's function as feed back devices with environment within ones own ears.

Carsten writes about "insideout", "As this sharp sound start to be mixed with ordinary noise and scenes in the city, this short walk seems to lead us to some unknown place just like in a science fiction film." (Watarium Musium web site) And Maebayashi writes about "Sonic Interface", "Changes in a sense of time and place caused by this equipment will make the subject conscious of exchanges between the body and the environment." (Akitsugu Maebayashi's web site)

These works are made only with sound, but we use the five senses to participate with them, along with the environment that we experience through the five senses which will feed back to our bodies. The "double soundscape" that a Walkman forms creates feedback from the inside of mind in addition to feedback from the outside world. With the devices, an experienced person discovers his own answer of how to play and listen. At the same time, the discovery is an expression in his mind of awareness. Of course there are people who cannot enjoy these works and become skeptical. One of the participants of "Sonic Interface" was unable to enjoy it because an effect of a "Max/MSP patch" was too simple. However, it lets him experience how he hears sound. Walkman is "one part of ego, identity", and "a thing transmitting communication with the outside world." It is "a partner of communication at the same time to be a result of expression", and "because it is self expression, 'the eyes of other people' are indispensable as psychological meaning." (Nakano,O. 1997) Morvern, in the opening of this paper, prepared every time an original sound track before doing anything. It vividly expresses the situation to wear music as one changing clothes in accordance with self expression.

An example of work, which wears sound, is the work of Yui Miki and Felix Hahn. The module named "ask02" makes sounds by reacting to conditions of a light and can be enjoyed by recombination or customization of elements as in clothing accessories. " Our environment is filled with noise. The border between private and public has vanished........ Properly connected each acoustic Module gives subtle signals and pulses to the environment. The surrounding light triggers the sound of the module. Changing light condition affect the quality and level of the emitted frequencies. " " ask02-sets are assembled on a matrix-mount. There are body and wall mounts. They allow either to wear the ask02-soundlogo as street wear or to use it as a stationary acoustic sculpture." (ask's web site)

There are many researches about wearable and ubiquitous recently. Like a cellular phone connect to network any time, these devices will become a new kind of network also available at any time. Like a bell of a mobile suddenly ringing, many types of information will jump from various places suddenly. The world becomes more schizophrenic. A space becomes nearer to a body, and a body becomes nearer to a space. Michitaka Hirose, Japanese researcher of virtual reality, mentioned that "space" and "brain" are at a position of opposite poles, therefore they have close to each other relation. He introduces the words of Alan Kay and Takeshi Yoro, who is Japanese anatomy researcher, about relationship between space and brain. - a next goal of computer technology is intimate, by Alan Kay, and artificial air space is expression of our brain itself, by Takeshi Yoro. (Hirose, M. 2002)

Although Digital technology is just a part of our life. "In a soundscape of the modern city and society, peculiar characteristic things are that the sound environment transmitting by media like radio or telephone is to grow extremely various filled up. A soundscape through this new media intersects a traditional soundscape variously, gives influence there, and is concluded while unifying it to untie it - It is nothing but reality of a soundscape of the modern society." (Torigoe, K. 1997)

4.3 Art on the town as a stage

In the sentences about "insideout", Carsten Nicolai pointed out an idea concerning art as an alien substance and awareness about usual living environments. " I see my work as a disruption of everyday life, something which makes the viewer start to pay a bit more attention to what surrounds him and to use his own sensitivity."(Watarium Musium web site) If we do the works in forests, what kind of experience will we feel? What kind of meaning will be created? In addition, there is a point that we can enjoy the works with headphone in towns smoothly because we are used to a Walkman. If we experience them the time just after a Walkman appeared or the world of 3001, meanings and experiences of the works will be replaced. On the other hand, the spectators walking in a town with the works are existence to be "found" to a general walker. In "Sonic Interface", some spectators did very strange acts because they were absorbed in their sound world. We can consider them as the non-everyday existences and alien substances in the town.

Toshiya Yoshimi suggests that one of characteristics of Shibuya as big town is a place in which various modern roles watch and be watched (=

play). With an example of a strategy of PARCO, which is one of the most fashionable building in Shibuya, he shows that companies did strategically young-person-based town planning as the stage to express "me". PARCO said, "Modern city life is exactly expansions of selections of spaces and scenes on the basis of all TPO." A town is a stage, a fashion is a direction, and the leading role is "me". Devices like Walkman "functioned as the device which would transmit the world of a community as individual stories." (Yoshimi,T. 1987) In the three works in this paper, the big city, Tokyo and London are set as the each stage. The works can be said stories which is done on a context of each town. The stories of each the spectators are made by walking and listening around towns with headphone.

In the works, the intentions of the sound artists are only one part of the constituent elements of their works. The various surrounding environments, including soundscapes, are also integrated into the work. Without the active participation of the living members of these environments, such works may never be complete, for this is an "art of the moment" which can react to and change with the environment. Thus, the environment itself becomes a kind of museum, and each of us takes on the dual roles of curator and visitor.

However, a story which is played in there, is a small story, not a big one. In the theatrical society, people continue consuming personal small stories on a city as a stage. (Nakano, O. 1997) Applying this thought to music, there are shifts from "orchestration" music to music without a conductor. The individual based media device like headphones vividly shows this.

4.4 Self-Education

In the works, an artistic expression exists in merely giving an opportunity for spectators to create meaning through the creation of story based on their own experience of the work. In this situation, the art work which "goes over" the expectation of an artist is created by the spectators. It is the art along side the participant's experience which will develops an autonomous work of art. Hence there are as many version of the work as the number of participants who experiences them. The artists do not make a work itself, but make the systems, devices, interfaces, and tools which the spectators utilize creating each original work. For example, "Sonic Interface" defines itself as "a filter", not a work but a tool. Also if you purchase CDs of "Inside out" or "The Missing Voice", you can experience the work by yourself even in other roots.

"The times of self-education" is a book which introduces collaborative art projects and asks

questions such as "what it is that a person educates himself, In other words, what self education is." The book focuses on two key points, "artless and deconstruction of art". In a preface of this book, Tadashi Kawamata, a modern artist, writes that " Surely, we can consider the work which an artist expresses as a "creative" work, and call a person who do an art full expression as an "original" person. However, a project of this book considers personal trial and error itself as "creative." - experiencing "an event" which happen in a field of a project, finding one's own sense, making an antenna for senses, knowing how to joint with other people, and doing self education using entire body. The education process leaves old relation "taught / to teach" distantly. Will not the times to call such a serial process itself 'a work of creation' be so far? " (Kawamata,T., N.Paley, and T.Kumakura. 2001)

This word can be applied to traditional sound walks and the works covered in this paper. In these works, the power of creativity is expressed not only by the artists, but also by the participants.

4.5 Listening without focus

Related to the sense in "insideout" that BGM and environment sound are mixed in, I will introduce words by Yoshihide Otomo, Japanese free improviser, about the hearing without focus. Otomo writes about asking about non-recognition listening from an experience in a workshop with Yuji Takahashi. At first in the workshop, they named a sound from far away and recognized each one. Then, they listened a sound of the whole environment for a long time without naming or concentrating on one particular sound. In that state, Otomo wrote, "the meaning of the sounds that were listened separately began to melt, and the border between sounds became vague." He said, "sounds that have never been able to be listened to could be heard. And more various sounds can be listened to with this kind of listening than with more focused listening." (Otomo, Y. 2002)

Otomo believes that there are two types of listening - one is an aware listening with focus, and the other is an unaware listening, feeling whole sound without focus. And, each type supports the other and enables hearing. At a point when we grasp only the sound that we recognize, because some kinds of listening have not been experienced, consciousness does not go in other sounds. We also hear sounds that we cannot recognize, and it influences us to unconsciously recognize sounds. In fact, by non-recognition listening, we notice that we pull forcibly a border between sounds we understand and sounds we dont recognize. Because of the border, our brain decides not to hear a vague sound, and we made a sound map in our brain different from the sound that we actually heard. So, we hear many more sounds

than we recognize. A human beings hearing is different from human beings recognition. Because of such a thought, Otomo says that he consciously tries to do non-recognition listening in recent performances.

James Gibson, who is a psychologist and has proposed an affordance theory, pointed out the simultaneous character of concentration and dispersion in sight. Relevance between Otomos belief and an issue about simultaneous character of dispersion and concentration in hearing is interesting.

Otomo can be categorized in a genre called "onkyo" in Japan. The Japanese word, "onkyo" means "importance on texture rather than construct." (Sasaki,A. 2001) In addition, after Xenakis, and partially because of progress in Digital Signal Processing technology, texture-based music has increased. R. Murray Schafer suggested that the situation that promoted a non-focus hearing increased after the Industrial Revolution and wrote that a soundscape researcher must not be confused with a group and each sound. (Schafer,R. M. 1977)

On these topics, a more detailed study is needed. Though there isnt any concrete logic on the issue yet, using this method of hearing and capturing sounds as a group, cant we hear the sounds that we don't usually hear with focus hearing? It might be added to a method of the new sound education that was different from a traditional method of concentrating listening - like "Stop name the sound", "Stop concentrate on a sound" and "Dissolve oneself in a crowded sound environment."

4.6 After taking off headphones

Sound works can open ones ears for hearing sounds not only during the experience of listening, but also after it. In the case of headphones, because it is accompanied by the act of mounting and unmounting the headphones, it is particularly.

In the program of "The Missing Voice", we came back to the starting place without headphones. In "insideout", we walked both outside and inside of the museum with headphones. These programs are regarded as an idea for awareness about sounds with and without using headphone. In addition, in "Sonic Interface", for a while taking off headphones, I felt sense of incongruity and the discomfort with the usual sounds around myself.

5 Conclusion

"Let's take off the headphones blocking up your ears, close your eyes, and walk in a town. At that moment, anybody should entrust their position to the world noise. And sounds of the city begin to be

bared. The soundscape does notation for the imagination of a new sound environment......... It is a double notation as a map and a score." (Igarashi, T. et al. 1995)

How does a soundwalk with a digital media guide read a town as a map and a score?

In an essay, "A Lesson of Realism", Masato Sasaki, who is one of the most famous researchers about affordance theory in Japan, described a blind person discovering a sound through walking training. After the description, he said that "Real things are investigated through an act, and people look for it around them when if one becomes better at acting than before. There is a group of affordances in environment as resources of an act from the beginning. "Living" is that which expects a reality which is latent, not named, and with which I am to utilize it so that we will live , and that it is for it to become possible by some acts to discover it." (Sasaki, M. 2000)

It can be said that life is like a treasure hunt of information through living in each environment. People will find the sound that is necessary and real for each of them in the world buried among sounds. And, found sound, or information, express the mindscape of each of them. Not floating unconsciously in overflowing sound and information, but developing an attitude that pursues thinking on ones own and selecting by oneself like surfing information, walking among sounds with an open ears with a freedom to play with sounds.

6   Copyright Notices

7   Acknowledgments

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