Possibility of Dialogue across Boundary Wall: Embracing Pain of Alienation

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A Doctoral Dissertation Submitted to the Graduate School of Fine Art, Tokyo University of the Arts

> Tokyo, Japan July 2015

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Introduction

I was born with a hearing loss¹ in Japan. Therefore, to understand words, I routinely focus on picking up very slight noises and voices as well as reading the lips and body language of people that I have in front of me. Until I reached adulthood, I had grown up among hearing people without using any Japanese sign language, which made it hard for me to communicate with others and to get information. Furthermore, it took me quite a while to understand and speak the language. Therefore, sufficient communication with other people has been my long-cherished dream. In other words, my concern lies in the possibility of dialogue across the "wall-like barrier" ² separating people from each other. At the same time, I have always thought about the enigmatic theme "life and death" as a clue that leads me toward the collective unconscious often compared to a rich vein. Exploring the world of life and death was for me a step to overcome the wall between others, consequently, to explore the soundless world, too.

My pain of alienation caused by the difficulties of dialogue was not only extroversive but also introversive, leaving its traces on my internal world. In the days of silence, my inner dialogue was, first, submerged beneath the unconscious, and then pushed outward in the form of mythological figures or vaguely-outlined fog-like figures. The reason why I chose myth as a theme is not completely unrelated to the Bible that I was familiar with from my childhood. I started painting "the pain of alienation" in my art work because describing the alienation was equivalent for me to describing the death to depict life, as is the case with describing shade to accentuate light. Is it then possible to reconcile the conflicting worlds and find a way to coexist?

Human activities have physiological instincts to ensure diversity from multiplicity on one hand, but they also have instincts to create uniformity among various kinds of things. The pain of alienation due to this conflict has always seemed to me like death. Thus, it is impossible to surmount the boundary with others, however hard we try. With

¹In order to describe the disabled, new terms such as 障がい and 障碍 are recently promoted as an alternative to the traditional term 障害(even though all three are pronounced the same, 'shougai', 害 has a meaning of "harm"). This study uses 障害. 障害者, a disabled person, refers here to one who shares obvious characteristics that may impair social activities.

 $^{^2}$ 障壁[wall-like boundary] is a coined term created by the author to describe a psychological wall installed along the boundary.

the purpose of surmounting this boundary and, consequently, managing my identity from a broader point of view, I went to study to the United States, a multi-ethnical society where the ADA (the Americans with Disabilities Act)³ is in effect. This experience gave me an opportunity to get an understanding of the bedrock of Japan as well as my identity both in Japan and the world, which greatly influences this discourse.

Chapter 1 will discuss "auditory and visual information processing". In my view, the auditory perception affects spatial and colour perceptions. It is thought that the meaning of external information is perceived only after passing through different sensory areas and being integrated in the brain. Visual and auditory perceptions closely influence each other, and, in the case of normal development, speech cannot develop without the integration of different sensory functions, which allows the development of high-level thinking and abstract recognition⁴. The development of language and thought is reliant on the stable connection between auditory and visual perceptions⁵. On the other hand, it is scientifically proven that there are some differences in the brain functions including the brain's functional layout between normal and hearing-impaired people. Thus, Chapter 1 will analyse, with the help of cognitive science and artists' views, my personal experience regarding changes in spatial and colour recognition. In my case, these changes were caused by the integration of auditory and visual perceptions as a result of a certain recovery from hearing loss that took place after the cochlear implant. Additionally, Chapter 1 will analyse my language-related inferiority complex that is believed to induce my secondary disability due to hearing impairment.

Chapter 2 will argue "the pain of alienation". It is by no means easy to share the internal pain because pain is highly subjective experience of perception. The most recent medical research, however, shows that psychological pain and physical pain are both

³The United States are the first nation that implemented non-discrimination laws for the disabled, enacting the ADA (the Americans with Disabilities Act) in 1995. The ADA made a strong impact around the world, showing that the disabled are no longer the object of charitable pity but a citizen with human rights. In this sense, the ADA can be thought as the Declaration of Independence for the disabled.

⁴Cytowic, RE and Eagleman, DM. No no Nakano Mangekyo: "Kyo-Kankaku" no Mmekurumeku Sekai [The Man Who Tasted Shapes]. Tokyo: Kawade Shobo Shinsha. 2003. 257.

⁵Dehay, C., Kennedy, H., and Bullier, J. "Characterization of Transient Cortical Projections from Auditory, Somatosensory, and Motor Cortices to Visual Areas 17, 18, and 19 in the Kitten". *J.Comp. Neurol.* 272. 68-89. 1988.

perceived in the same areas of the brain. If this is the case, why does widespread discrimination still exit on the grounds of the disability and racial difference in this world? How can we overcome the boundaries between people discriminating and victims of discrimination? Furthermore, this study will also explore how the disabled in the United States overcome their individual pain and find the way of symbiosis.

Chapter 3 will analyse "collective unconscious". This is because a memory shared by people is believed to be fed back to the aggregation of the unconscious, making an influence on one's own creative activity. This chapter will examine what it means to be human from the perspectives of myth and psychology by referencing Sandplay therapy and myths that I familiar with since childhood.

Chapter 4 will explain my doctoral art work and raise questions about the pain of alienation, by exploring expressions to link the internal and external worlds. However, new methodology to overcome the wall separating others will remain.

1-1 Soundless world

(1) Soundless world

I used to wear hearing aids because of my hearing disability since birth. Therefore, I oscillated between two different worlds – the near soundless world and the soundless world. Figure 1 is an audiogram that measures the level of various sounds, showing the hearing level in decibels (sound loudness, dB/decibels⁷) correlated with the frequency (sound pitch, Hz/Hertz). The hearing level of normal ears is between 0 and 20 dB, and the threshold of normal hearing is defined as 0 dB^8 .



Fig.1 Loudness (dB) and pitch (Hz) of sound

The ranges in pink marked by the author are identified with the soundless world (above 100dB). (Shiroma, M., Ujita, N., Iwaki, T. and Nakamura, J. *Jinko-Naiji Soyosha toNnanchoji no Gakushu: Katei de Dekiru Drill Book* [Learning of Cochlear Users and Hearing Impaired Children: Home Drill Book], Tokyo: Gakuso-Sha. 1996. 10.

⁷Unit used to measure the physical intensity.

⁸Okamoto, M. Kodomo no Nanchou [Hearing Impairment of Children]. Tokyo: Triangle Bunko. 1995. 38.

I started to wear hearing aids when I was a one year and six months infant old due to severe hearing loss, with the average value 80 to 90 dB (500Hz to 2000Hz⁹). However, hearing aids did not allow me to understand speech well, but only amplified low-pitched sound, or the only sound left in my ears. Nevertheless, in spite of my efforts of picking up distorted sounds and reading lips, I was identified as having a profound hearing loss 90 to 110 dB (500Hz to 2000Hz) at six years old, and then later, my hearing has decreased with the age. After experiencing the soundless world¹⁰ for several years, when I was in cram school, I was diagnosed with a complete hearing loss 120 to 130 dB or total deafness, and the hearing aid transmitted to me only the slightest vibration through the ear drums (according to medical standards, total deafness is defined as a hearing loss 100 dB or more in both ears in which sounds are perceived only through pain sense and vibratory sense).

After completely losing my hearing, I came to realise in my cram school days that the sounds may affect the visual stereoscopy because I noticed there were some differences between me and other students in the placement of shadows of plaster cast drawing and still-life painting. My hearing loss not only deprived me of hearing perception alone, but also spatial recognition and thinking power.

(2) Integration of vision and hearing

I have a sensation that auditory perception could make a big impact not only on sound information but also on colour and spatial recognition. I received the cochlear implant¹¹ surgery two years ago (2012). I made up my mind to do it because, first, it was absolutely necessary for me to eliminate the endless buzzing sound in the brain and, second, it has increasingly becoming difficult for me to communicate with others year after year. Dialogues in a quiet environment improved after the implant. It is considered that the sound perceived through the artificial cochlear is quite different from the sound

⁹Unit used to measure the sound pitch. The average hearing level necessary to distinguish words is between 500 - 2000Hz.

¹⁰In my opinion, the hearing aid user lives in 'silent world', while deafened people in 'soundless world'.

¹¹An electrode implanted in the inner ear, converting sound signals into electrical signals. These electrical signals are sent through the nerve to the brain that recognises the signals as sound.

that hearing people hear. However, by knowing what sound is, I could objectively learn what silence is, even though that seems a bit contradictory.

My doctor informed me before the cochlear implant surgery that newly acquired auditory perception would bring changes to the brain when I begin to hear. For example, after returning to Japan from studying in the United State, I noticed that a suiboku-ga (ink-painting) seemed different from when I used to see it for the past seven years, that is, the painting had different three-dimensional depths that I did not see before. The difference was enormous for me. It can be compared with the difference between the landscapes described in two-dimensional Ghibli animated films and the three-dimensional "Toy Story" (1995-). This is just one example of experience that made me realise about changes of perception attributed to sound.

Now, let's examine the relationship of human visual and auditory perceptions. The McGurk effect reported in the 1970s' is one of the typical examples about the integration of auditory and visual information. The McGurk effect is a phenomenon that illustrates the transformation of sensory information. The effect is demonstrated in the video that shows when subjects of the experience see a speaker say /ga/ combined with audio /ba/, they perceive neither /ga/ nor /ba/, but /da/. Thus, phonological perception is influenced not only by auditory perception but also by visual information such as speaker's mouth movement¹². Even normal hearers unconsciously distinguish words with the help of the mouth movement, which indicates that the perception of words is influenced by visual information, too. The further experiments on information integration between different perceptions revealed that hearing information can affect the visual information and vice-versa. Today, it has become clear that when processing information, the brain uses not a single area but activates simultaneously several sensory apparatuses best suited for specific information¹³. The meaning and content of speech information input through visual and auditory perceptions are understood only when they are integrated in the brain. In a noisy café, for example, the voice can be easily masked by ambient noise louder than conversing voice. In such circumstances where the voice is hardly recognisable by auditory perception, the movement of speaker's mouth is a great help to understand words. It is

¹²McGurk, H. and MacDonald, J. "Hearing Lips and Seeing Voices". Nature. 264. 1976. 746-748.

¹³Kashino, M. Oto no Illusion [Illusion of Sounds]. Tokyo: Iwanami Shoten. 2010. 93-102.

considered that we integrate in the brain visually perceived information with a part of information acquired from auditory perception.

(3) Spatial perception

Spatial recognition of normal listeners uses simultaneously "visual spatial perception" or the vision similar to a 180-degree immersion theatre screen and "auditory spatial perception" or three-dimensional recognition from all directions in space: back and forth, right and left, and up and down directions. These two perceptions work closely together. It is known that "auditory spatial perception" may change according to information from "visual spatial perception"¹⁴, and it is also supposed that "spatial perception" of hearing impaired listeners with less auditory information is different from that of normal listeners.

It is scientifically confirmed there are some differences in brain function between hearing-impaired and normal listeners. In the former case, the temporal lobe, the core auditory area, is not activated because their auditory information is scarce. It is reported that hearing-impaired listeners are thought to have good kinetic and peripheral vision because their auditory area in the temporal lobe is converted into the visual one, which makes their brain more atypical, visually-dominated compared to that of normal listeners¹⁵. Furthermore, it has also been known that there is a great difference in two optic pathways processing visual information (Figure 2) between hearing-impaired and normal listeners, and the difference is more notable in "dorsal optic pathway" (spatial information processing) than in "ventral optic pathway" (colour-shape information processing)¹⁶. It is supposed that the information system related to peripheral vision is normally processed through "dorsal optic pathway", but in the case of the hearing impaired, this kind of information is processed in the auditory area in the temporal lobe, which may result in the modification.¹⁷

¹⁴Watanabe, S. *Chonoryoku: Chiisana No ni Himerareta Kyoi no Noryoku* [Brain Power of the Bird]. Tokyo: Kagaku Dojin. 2010. 120-121.

¹⁵Lomber, SG., Meredith, MA. and Kral, A. "Cross-Modal Plasticity in Specific Auditory Cortices Underlies Visual Compensations in the Deaf". *Nat Neurosci* 13. 2010. 1421-1427.

¹⁶Suzuki, K. *Shiakakusei-Ninchi no Shinkei-Shinrigaku* [Neuropsychology of Visual Recognition]. Tokyo: Igaku Shoin. 2010. 124. ¹⁷Scott, GD., Karns, CM., Dow, MW., Stevens, C. and Neville HJ. "Enhanced Peripheral Visual Processing in Congenitally Deaf

Humans is Supported by Multiple Brain Regions, Including Primary Auditory Cortex. Front Hum Neurosci. 2014.



Fig. 2 Information flow of visual perception (Fukunaga, A. Y*okuwakaru No no Shikumi* [Easy Way to Brain Study]. Tokyo: Natsume Sha. 2006. 96.

Astronomer Henrietta Swan Leavitt (1868 - 1921) is an example of persons who have excellent ability of "visual spatial perception"¹⁸. Being hearing impaired, she was capable more than anyone else to read the features that appeared in the photographic plates, and her ability allowed other astronomers to measure the distance between galaxies, resulting in the discovery of a comet by Edwin Powell Hubble (1889 - 1953).

When I had severe hearing loss, my "visual spatial perception" seemed to be horizontally stretched just like a two-dimensional theatre screen, albeit having a certain three-dimensional recognition. My spatial recognition was different from that of normal listeners because I used to recognise every object – including very simple ones such as a cup – like a scene cut from a painting. I made the most of my eye movements accompanied by face movements (dynamic vision and peripheral vision) to read lips and gestures of others, and these movements were indispensable for communicating with hearing people.

¹⁸Singh, S. Uchu Sosei [Big Bang]. Tokyo: Shinco Sha. 2009. 306-316.

(4) Plasticity of brain

The newly acquired auditory perception by the cochlear implant seemed to make an impact on my vision. Hearing people can perceive the presence of someone walking behind them by changes in the air-flow pattern produced by the sound wave¹⁹. I started to perceive the sign of presence. The newly acquired auditory perception by the cochlear implant awakened my "auditory spatial perception", giving me spatial perception through both auditory and visual ones. This explains newly acquired perceptions make an impact on high-level neural functions, which may change the reallocation of brain resources, and today there is some evidence suggesting the link between the cochlear implant and the brain reallocation²⁰. It is thought that auditory stimuli due to the cochlear implant bring about changes to the central auditory system even in adulthood.



Fig. 3 Changes of cerebral blood due to auditory word stimuli (Kaga, K., Aramasa, Y., Yamasoba, T., Ito, K., Akamatsu, Y., Uchiyama, T. and Tokumitsu, Y. "Yo-Shouni no Nancho ni Taisuru Jinko-Naiji Shujutsu ni yoru Chokaku to Gengono Hattatsu" [Development of Auditory Perception and Language by Cochlear Implant Surgery on Hearing-Loss Infants and Children]. *No to Hattatsu.* 2007.7.)

¹⁹Ifukube, Toru and Miura, Takahiro. "Shotai Kohen: Oto niyoru Kehai Sacchi" [Conference: Perception of "the presence of something" by sounds]. Technical Committee of Psychological and Physiological Acoustics. 2009.

²⁰Doucet, ME. Bergeron, F. Lassonde, M. Ferron, P. and Lepore, F. "Cross-Modal Reorganization and Speech Perception in Cochlear Implant Users". *Brain* 129. 2006. 3376-3383.

According to Figures 3 and 4, auditory stimuli due to the cochlear implant can activate different brain areas from those of normal listeners. The PET (positron-emission tomography) scans of Figure 3 and 4 reveal the difference of brain reactions relevant to the localisation²¹ of brain resources between normal and hearing-impaired listeners.²² The newly acquired auditory information by the cochlear implant may bring changes related to visual perception²³, which suggests that everyone sees the world differently depending on whether he/she has auditory information or not. My brain reallocation is thought to be different from that of hearing people due to congenital hearing impairment. Besides, in my case, the reallocation of brain resources took place as a result of the acquired auditory perception after profound hearing loss, and, consequently, my response to sound seems different from hearing people even today. The change in senses is very crucial for artistic activities. For this reason, the neuro-scientific approach is very useful in analysing my art work.



(Kaga, K., Aramasa, Y., Yamasoba, T. and Ito, K. "Yo-Shouni no Nnancho ni Taisuru Jjinko-Naiji Shujutsu ni yoru Choukaku toGgengo no Hattatsu" [Development of Auditory Perception and Language by Cochlear Implant Surgery on Hearing-Loss Infants and Children]. *Nou to Hattatsu*, 2007. 8.)

²¹Every area of the brain has its own function, e.g. temporal lobes for auditory perception and occipital lobes for visual perception.

²²Figures show the differences of the brain function between a cochlear implant user and a normal listener.

²³Moore, BCJ. Chokaku ShinriGgairon [An Introduction to Psychology of Hearing]. Tokyo: Seishin Shobo. 1994. 211-243.

(5) Literacy

Literacy refers to language skill involved in reading and writing. Language acquisition is a long-standing problem for the hearing disabled. The major problem for the hearing disabled is that they do have neither sufficient information nor learning opportunity to learn how to use the language in the proper mode, because insufficient linguistic input through the auditory pathways may inhibit the spontaneous speech-language acquisition.

Usually, Broca's area (Fig. 5 left) of infant's brain is activated only after Wernicke's area on the left brain hemisphere (Fig. 5, right) ²⁴ has stored approximately 3000 phonemes, and then children start to learn letters written on paper with the help of sound. Linguist Avram Noam Chomsky (1928-) developed a hypothesis that all humans are born with a universal grammar²⁵. By contrast, there is a critical period hypothesis for language acquisition²⁶, claiming that language acquisition is difficult after a certain age. "The wild boy of Aveyron", a feral child fostered by wolves in the woods in France, began to learn language at the age around eleven or twelve when adopted by a foster family, and could pronounce only several patternless words when he died at the age forty. Nevertheless, another likely explanation is that he was mentally impaired²⁷.



Fig. 5 Language-related brain areas

(Front (Broca's area) Back (Wernicke's area), Torii, N. *No no Seiki Suishin Kaigi: No! Uchinaru Fusigi no Sekai he* [The Brain! Into the Wonderland]. Catologue. Osaka: Yomiuri Shinbun Sha Osaka. 2006. 54 (left), 56 (right).)

²⁴Nakagawa, M. Mimi no Fucho ga NoMmade Damenisuru [Ear-illness Damages the Brain], Tokyo: Kodan Sha. 2009. 64.

 ²⁵Torii, N. Nou no Seiki Suishin Kaigi: No! Uchinaru Fusigi no Ssekai he [The Brain! Into the Wonderland]. Catalogue. Osaka: Yomiuri Shinbun Sha Osaka. 2006. 53.
 ²⁶Roland, ST. and Lenneberg, Eric H. "Biological Foundations of Language". New York: John Wiley and Sons, 1967. Reprinted in

²⁰Roland, ST. and Lenneberg, Eric H. "Biological Foundations of Language". New York: John Wiley and Sons, 1967. Reprinted in *Behavioral Science*.13: 493-495, 1968

²⁷Itard, JMG. Yaseiji no Kiroku 7 [The Wild Boy of Aveyron]. Tokyo: Fukumura Shuppan. 1978. 186-188.

In fact, hearing-disabled children all around the world need long term special education. Auditory function is widely believed to be associated with neither vocal nor language function because many people consider that reading and writing skills would be sufficient for the language acquisition of the hearing disabled without visual problems. In other words, hearing-disabled children are often believed to have no impairment in learning language because many people falsely conclude that hearing disabled children can see letters and sentences, which is sufficient for them to learn language.



Fig. 6 Difference in reading ability between normal listeners and hearing impaired children (Oda, Y. "Shichoukaku-Shogai Kyouiku ni Okeru Literacy to Shuwa-Katsuyo" [Literacy and Sign Language in Audivisual Education]. *Onsei Gengo Gaku*. Tokyo: National Institute of Special Needs Education. 2006. 296.) (Allen, TE. *Deaf Children in America*. San Diego Calif.: College Hill Press. 164.)

However, a 1991 study conducted by Stanford University, US, on academic ability related to reading ability of hearing and hearing-impaired children demonstrates a seven year difference in academic performance and 1-5 year difference in vocabulary during infancy, and vocabulary acquisition of hearing-impaired children slows down as the grade advances (ability in written language differs substantially between individuals)²⁸. The graph of Figure 6 (Survey on the reading ability of hearing-impaired children conducted in US in the 1980s) reveals a notable difference, suggesting that the development of reading ability stagnates at the age fifteen, although a certain language development is confirmed (Japan's National Institution of Special Education released a comparable result)²⁹. Language acquisition needs not only visual perception but also holistic integration of human senses (Fig. 7), thus hearing impairment can be considered a key factor that inhibits the development of literacy.

At the same time, it could be said that treatment and educational environment in childhood determines his future. Communication methods of the hearing disabled include lip reading³⁰, writing, and sign language, and, in parallel with these methods, hearing disabled children need special training to use the voice in the proper mode. Training of lip reading begins with mastering, first, every letter from /b-a/ to $/\lambda-n/$, and then the letter combinations by watching mouth movements. The next stage is to learn with the help of hearing aids how every letter sounds. Sometimes children use a candle flame to learn how to control airflow. During lessons, I had trouble in pronouncing /さ-sa/, /し -shi/, /す-su/, /せ-se/, /そ-so/ and /つ-tsu/, and these mistakes in pronunciation are still pointed out to me. Contrarily, sign language consists of expressive facial signals and simple words. Even though the finger movement can be an alternative of auditory perception, it is recommended for the hearing disabled to learn lip reading at an early stage, a method much more difficult than sign language, in order to live in society.

²⁸Yokkaichi, A. Literacy to Chokaku Shogai [Literacy and Hearing Impairment]. Tokyo: Colere Ltd. 2009. 89-116.

²⁹Oda, Y. "Shichokaku Shogai Kyouiku ni Okeru Literacy to Shuwa Katsuyo" [Literacy and Sign Language in Audivisual Education]. Onsei Gengo Gaku, Tokyo: National Institute of Special Needs Education. 2006. 296. ³⁰A technique of understanding words by watching the mouth movements.



Fig. 7 Understanding sentences is difficult if any of five mental activities lacks (perception of words, syntagmatic analysis, employment of already acquired knowledge, inference of the purpose of writer and confirmation of understanding). (Oda, Y. *Chokaku Shougai Kyouiku ni Okeru Literacy-kan no Hensen ni Kansuru Kenky: Aratanaru Literacy Gainen no Kochiku ni Mukete* [The Study on the Changes of View of Literacy in Education in the Hearing Impaired: In Order to Establish New View of Literary]. Tokyo: National Institute of Special Needs Education. 2002. 7.)

Speech area in the left half of the brain is said to be responsible for understanding of sign language as well as speech language³¹. However, the hearing-impaired who use sign language have a difference in recognition because they intensively activate the area associated with non-verbal communication (body language signal and facial expression). Areas involved in non-verbal communication are located on the right brain hemisphere, that is, on the opposite side of Wernicke area and Broca area associated with verbal communication on the left brain hemisphere (Fig. 8). In other words, sign language users intensively activate the right brain hemisphere responsible for expressing emotion and image.

In order to recognise the external world, it is required for every living thing to integrate information perceived by completely different and various systems such as hearing, vision, touch, taste and smell. For example, the integrated image of an apple can be recognised only when information such as red, round, crispy crunch sound of biting,

³¹Sakai, Y. Gengo no Nokagaku [Brain Science of Language]. Tokyo: Chuko Shinsho. 2002.

and smooth peel are perceived through various senses. It is the capacity for sensory integration that allows us to recognise the world as an integrated unity³². The integration is difficult only if a piece of information is lacking, which presumably leads to trouble in recognition.



⁽Torii, N. *No no Seiki Suishin Kaigi: No! Uchinaru Fusigi no Sekai he* [The Brain! Into the Wonderland]. Catologue. Osaka: Yomiuri Shinbun Sha Osaka. 2006. 58.)

I have always had communication problems due to my language barrier. When I had a conversation with hearing people, I used to compensate the missing parts of conversation with imagination. The false understanding and poor communication often resulted in misunderstanding and conflict in relationship with others. In the mainstream school, I had the difficulties participating in conversation and got information only through the chalk board in the class room. I hesitated to communicate my feelings due to my slightly unclear articulation and, consequently, I felt more and more isolated in classroom. Thus, my concern for communication made me anxious. I assumed that my experience is commonly shared with the hearing disabled.

The theme "the possibility of dialogue across the boundary wall – embracing pain of alienation" became a critical issue in that the relationship between "me" and "others" has always been a major question for me.

³²Cytowic, RE. and Eagleman, DM. op. cit. 261-265.

(6) Time and sound

While walking outside, I could get a sense of reality better in darkness than daylight. As the sun went down, the physical presence of things was gradually withdrawn, whereas the space began to extend in the faintest light. Such lyrical scenes in the faintest light were overlapped with the world of sound scarcely perceived through hearing aids. In my undergraduate years, I customarily produced an image of streets and cityscapes floating in the darkness of the night as shown in Figure 9. The space without contours expands endlessly, and the intersections and poles are staying afloat in light of the street lamps and light from the buildings.



Fig. 9 Nakamura, Y. Streets without roads. Colours on paper. 116.7×91.0cm. 2009

The painting shown in Figure 10 features a tree that I saw while walking along the river in sunset. In silence, a reflection on the water surface was changing, showing a wide array of expressions. The wavering image and sound overlapped each other. The work shown in Figure 11, which seems like abstract painting, features the shade cast by a willow tree. On a hot summer day, walking around the Shinobazu-no-ike pond, I couldn't help but express the residual image of a willow tree wavering and vanishing like in a heat haze. This work suggests that my adhesion in the residual image can be attributed to my impatience to understand sounds and words. The confusing fictional world that appeared in my work magnified my inferiority complex due to hearing loss as well as my contradictory approach of interpreting the world, that is, an approach of envisioning in my mind how hearing people perceive. As hearing loss progressed, the physical presence

of things seemed increasingly empty, and even silence seemed to be disappearing, which led me to the condition close to the so-called disruption of body and mind.



Fig. 10 Nakamura, Y. Sunset. Colours in paper. 116.7×91.0cm. 2007.



Fig. 11 Nakamura, Y. Shade of a willow tree Colours in paper. 116.7×91.0cm. 2007.

The work of Francisco de Goya (1746-1828) after his hearing loss are featured with darker tones (Fig. 12-14), and full of terrible darkness as if showing his desperate loneliness and anxiety. His work in that period seems to be out of focus, which may be derived from ambiguous space of his paintings.



Fig. 12 Francisco de Goya. Las Parcas. Oil on plaster mounted in canvas. $123\times266{\rm cm}.$ 1820-23. Museo del Prado.

It is thought that the loss of auditory information may develop an illusion as if the world were drifting away, while perception may be unstable due to the loss of the complementation of hearing and vision. I describe this situation as "paper-thin" because it lacks not only spatial sense but also time sense as well as reality. Spatial sense is tied to vision, while time sense to hearing, that means, auditory perception is indispensable for the development of time sense ³³. The loss of auditory perception leads to a loss of realistic time sense, which puts you in a dream-like state. According to Michael Ende (1929-1995), the memories hidden in the unconscious can transform into fantasy in the back of the mind, developing into an idea or image. It is said that the more transformed memories you have, the richer your life and future are³⁴. I believe, however, that memories can easily fade, if you don't have the world of sound.



Fig. 13 Francisco de Goya. The dog. Oil on plaster mounted in canvas. $131\times79 {\rm cm}.$ 1820-23. Museo del Prado.



Fig. 13 Francisco de Goya. Saturnus devouring his son. Oil on plaster mounted in canvas. $143.5 \text{cm} \times 81.4 \text{cm}$. 1820-23. Museo del Prado.

³³Nakajima, Y. (ed,). *Nancho-Nyuyoji noRrehabilitation* (rev.) [Rehabilitation of Hearing Loss Infants]. Tokyo: WHO collaborating National Rehabilitation Center for Persons with Disabilities. 2010. 4.

³⁴Koyasu, M. Ende to Kataru [Discourse with Ende]. Tokyo: Ahahi Sensho. 1986. 186-187.

1-2 Colour and sound

(1) Cross-model synesthesia

Cross-model synesthesia means "joined sensation" in which voice or music is not simply perceived as they are but also perceived as something concrete existing, tasted or felt in physical touch. Colour synesthesia is a form of synaesthesia in which a certain sound is associated with a certain colour. Wassily Kandinsky (1866-1944) and David Hockney (1937-) are known as colour-synesthete (Fig. 15-17). The Disney's film "Fantasia" (1940) was born out of idea to visualise abstract paintings by replacing sounds with colour images that are, according to colour-synesthetes, almost accurately illustrated. As shown in the examples of colour synaesthesia, colour sensory is easily triggered by sounds because the colour, when compared to other elements, is most commonly linked with other sensory forms in the unconscious areas of the mind³⁵.



Fig. 15 Wassiley Kandinsky. Quadrat, Oil on canvas. 73×60cm. 1927. Galerie Maeght, Paris.



Fig. 15 Wassiley Kandinsky. Painting with red spot. Oil on canvas. 130×130cm. 1914. Neuilly-sur-Seine, Nina Kandinsky Collection.

It was Johannes Itten (1888-1967) that first pointed out the relationship between music and colour in his colour study. According to Itten, in order to project the psychological and mental status into their paintings, Expressionist painters tried to

³⁵Cytowic, RE. and Eagleman, DM. op. cit. 19, 29, 113,131.

express the inner and mental experiences in various shapes and colours³⁶. Colours, therefore, have not only visual but also psychological and symbolic effects for artists, providing them a distinct personality.



Fig. 17 David Hockney., Hollywood Hills. Oil, charcoal and collage on canvas. 152.4×304.8cm. 1980.

I think that the stimuli by auditory information may influence our colour sense. This is because the human brain has the association part that integrates the area responsible for movement (motor area) to the area responsible for sensory (sensory area), and the association part also integrates information perceived by other sensory areas, motor areas and optic thalamic, which allows us high-level mental functions. One example of this is the Japanese expression "kiiroi-koe (yellow voice)", or high-pitched voice of children described as a colour yellow.

Colour and sound have seemingly no relation. However, if once reallocation occurs in the brain due to newly acquired auditory perception, it is no wonder that this movement would make an impact on recognition of colours. Auditory perception and visual perception are closely linked together as demonstrated by the McGurk effect, and they work together on the unconscious level for the majority of people. However, for some people, the link between auditory and visual perceptions is visibly manifested so

³⁶Itten, J. Shikisai Ron [The Elements of Color]. Tokyo: Bijutsu Shuppansha. 1971. 11.

much that it triggers specific colour and light display³⁷. In my case, the cochlear implant added auditory information to the visual perception or the single perception that I had before, which would bring about some changes on colours in the future.

(2) Experiment on colours by using sounds

Sound stimuli are a potent stressor for humans. Sound information perceived by humans is delivered via optic thalamus that relays sensory information from the whole body³⁸ to amygdala responsible for our emotions and hippocampus responsible for memory (Fig. 18).



Fig. 18 (Nakagawa, M. *Mimi no Fucho ga No Made Damenisuru* [Ear-Illness Damages the Brain]. Tokyo: Kodan Sha. 2009. 52.)

After my cochlear implant surgery, I tried to express my physical changes by depicting sounds as I feel them, as shown in Figures 19 and 20. In these paintings, I expressed the energy of people walking down the street, but it looks like a flood of sound and colour. Sound stimuli were so overwhelming for me that the colours became vivid,

³⁷Cytowic, RE. and Eagleman, DM. op. cit. 140-141.

³⁸Sakai, T. and Hisamitsu, T. (ed.). *Zenbu Wakaru No no Jiten* [Exhaustive Encyclopaedia of the Brain]. Tokyo: Seibi Shuppan, 2019. 13.

³⁹Nakagawa, M. *Mimi no Fucho ga No Made Damenisuru* [Ear-Illness Damages the Bain]. Tokyo: Kodan Sha. 2009. 52-53.

almost lurid. I used acrylic paint because I found traditional Japanese painting materials unsuitable to express city noise directly as it is. The dark-coloured space emerging through a crack in the middle refers to my internal soundless world. Two birds fusing in the middle show the conjugation of the soundless world and the sound world. I believe, as a result of the acquisition of time sense, this work shares something in common with Monet's work where the colour transition is successfully expressed by introducing the concept of a time-flow. This approach of self-contemplation brought change to my closed internal world. For a long time, I only focused on expressing the internal world, but now I appreciate change as a new step toward the external world.



Fig. 19 Nakamura, Y. Wandering in the sound flood. Acrylic, mineral pigments, dye and silver leaf on Japanese paper. 180.0×546.0 cm. 2013.



Fig. 20 Nakamura, Y. Sound of the pond, Acrylic and mineral pigments on Japanese paper. 180.0×546.0cm. 2013-2014.

(3) Tessai Tomioka

Tessai Tomioka (1837 \sim 1924) is a good example of painters whose colour sense was strongly influenced by auditory perception. Tessai suffered mild hearing loss because of his childhood illness. For this reason, he was forced to give up taking over his family business and went into study in his early teenage years. In early adulthood, he completely lost the hearing of his right ear, while his left ear could only hear very loud sounds.

Tessai, albeit not being a precocious painter, was renowned as a literati painter in his thirties and adopted various painting styles with age. In his later years, he established the unique painting style that is neither Japanese nor Chinese, and it is this style that earned him international acclaim⁴⁰. Furthermore, he was a great reader with distinct knowledge. Even though his work was created under the theme of Chinese classics, he extensively learned other styles including caricature, the Tosa school, the Rin-pa school, the Kano school, Suiboku Ga (ink painting) and Ukiyo-e (Japanese woodblock prints), and maybe copperplate engraving of the Netherlands, too.

I am particularly interested in Tessai's work named "*Abeno Nakamaro Meishu Bougetu-zu* (Abeno Nakamaro viewing the moon in Mingzhou, China)" drawn at the age of seventy-nine (Fig. 21). The work of Tessai is particularly highly appreciated for colours including malachite, lapis lazuli and vermillion. However, I think his uniqueness is the result of perception changes cause by hearing loss.



Fig. 21 Tomioka, T. *Abe no Nakamaro Meishu bougetsu zu - Entsu Daishi Gomon Insei-Zu* [The poet Abe no Nakamaro comtemplating the moon in Mingzhou- Entsu Daishi leading to a secluded life]. Colour on silk. Pair of six-fold screens. 170.3×375.0cm. 1914. Tatsumi Kouko Shiryokan. 33.

⁴⁰Tomioka, M. ed al. Tessai Tomioka. Kyoto: Kyoto Shinbun Sha. 1991. 344-364.

According to cognitive science, "ventral pathway" that sends visual information is responsible for red light, a colour sensitive to the form recognition/long wavelength and green light sensitive to the middle wavelength⁴¹.

Tessai in his final year

is thought to have 80-90dB hearing loss in one ear and more than 100dB in the other, judging from that he could only hear someone shouting. In the above mentioned work, the paths seem to be floating in the air, which makes the landscape multi-layered. Maybe this is because hearing loss made an impact on "visuospatial recognition ability".

I began to think that hearing loss of Tessai is intimately related to his identity, just as what happened to me. Although he seemed to devote his life to the activities he loved, he might have suffered alienation from society. The secluded life in the mountains was, maybe for him, the ideal world.

⁴¹Suzuki, K. *Shikakusei-Ninchi no Shinkei-Shinrigaku* [Neuropsychology of visual recognition]. Tokyo: Igaku Shoin. 2010. 122-124.

2-1 Pain of Alienation

(1) Pain

The pathophysiological classification of pain includes: nociceptive pain (external injury), neuropathic pain and psychogenic pain⁴². Psychogenic pain is not attributed to organic factors but non-organic or psychological ones (e.g. pain triggered by sound alone)⁴³. A recent study shows that psychological pain can be attributed to the deficiency of phasic dopamine, a compound that controls pain caused by psychological stress and anxiety secreted from hippocampus⁴⁴.

The visual and auditory perceptual experience is relatively easily shared and repeated. Pain is contrarily very subjective as a perceptual experience. You can explain your pain one way or the other. Others, however, cannot do anything but guess the pain that you must have, with the help of their own experience. From this perspective, pain will always remain as a subjective and unique experience. Pain is universal but not the same for everybody, and may change depending on the country, society or period that one belongs to⁴⁵.

Therefore, pain triggered by difficult experiences or stress is thought to be accompanied by emotion. The most advance medical research, however, revealed that both emotional and physical pain is perceived in the same area⁴⁶, which may lead us to a new and different perspective.

Figure 22 shows the mechanism of pain caused by external injuries. It is supposed that long lasting phantom pain in missing limbs (phantom limb pain)⁴⁷ is received in the somatosensory cortex.

⁴²Saeki, S. "Itami wo Motarasu Sikkan no Bunrui to Tokucho" [Classification and Characters of Diseases with pain]. Nemuri to Iryo. September. Tokyo: Sentan Iryo Sha. 2010. 1. ⁴³Yokota, T. *No no Itami: Itami no Shinkei Seirigaku* [Brain and Pain: Neurophysiology of Pain]. Tokyo: Kyoritsu Shuppan. 1993.

^{6-7.}

⁴⁴Yabuki, S. *Itami no Mechanism to Hyoka* [Mechanism of Pain and Its Assessment]. *Seike Saigaigeka*, November 2011. 1463-1464. ⁴⁵Maruta, T. *Itami no Shinrigaku* [Psychology of Pain]. Tokyo: Chuko Shisho. 1989. 9-10.

⁴⁶Minami, M. *Itami no Mechanism wo Kaimei* [Find out Mechanism of Pain], *Ketoru* 6. Tokyo: Ohta Shuppan. 2013. 135.

⁴⁷Hanba, M. Itami no Science [Science of Pain]. Tokyo: Shincho Sha. 2004. 30, 34-45.



Fig. 22 Mechanism of pain (Fukunaga, A. *Yokuwakaru No no Shikumi* [Easy Way to Brain Study]. Tokyo: Natsume Sha. 2006. 119.

Today, our eyes see a deluge of painful images. Unbearable pain is concentrated in specific areas of the world⁴⁸, while the rest of the world seems to be too indifferent to feel pain of people shown on TV, news, and films. My inside pain is attributed to the fact that I cannot not accept my disability as a part of my identity. As shown in our tradition "Mura-hachibu", ostracized and exiled victims from local villages, disabled and foreign residents in Japan suffer from traumatic experiences due to the alienation that they face in society. In my childhood, hearing disabled adults frequently told me that they could not openly use sign language on public transportation, which shocked me. Consequently, I came to believe that it's my mistake to be born with disability, and I pretended not to be disabled because I could read lips. Before I entered Tokyo University of the Arts, I studied at another university, out of regard for my relatives who worried about my alienation from society. I think this a common experience shared by many people.

⁴⁸Sontag, S. Onaji Toki no Nakade [At the Same Time] (tr., Kobata, K.). Tokyo: NTT Shuppan. 2009. 321-326.

Hiroe Yoda (1951-) provided detailed analysis on this matter. Japanese society is characterised with a dual nature: equality is officially guaranteed for all, but society is substantively formed without the disabled. For the same reason, parents of a disabled child are either discriminated against or pitied. A family with a disabled child is first discouraged and burdened with their child's future including schooling and job prospects which consequently inhibits the self-reliance of the child. They are unconsciously forced to accept the tacit social consensus: having a disability is less worthy. The disabled child increasingly feels sympathy for his/her mother struggling with her hardship, which leads the disabled child to self-denial, thinking that he/she is not worthy to live. Thus, the psychological inner conflict is internalised along with the negative stereotypes toward the disabled, which may result in animosity between parents and child. Along with the closed system called "ie-shakai", or family-centred society, the reason for this is due to the fact that Japan, as a policy of the state, has not offered support and protection for the family of the disabled, unlike many advanced Western countries. In our society, the disabled could have a place to live, but as so long as they were not too assertive to threaten the position of the non-disabled⁴⁹.



Fig. 23 Work at the age of 18. The central figure is my mother. My father is on her right side. The figure covering the ears on the right of the canvas is me with floating black holes on the both side.

⁴⁹Yoda, H. Shougaisha Sabetu no Shakaigaku [Sociology of Discrimination against the Disabled]. Tokyo: Iwanami Shoten, 1999. 1-228.

When I was in high school, I once drew on the theme "family" in the art department as an elective (Fig. 23). I was confused by the comment of my art teacher saying that the work shows my ambivalent love and hate. In retrospect, I probably suffered a conflict between the negative beliefs prevalent in our society concerning the disabled and the typical adolescent desire for freedom.

(2) Structure of alienation

According to above cited Yoda, Japan since Manyo-period (late 7th century to late 8th century) has a code of conduct called "seken"⁵⁰. That is, Japanese people are expected to be careful about their language and behaviour and avoid being an outcast⁵¹. People who deviated from the social norm "seken" are punished and labelled with the term "haji", or shame. The relationship with others is elevated to the level of norm or "sekei-tei" (appearance toward seken) that brings stability to society, but this is the very reason why people positioned in obviously inferior categories including, the disabled and those from discriminated communities, have always been excluded from society. Due to such historical background and the superiority of collectiveness requiring self-sacrifice, our social welfare remains poor. In order to escape from this system, it is required for the disabled to live outside of the "seken" and to willingly accept this repressive status, instead of complying with publicly approved negative view on the disabled. In other words, the disabled can have their humanity back only when they spontaneously choose to put themselves in a subordinate position. Atsuhiro Shibatani (1920-2011) defined this process as a highly independent self-determination ⁵². A highly independent self-determination contributes to building ego-strength that requires us to question everything. This approach, however, may result in a wide variety of personal relationships and, consequently, is expected to create new values⁵³

During my stay in the United States, I frequently saw the disabled refuse to be seen as an object of charitable pity, which might be due to their independent spirit. When

⁵⁰Yoda: op. cit. 93. <Analysis by Kinya Abe>

⁵¹Yoda: op. cit. 93. <According to Tadashi Inoue (1939-), "seken" refers to people consisting the quotidian life and consequently the norm>.

⁵²Shibatani, A. *Hikaku Sabetsu ron* [Comparative Study of Discrimination]. Tokyo: Akashi Shoten. 1998. 43-44. ,<These Pages explain sign language.>

⁵³Yoda: op. cit. 91-125.

the hearing disabled read lips, their anxiety and tension are boosted because lip reading consists of picking up fragmented information from the conversation and deducing the meaning from it. The hearing disabled are sometimes considered to have a communication disorder in that their stress and burden are not visible⁵⁴. Therefore, they are unjustly blamed for having personality problems or not trying hard enough. This misunderstanding generated within society can lead to negative labelling such as "people with xx-disability tend to have a certain type of personality". Sometimes able people exclude others and build a wall, but they do this not because they want to discriminate against others but because they do not want to hurt someone or want to instinctively avoid what they can't understand or are afraid of.

Discrimination comes from an inferiority complex. That is, in order to maintain the mental equilibrium, people would like to think themselves a little bit superior to others. However, I want to question the essence of this problem. The modern ideal "all humans are equal" leads to a more pragmatic attitude "all humans should be equal", which might result in the discrimination against different people. On the other hand, there is an opposite sensibility: "everybody should be respected as an individual"⁵⁵. It is this latter perspective that impressed me the most in my overseas experience. I continue to work on the theme "pain" because we are living in today's Japanese society where the diversity from others is not appreciated as a positive identity but as a negative one, that is, our culture "demands" a wall separating people from each other. In the real world, many people find it difficult to overcome this wall, and want to belong to the majority as everybody else does (the world beyond the wall).

In this regard, political scientist Yasushi Yamaguchi (1934-2013) proposed a higher-level modality where people aim at a new associative relation based on "symbiosis" with otherness. Usually, symbiosis refers to different organisms living together and benefiting each other. "Symbiosis" of Yamaguchi, however, does not refer to mutual recognition as a method of crisis management to avoid destruction but refers to mutual respect for autonomy and self-governance, or "live and let live"⁵⁶. As a means of

⁵⁴Nagase, O., Higashi, T., and Kawashima, A. (ed.). Zoho Kaitei: Shougaisha no Kenri Jovaku to Nihon; Gaivo to Tenbou [Enlarged and Devised Edition: Rights of the Disabled and Japan: Summary and Foresight]. Tokyo: Seikatsu Shoin. 2012. 128.

⁵⁵Fukuoka, Y. Zainichi Kankokujin, Chosenjin Wakai Sedai noldentity [North and South Korean residents Identity of younger generation]. Tokyo: Chuko Shinsho. 1993. 226-227.

^{6&}quot;Kyousei to iukoto" [About Symbiosis]. Ahahi Shinbun. October 10th 1994.

overcoming disability, Yoda claimed that it is required to keep a distance from the welfare rights system and to acknowledge each other's differences as the starting point so that the disabled accept themselves as they are, instead of following the style of the non-disabled⁵⁷. I feel great affinity for her idea, so I always keep it in mind during my art work.

(3) Pain viewed from a philosophical point of view

In order to survive and live, all life species including human beings have "physiological instinct for diversity, and appreciate both people's difference and uniformity". Now, let's examine the physiological instinct through the philosophical point of view. "Everything is born of One" is a famous line from the Upanishad, the world's oldest philosophy that we have and also shared by Prabhat Ranjan Sarkar (1921-1990). The theory on human society of Sarkar can be summarised as follows:

Everything on the glove exists in accordance with changes of the natural environment and laws of progress. Humans multiplied into different colours of eye and skin, different features of the face and body from a need to survive, but forgot that all humans have the same roots. Unfortunately, people who were dazzled by superficial diversity began to claim the inferior-superior relationship between human races, which resulted in hate and discrimination between races, bringing enormous pain. However, it should be remembered that all humans are born of One and have the same biological instinct and the same basic mentality. Biological instinct and basic mentality are equal for every nation, period, and person. They are all under "natural law of attraction and repulsion" in which the equilibrium is assured through different forces. Additionally, in order to overcome racial superiority or racial particularism, Sarkar claimed that human society needs a sort of world government that would strive for universalism. He also claimed that conflict and discrimination in the world can be solved when we accept the diversity regarding food, clothing, language, religion and race, and we come to accept

⁵⁷Yoda, op. cit. 100-107

and share the clash and fusion brought by the progress of intellect, believing in the basic unity of humankind⁵⁸.

However, I, who live in today's world, find the Sarkar's vision of "global government" impossible to realise. In addition to this, I feel some religious nuances here. Nevertheless, I sympathise for his positive attitude of exploring problems of pain and his active commitment to integration.

⁵⁸Matsuo, M. Sarkar no Shisou 1: Shinpoteki Katsuyo Riron: Shihonshugi to Nationalism wo Koete [Thought of Sarkar 1: Progressive Application Theory: Beyond Capitalism and Nationalism]. Tokyo: National Spirit. 2005. 238-280.

2-2 Identity

(1) Experiences living in the United States

Where does identity come from? To confront myself and find out the answer from a clearer perspective, I left Japan in March 2013 and stayed in the United States for a year.

The United States of America was founded as a Constitutional Republic by immigrants who came from Europe and drew up the Declaration of Independence in defiance of Britain. It is said that the society of the United States was infused with individualism which focused on individual rights, profit and security and at the same time divided into groups according to race, origin, region and social stratum⁵⁹. New York City where I lived is described as a miniature of the world as the phase "New York is not America" because there are different ethnic groups from around the world. However, even though different races seemingly coexisted, they rarely mixed. Americans basically have the view that all individuals are not the same and cannot easily understand each other⁶⁰. They put great value on the practical approach to living as comfortably as possible, exactly because they know they are living in a collateral society, which suggests the American way of "unity and diversity across races and boundaries".

In the United States, I finally realised that I was under the influence toward the discrimination of myself. Where does this influence come from? In Japan, despite the rapid Westernisation during Meiji period (1868-1912), essential rights and security systems including human rights were definitively bypassed, by Japan's ruling classes, compared with Western societies. For this reason, discrimination was not apparently recognised as a problem. Sweden proposed a 'normalised society'⁶¹ where the disabled and the socially vulnerable have equal opportunities in participating society without discrimination. The normalisation in the United States seems to be focused rather on individualism, but their spirit of breaking with the old and birthing the new can be

⁵⁹Saeki, Keishi. 20 Seiki toha Nandattanoka [What was the 20th Century?]. Tokyo: PHP. 2004.

⁶⁰Horikawa, T. New York de Kurasu to Iukoto [Living in New York]. Tokyo: PHP. 2001. 96-97.

⁶¹Kitaoka, T. Sweden ha Naze Tsuyoika [Why Sweden is Strong]. Tokyo: PHP. 2010. 154-155.

thought as one of the reasons behind the enactment of the ADA (Americans with Disabilities Act). This chapter focuses on how the disabled in the United States overcame individual pain and found a way of coexistence. The idea underlying American deaf culture is "Deaf Pride"⁶², that is, an idea of "accepting deafness as an identity" without carrying inside any of the negative values about the disabled. I learned a great deal from exchanges with 'Deaf Pride' members and concluded: hearing disability is not something to be ashamed of, and all I have to do is open myself up. Paradoxically speaking, innate diversity can offer another point of view to the side of the minority. In my opinion, we have to see things from a higher point of view.

(2) Americans with Disabilities Act

Museums in the United States implement more advanced educational methods compared to Japanese museums. They actively work on the right of 'access of information' (right-to-know), which is not unrelated to laws of strengthening basic human rights for the disabled. Twenty-four years ago in 1990, the ADA (Americans with Disabilities Act) was enacted, prohibiting discrimination of employment as well as ensuring access rights to public facilities and transport systems and guaranteeing services for language- and hearing disabled people (Fig. 24), which made a big impact on the world. At that point, awareness of people with disabilities of the world began to change. The ADA is basically same as "Declaration of Independence" giving disabled Americans full citizenship. In other words, they were no longer the object of charitable pity but a citizen with individual civil rights. The purpose of the act is to eliminate discrimination against the disabled, but is not always respected, including cases of the severely disabled people who still live without proper care.

⁶²The definition of "deaf" is different between Japan and the United States as well between the individuals. For example, in the United States, the light hearing disabled are spontaneously defined themselves as "deaf" to establish own identity.


Fig. 24 Photo by author at a gallery district in New York

From ancient times to present day, a great many disabled people have been abandoned shortly after birth or have not received enough medical treatment. During World War II, the disabled were killed in the gas chambers by the Nazis. Their right to live, the right to survive have been achieved after a long historical struggle. The term "American Civil War" is erroneously translated in Japanese as "North-South War", but it should be interpreted as a war over the citizenship. The African-American Civil Rights Movement set a precedent, followed by Feminism and movements of the disabled including the ADA. "The idea of equality" in Japan is different from that of America. American people appreciate free competition and seek to stand at the same starting line under the same conditions. On the contrary, Japanese people have a tendency to appreciate uniformity and homogeneity⁶³.

The United States still have racial and immigration issues to resolve. However, I was particularly impressed with their energy to identify and openly discuss problems and to launch an extensive campaign in which I saw massive potential for the future. Michael J. Sandel (1953-) addressed this issue in his book⁶⁴. When I stayed in the United States, it was often pointed out to me that the disabled in Japan are dependent on others. According

⁶³Yashiro, E. and Tomiyasu (ed.) *ADA-Hou (Shougai wo Motsu America Jin Hou) no Shougeki* [Impact of the ADA (Americans with Disabilities Act)]. Tokyo: Gakuen Sha. 1991. 11-106.

⁶⁴Sandel, M. Korekara Seigi no Hanasi wo Siyou: Ima wo Ikinobiru Tame no Tetsugaku [Justice: What's the Right thing to Do?]. Tokyo: Hayakawa Shobo. 2011. 217-237.

to them, the Japanese disabled still remain dependent on goodwill of others due to "ie-system". This is a misunderstanding and it put me in trouble.

I personally had this sort of experience, for example, in my university days, when I relied on my classmates and unknown note-takers of good will (in-class note taking for hearing disabled students). Note-taking may affect their academic performance, which is a reason of the complex of the hearing disabled regarding academic performance and knowledge. This imposed burdens and pain on both sides; the disabled students who rely on good will of others on one side, and their colleagues who are forced to help the beneficiary on the other side⁶⁵. In the United States, contrarily, the interpreter is not considered to be a volunteer but a professional to be paid⁶⁶.

In the United States, it is common nowadays those universities arrange professional interpreters⁶⁷, just as when I stayed for several months with my host family serving as interpreters. These experiences taught me that people respect human rights of the disabled and have passion to make their society better.

(3) Pain of American history

The era of machine production in America began in the 1890's with the end of the settlement of the West. As the mass production developed, the nation became rich, its lifestyle and thinking model were standardised. Unprecedented mass production including the education aiming at the Americanisation of new immigrants produced abstract and standardised individuals separated from the cultural background of their mother country⁶⁸. This is the so-called Americanisation that contributed to recruiting English speaking workers or royal citizens to American laws and values⁶⁹. The rapid rise of technical knowhow of America is, on one hand, thought to result in functionalisms and rationalisms accompanied by loss of identity, but, on the other hand, gave immigrants means of living and consequently contributed to society.

I travelled around the United States to visit many museums in my undergraduate

⁶⁵Since 2012, The Tokyo University of Arts implemented the university's disability policy including note-taking support for disabled student of fine arts.

⁶⁶Special skill training is required for all interpreters.

⁶⁷It may vary from state to state, but it is common at least in several states that I visited.

⁶⁸ Saeki: op. cit. 221.

⁶⁹Saeki: Shin "Teikou" America wo Bunkaisuru [Analysis on New Empire America]. Tokyo: Chikuma Shobo. 179-185.

years. All art work that I saw in those days seemed to me an intellectual exercise focusing on the darkness of the culture called America and revealing a dark side of this ideal country of freedom. Along with their sophisticated formalism, what moved me the most was the expression of pop art in which pain caused by repeated wars and social factors are depicted, as a re-opening their own old wounds.



Fig. 25 Andy Warhol. Gold Marilyn. Acrylic, metallic paint, silkscreen and oil on canvas. 211.4×144.7cm. 1962. Museum of Modern Art, New York.

For example, the iconic image painted on gold leaf paper of Andy Warhol's work (1928-1987) shown in Figure 25 represents valueless information amplified by mass media, while the repeated motif of Figure 26 is a symbol of mass machine production. The latter work can be interpreted as the pain of paralysed mass⁷⁰. It seems that painting darkness to express light is a common method shared with Japanese painters. The path that I followed in Japan seems to have something common with American Abstract Expressionism and pop art. By painting, they drew out pus of age just as homeopathic treatment does.

⁷⁰Senju, H. *Bi ha Jiku wo Koeru: Senju Hiroshi no Bijutsu no Jugyou II* [Beauty Transcending Time: Art Lesson of Senju Hiroshi II], Tokyo: Kobun Sha. 2004. 158-169.



Fig. 26 Andy Warhol. 210 Coca-Cola Bottles. Acrylic, silkscreen and lead on canvas. 209.6×266.7cm. 1962. The Andy Warhol Foundation.

Many Abstract Expressionism painters including Barnett Newman (1905-1970) and Mark Rothko (1903-1970) painted motifs brimming with life using vivid primitive art, literature and myth as a theme. We can infer from this how they claimed back the nobility of life in our logical scientific age. Inspired by native-Americans' ceremonial sand painting, Jackson Pollock (1912-1956) liberated painting from the restrains of easel⁷¹. Rothko, inspired by native-Americans' graves, created Rothko Chapel, a meditative space similar to the chapel⁷². Whereas traditional paintings were featured with strong contrasts between light-darkness and brushstrokes, they opened new frontiers by developing colour-oriented and free flowing paintings. The characteristics of American Abstract Expressionism include new spatial expression, time expression and enormousness. These artists illustrated the importance of atypical perception and myth, probably because they want to evoke a sense of crisis regarding the violence of totalitarianism that invades our world as well as rationalised civilisation.

⁷¹Di Antonio, E. And Tuckman, M. Gendai Bijutsu ha Kataru [Painters Painting]. Tokyo: Seido Sha. 1996. 77-79.

⁷²Ozaki, S. Kaigaron wo Koete [Beyond painting theory]. Tokyo: Toshun Do, 1999. 17, 73-88, 241-242.

(4) My art works in the United States

When I lived in America surrounded by American people, the problems that I confronted in Japan seemed to be far away. Artists, by their nature, explore a way to liberate concepts and discover something hidden behind⁷³. However, masterpieces are not born of theory alone but also of individual sentiment and expression.



Fig. 27 Nakamura, Y. Confusion of conversation with the boundary. Paper of writing messages, Japanese paper, dye, acrylic, paint, silver leaf, spray paint. 300.0x400.0x300.0cm. 2013.



Fig. 28 Nakamura, Y. Boundary=Tree of Life. Coloured paper used for writing messages, Japanese paper, dye, acrylic, paint, silver leaf, spray paint. 300.0x400.0x300.0cm. 2013.

In the United States, I developed an interest in art with logic. I engaged in some experimental work to explore myself in my own way, inspired and helped by my colleagues of contemporary art who opened my eyes to the difference between American and Japanese artists. In doing so, I paid special attention to my personal hearing experiences, such as, for example, the art work elaborated with sheets of paper used for writing messages or installed the work using the whole room as a display space, which expanded the potential of expression.

However, there are few materials recorded about my artwork in this period

⁷³Arieti, S. Souzou ryoku: Gensho Karano Tougou [La creatività- la sintesi magica]. Tokyo: Shinyo Sha. 1995. 70-73.

because they were elaborated and exhibited as a provisional concept as shown in Figures 27, 28 and 29. Figure 27 is my first installation work. The folding screens represent the borders and language barriers standing up against humans, and English messages written on the pieces of paper are pasted all over the drawing. I can fluently communicate with lip reading, but it's limited to Japan. In the United States, I was forced to communicate with the help of American Sign Language and wrote messages in English because I could not read the movements of a mouth speaking English. Figure 28 has the same theme: a white tree of life is painted in the middle, directly on the wall of the room. I installed this work at the door because the door symbolises, for me, a medium to transcend national borders. My experience in the United States gave me a clear vision about discrimination, which gave me another perspective, not always positive. Nevertheless, in the United States, a feeling of hopelessness that I felt in Japan in front of this boundary wall seemed to disappear.



Fig. 29 Nakamura, Y. Gushing fountain of words' memory. Acrylic, pen. 35.2x28.0cm. 2014.

During my stay in the United States, I was a bit disturbed when I sometimes thought about far away Japan and Japanese Painting. After all, I could not abandon my deep emotional attachment to Japanese Painting. My sensibility was fostered in the climate of Japan, and my attachment for materials too. When I returned to Japan, the beauty of mineral pigments moved me again. To be honest, I could hardly appreciate Japanese Painting as long as I was in Japan. Nevertheless, I began to use modern materials in the United States. For example, I found acrylics suitable for expressing "the world as thin as paper", a feeling that I used to feel in the soundless world. The work shown in Figure 29 was painted with acrylics and ink in order to express the fragility in which written messages sink to the bottom of memories in the world perceived as paper-thin. I tried to express how I hear sound in the work shown in Figure 30, but, as a result, the idea "everything returns to the soil" is considered as the theme. The expression made with natural materials can be seen all over the world. Good examples are sand paintings by André-Aimé-René Masson (1896-1987)⁷⁴ elaborated with sprinkled sand using natural gravity. In the past, I focused my attention solely inward in my art work. However, the paintings in this period gave me a supportive push to look outward. Inward-outward: these opposite directions are eventually two sides of the same coin.



Fig. 30 Nakamura, Y. Residual image of sound. Japanese paper, dye and paint. 130.5x90.8cm. 2013.

⁷⁴Ezawa, K. Georges Bataille no "Futeikei" no Bigaku [Amorphous Aesthetics of Georges Bataille]. Tokyo: Suisei Sha. 2005. 160.

3-1 An attempt to escape pain

(1) Primitive Logic

Primitive thought is a form of logic before Aristotle (B.C. 384-322), also called paleologic. Generally speaking, subject and predicate are linked by logic, whereas, in patients with schizophrenia, the relationship between the subject and predicate is illogical: "the Virgin Mary is a virgin; therefore, I am the Virgin Mary". This same phenomenon is frequently observed among children between the ages of one-and-a-half and three-and-a-half years. For them, any man in a picture is their father no matter who he is, while a woman is mother. They also link two objects of different nature, for example lion and human, finding a similarity between them, to cite an example, "the power". This is typical logic of the ancient world of myth and the culture of primitive societies, and it also widespread in medieval Europe⁷⁵. Claude Levi-Strauss (1908-2009) pointed out the infinite nature of the brain, due to its dualistic nature, is able to endlessly integrate two opposite concepts while reproducing new ones. This mythological logic is not described in any chronological order, but is instead an attempt to comprehend things as a whole, and prevailed in the sense-dominated world before the 17th and 18th centuries when scientific logic was established⁷⁶. Although his argument looks guite reasonable, it is drawn from a simple dichotomy of good versus evil.

In my childhood, I blindly accepted this apparently irrational and contradicted mythological thinking. For example, I once painted a hand shooting blood, which probably was born from my bizarre illusion attributed to the vague boundary between dream and reality. It was though my unconscious world was exposed closely to the mythical world.

⁷⁵Arieti: op. cit., 54-59, 177-184.

⁷⁶Levi-Strausse, C. Shinwo to Imi [Myth and Meaning]. Tokyo: Misuzu Shoten. 1996. 7, 62-63.

(2) What triggered my interest in Myth

I often used mythical images for my artwork because I was fascinated by bizarre languages and descriptions in myths. This is probably because I, having a Christian mother, grew up with the Bible⁷⁷. As my adolescence progressed, this contradictory world view bothered me even though there were beautiful Biblical stories. One examples of the story is the prophecy of the Armageddon where God with infinite love would destroy most of people without the faith (the Apocalypse, 16). It is said that the sin committed by Eve eating forbidden fruit made humans imperfect and mortal, and consequently we suffer from diseases and disabilities, which raises many questions. At the same time, I was fascinated by the message of salvation, or the message that God liberates us from agony and pain. This idea about Paradise had a big impression on me, Paradise in which, one day, everyone would be free from illness and disability and humans would live as one. What I am interested the most is so called Apocalypse. The dramatic contrast between the dreadful view on the world's destruction and the dazzling new universe were engraved in my heart. The image described in "the Paradise Lost" of Figure 31 is very close to my image, showing a dramatic contrast between water-rich green Paradise and the deserted landscape with volcanic eruptions and stormy winds.



Fig. 31 Thomas Cole. Paradise Lost, Oil on canvas. 100.9cm×138.4cm.1827-28. Boston Museum.

⁷⁷The translation and doctrine of the Bible differ depending on the sect.

I longed for the salvation of God and paradise because I was always looking for possible explanations for my congenital "hearing loss". The fundamental question "who am I?" is shared by all humans including people living with diseases and disabilities. I have always asked myself about my identity because I had difficulties to put into words what I had on my mind.

(3) Universal collective unconsciousness

My desire for salvation is deeply linked with the concept of the collective unconscious of Carl Gustav Jung (1875-1961). The collective unconscious is a concept that everything including ideas, philosophy, art, poetry and literature derive from universal personal memories. Jung claimed that the collective unconscious is innate and universal, and lies beneath the personal unconscious located in the surface layer⁷⁸. In other words, Jung identified it with the image inherited from time immemorial, saying: "In view of these facts we must assume that the unconscious contains not only personal but also impersonal collective components in the form of inherited categories of archetypes. I believe that this hypothesis, at its deeper level, the unconscious possesses collective contents in a relatively active state. This is why I speak of a collective unconscious "⁷⁹. The unconscious world is considered the common basis of myth, religion and culture of which memories are shared by all humans beyond the boundaries, races and nations⁸⁰.



Fig. 32 Universal collective unconscious (Hayashi, M. Jung. Tokyo: Shimizu Shoin. 1980. 31.

⁷⁸Jung, CG. Genkei Ron [Archetypen]. Tokyo: Kinokuniya Shoten. 1999. 28.

⁷⁹Jung, CG. *Jiga to Muishiki* [The Ego and Unconscious]. Tokyo: Daisan Bunmei Sha. 1995. 36.

⁸⁰Jung, CG. Jiga to muishiki no Kankei [The Relationship between the Ego and the Unconscious]. Tokyo: Junbun Shoin. 1992. 113.

As shown in Figure 32, the deeper the level of the conscious, the closer to a primitive path of life. Although Jung, as cited above, claimed that inherited memories are embedded in humans, the development of life is still unknown and questions are left open. Recent research claims that individual experience of pain could be inherited from generation to generation⁸¹, which could be a limited phenomenon. Can memories be passed down not only through the environment but also through genetics? Humans are continuously involved in "the conflict between strong impulses from unconscious instincts and the ego that restrains them". It is said that humans acquire mental disease when the above balance is lost, and I have personally experienced darkness of my unconscious. Perhaps we are dragged into chaos when our realistic conscious is weakened as a result of self-denial and increasing unconscious.

Jung confessed that his family was a great help to him when he suffered from hallucinations and when he had difficult relationships with other people. What kept me going was the Christian community. Nevertheless, I unconsciously denied my disability as a complex because having a disability is thought to be negative according to societal norms.

(4) Pain and salvation in mythology

Nature has always been feared and respected by mankind. Ceremonies and festivals were created in order to explain natural phenomena, while fictional belief and spiritual sentiment were initiated from the fear of nature. However, as religion continued to be increasingly systemised, it brought about another fear and dissension among people⁸². The Christian community, for example, was radically divided into the contrast between light and shade according to the good-evil distinction. The Book of Job is the most extreme example in which Yahweh is described as a terrible personification of the unconscious. Jesus Christ was a mediator who united God of the collective unconscious with humans of the conscious. On the other hand, Christian apocryphal literature Gnosis

⁸¹Brian, G Dias. and Kerry, J Ressler. "Parental Olfactory Experience Influences Behavior and Neural Structure in Subsequent Generations". *Nature Neuroscience*. 2013 Published Online.

http://www.nature.com/neuro/journal/vaop/ncurrent/full/nn.3594.html

⁸²Matsuo. op. cit. 268-269.

(=recognition) took an opposite position about the idea of salvation from the Church that insisted that salvation from original sin can be attained only through redemption. According to Gnosis, all humans can become a perfect spiritual being by recognising that humans are born divine by nature. Jung assumed that it is Jesus Christ that embodies this seed of spirituality and the "self" sleeping in the unconscious. In other words, salvation can be achieved by integrating the conscious and the unconscious, as well as both sides of good and evil⁸³.



Fig. 33 Ego-Self (Yamanaka, H. *Rinsho Jung Shinrigaku Nyumon* [Introduction of Clinical Jungian Psychology]. Tokyo: PHP. 1996. 51

In Figure 33, the self is shown as a core located in the centre of the unconscious. As an island in the spotlight, the conscious floats atop of the unconscious covering almost all structure. The ego and the self are connected by an axle, and, according to Jung, the understanding of the self leads us to the ultimate goal of being human. Through self-realisation, we can accept diversity, while at the same time we can keep our serenity by respecting our innate nature. The concept, "The self - ego is God inside ourselves"⁸⁴ (Isaiah, 30:21) Bible. According to Jung, the attempt to conquer the opposite side just as

⁸³ Hayashi. op. cit. 152-153.

⁸⁴Yamanaka, H. Rinsho Jung Shinrigaku Nyumon [Introduction of Clinical Jungian Psychology]. Tokyo: PHP. 1996. 50-51.

light drives out darkness is an illusion and would bring about unbearable tension and pain for both sides. It is, however, still a hypothesis with many controversies. The idea of Gnosis seems so extreme that I cannot avoid a sense of apprehension. Nevertheless, the question "what is a human?" or "what is pain?" has been always questioned by those who explore the unconscious.

3-2 Pursuit of pain and unconsciousness

(1) Sandplay therapy

Jung aimed at achieving perfection of the self by maintaining equilibrium between the conscious and the unconscious. The more dominant our critical rationality is, the more sterile our life. Contrarily, the more conscious we are of the unconsciousness and myth, the purer our life. The progressivism- and rationalism-oriented intellect tends to welcome something new, but Jung claimed that we should rebuild ties with our ancestors by re-establishing the world of irrationality and by acknowledging the continuity of the past that lives inside us⁸⁵. Clinical therapy on the based on Jung's idea made an impact on many people including, of course, his successors who developed art therapy and Sandplay therapy.

Sandplay therapy was developed from a psychological test used in Britain by Swiss Dora Kalff (1904-1990). A pioneer in Japan was Hayao Kawai (1928-2007). When he was certified as first Japanese Jungian analyst in Zurich in 1965, he came upon Sandplay therapy and began to practise in Kyoto⁸⁶. Sandplay therapy is psychological treatment using a toy garden made in a box $52 \times 72 \times 7$ cm, and if the sand is removed, the bottom painted blue creates the impression of water. Clients choose miniature objects on the shelves and put them in the sand box as they like. This process externalises the internal world of clients, which makes psychological therapy possible⁸⁷.

At the age three, I started Sandplay therapy along with speech training. At that time, I knew little about what it meant, but the pictures in those days allow some analysis about my starting point. As the sense of self emerged, I loved playing with the miniature garden. There are only few pictures left from the ages four to six years old as shown in Figures 34-36, but judging from these pictures, boundaries with others was already visible at that time. I vividly remember that my favourite figures were two rhinos in two different colours. In the picture at the age four (Fig. 34), two rhinos are surrounded with green fences, whereas other figures are scattered as very commonly seen in children's art.

⁸⁵Hayashi. op. cit. 172-174.

⁸⁶Yamanaka. op. cit. 140-143.

⁸⁷Kawai, H. Hakoniwa Rryoho Nnyumon [Introduction of Sandplay Therapy]. Tokyo: Seishin Shobo. 1969. 3-51.

Two rhinos may reflect the image of my parents. I often put the figures of animals in a pair, which shows that I tried to emulate human society in Sandplay. In the picture at the age of five (Fig. 35), the rhinos were hidden from view with trees allocated along the fences, while in the picture at 6 (Fig. 36) there is only one rhino left there (top left of the picture), which presumably reflects the development of ego.



Fig. 34 Sandplay therapy at the age 4 At the speech clinic of therapist Kimie IIzuka



Fig. 35 Sandplay therapy at the age 5



Fig. 36 Sandplay therapy at the age 5

A rhino positioned on the bridge over water may suggest my unstable psychological state, showing that my boundary between others grew and I withdrew more and more inside myself. When I began to understand things, I was sharply conscious of "the boundary separating me and others", and my state of the conscious in those days can be traced through this picture archive. The memory consists of the aggregate of something made from the conscious and the unconscious and the emotion caused by certain types of pain⁸⁸. Therefore, the agony and pain of the individual reflect the age.

(2) Pursuit of collective unconscious

The peak experience is often compared to a "little death", but can be also interpreted as a "rebirth". The experience of a highly creative moment is accompanied by bliss. Classic music and dance are thought to generate supernatural senses such as illumination and enlightenment. Movement with rhythm leads us to allow the process of self-realisation which plays a "therapeutic role"⁸⁹. Peak experiences leads to the world of the unconscious, which is seen in the occult of art and festivals. These high-dimensional "mystical experiences" are also triggered by hallucinatory drugs and near-death experience. Middle- and South American shamans access different dimensions or another level of the reality by boosting the altered consciousness with the help of hallucinatory drugs made from plants. It is reported that Ayawaska, a hallucinogen, can prompt visionary experiences similar to the scene of prehistoric cave paintings (Fig. 37).⁹⁰

The use of LSD played a central role in psychedelic art that dominated the 1960's, and is known to provoke a cross-model synaesthesia that distort time- and spatial senses. The unconscious state induced by LSD boosts togetherness with the world, which may cause visual changes. Visual confusion tricks the brain in seeing the paintings of a cat of schizophrenic painter Louis Wain (1860-1939) painted when he was under the influence (Figures 38 and 39)⁹¹.

⁸⁸Maruta. op. cit. 39.

⁸⁹⁸⁹Maslow, A. *Ningensei no Saikokachi* [The Further Reaches of Human Nature]. Tokyo: Seishin Shobo. 1973. 209, 413.

⁹⁰Hancock, G. and Deravy, E. Jinrui no Hassho, Kamigami no Eichi, Bunnmei no Sozo: Subete no Kigen ha "Ijigen" ni Atta [The journey beyond the edge of reality]. Tokyo: Tokuma Shoten. 2006. 306, 358-360.

⁹¹Snyder, SH. No to Yakubutsu [Brain and drug]. Tokyo: Tokyo Kagaku Dojin. 1990. 179-205.



Fig. 37 Ayawaska inspired painting (detail) (Hancock G, Deravy E. The Journey beyond the Edge of Reality. Tokyo: Tokuma Shoten, 2006. 306, 1)



Fig. 38 Louis Wain's cat paintings started to change after he had schizophrenia at the age 57. (Snyder SH. *Nou to Yakubutsu* [Brain and drug]. Tokyo. Tokyo Kagaku Doujin, 1990. 60.

Fig. 39 Louis Wain Cat (Sakazaki O: Gensou Geijutsu no Sekai [World of Illusionary Art]. Tokyo: Koudan Sha, 1969. 165.

It is also said that astronauts feel togetherness with God⁹². Does the same "transformation of the conscious" due to imagination take place when astronauts find themselves in absolute darkness of the vast universe that cannot be replicated on Earth? Many people who have near-death experiences claim that they see a blinding light and have a euphoric feeling at being one with the universe. It is often claimed that this near-death experience is not surreal but determinedly real unlike that brought on by LSD. Therefore, near-death experience can be thought to make a bigger spiritual impact.

Problems associated with sensory deprivation were studied in the US Apollo program from the second half of the 1950's to the 1960's. The loss of sensory stimuli is for all of us a sufficient trigger of sensory abnormalities and hallucinations. A certain amount of sensory stimuli is indispensable for the brain, because the brain easily slips out of control when stimuli are lost. Biologist, neuroscientist John Cunningham Lilly (1915-2001) invented an isolation device. Lilly's device is a tank which isolate sounds and lights, and filled with liquid at body temperature that buoyant naked examinees float in because its water contains a lot of salt. When floating in this tank for a long time, the examinees slip into a trance and reach something similar to nirvana (satori)⁹³. I experienced Lilly's isolation tank and floated in jet black space twice without being able to see, but I was disappointed.

According to Hayao Kawai, hypnosis can induce an altered state of consciousness but has been often confused with magic and witchcraft. However, Theodore Xenophon Barber (1927-2005) claimed that hypnosis can be explained in the terms of general psychology, and defined hypnosis as an action that can affect, with the power of suggestion, perception-thinking-action-physiology, and can shift the boundary of the conscious and the unconscious⁹⁴. Hypnosis can also induce regression to past memories where the examinee perhaps sees flashbacks of universal collective consciousness. Anyway, this is an unknown territory to be explored along with the brain. In my opinion, exploring the world of the unconscious may heal many types of internal maladies and reduce fear of death.

⁹²Tachibana, T. Uchu Karano Kikan [Return from space]. Tokyo: Chuou Koron Sha. 1985.

⁹³Tachibana, T. Rinshi taiken II [Near-death experience]. Tokyo: Bungei Shunju. 1994. 254-266.

⁹⁴Kawai, H. Muishiki no Sekai [World of unconscious]. Tokyo: Nihon Hyoron Sha. 1997. 31-34.

I had refused to face the reality that I suffer from hearing loss from around 2007 so much that I began to feel anxiousness growing. I came to think that "the soundless world is not anything but the unconscious", and, in 2010, tried to portray an auditory hallucination in a drawing (Fig. 40). However, no matter how hard I tried, I could not interpret the same beautiful sound of auditory hallucination that I used to hear before when my hearing worked at a certain level. This art work reflects my situation at the time when I heard nothing but loud roaring noises.



Fig. 40 Nakamura, Y. No sound – Drawing of auditory hallucination. Japanese paper, dye and chalk. 56.0×35.5 cm, 2010.

Rudolf Steiner (1861-1925) wrote on colours as follows: "Everything perceived by our spirit is tinged with our personal colours. The spirit of the individual discovers and opens up his own way, by getting involved in something expressed by its own colour. What I want to question here is self-recognition to perceive the self."⁹⁵ Without doubt, my colour sense expressed on the canvas mirrors my state of anxiety. I believe that my hearing loss affected and transformed my brain to induce anxiety, which is reflected in my art work.

⁹⁵Koch, E. and Wagner, G. Shikisai no Fantasy: Rudolf Steiner no Geijutsuron ni motoduku Kaiga no Jissen [Die Individuaitat der Farbe: Übungs Wege für das Malen und Farbenlebe]. Tokyo: Izara Shobo. 1998. 9-11, 165.



Fig. 41 Nakamura, Y. Soundless world. Mineral pigments, dye and cloth. 162.0×162.0cm, 2011.



Fig. 42 Nakamura, Y. Untitled. Mineral pigments, dye and Japanese paper, $1303{\times}1940\text{cm},\,2012.$

The art work in my second year Master's (Figure 41) and of first year of my Doctorate show that everything gradually disappeared and perception was swallowed by ultimate soundlessness. At that time when I painted these works, I could not understand why the screen was painted in mono-tone without any objects. This art is basically linked with the world of the unconscious. Many artists started their professional careers after receiving psychological therapy. Pollock is one of these artists who were being treated by Jungian psychological therapy until just before his death, leaving many sketches and drawings⁹⁶.

⁹⁶Gendai Bijutsu vol. 6 Pollock [Contemporary Art]. Tokyo: Kodan Sha. 1996. 78-79.



Fig. 43 Pollock J. Sketch for psychoanalysis. Collection of Mr and Mrs Hiroshi Saito.



Fig. 44 Pollock J. Moon woman. Oil on canvas. 177.0×107.0cm. 1942. Guggenheim Museum.

(3) Symbol

"Symbol" (this term derived from Ancient Greek: symbolon) is a reminder shared between people as tacit recognition. "Symbolon" means "grouping together" or "linking together". These symbols are sometimes common in many cultures between East and West, and sometimes reflect regional diversity. In the West, for example, spring is personalised by the figures of Grecian gods, whereas spring is represented with flowers and trees in the East ⁹⁷. Symbols have been explored in the context of universe-fertility-death-rebirth, from early psychoanalysis; they have been also studied from a psychological point of view. Similar symbols are found all over the world, and the discussion whether they are derived as a result of the unconscious still continues today. Some symbols remain for several thousand years, while some innovative and new symbols were created⁹⁸.

The opaque and translucent patterns (Fig. 45) that I frequently used in my art work were the "symbols of the boundary wall". These patterns were for me the very picture of Cherubim standing in front of Paradise, or the garden of taboo. This symbol was my last resort to preserve my identity, just as early Christian society replaced their faith with the symbols of fish and bread against persecutions.

⁹⁷Gombrich, EH. Symbolic Images. Tokyo: Heibon Sha. 1991. 6-7.

⁹⁸Miranda, B. *Sign Symbol Daizukan* [Illustrated Book of Sings and Symbols]. Tokyo: Sansei Do. 2010. 6-11.













Fig. 45 Patterns from my artworks (detail)

Chapter 4 Self-Analysis of My Art Work

4-1 From Undergraduate to Master's course

(1) Paintings in blue

Water is closely linked with our bodies. Water in mythology is recognised as being a spiritual substance in our blood that can be traced back to Adam and Eve in Paradise⁹⁹ and is sometimes considered as a symbol of fertility¹⁰⁰. Water, transforming itself into steam or ice, is the source of life that alternates between destruction and recreation. The series of my artwork in blue was created because of the supremacy of these myths as a symbol of healing. Figure 46 is my under graduation work, titled "Daydream". The scene with butterflies flying over the intersection reflects my desire of returning to the womb, a belief shared by everyone's unconscious memory. This transparent scene mirrors the physical and non-physical worlds lying across these crossroads. Scattering light all over the screen is due to my wide peripheral vision.



Fig. 46 Nakamura Y. Daydream. Colour on Japanese paper. 1181.8×227.3cm. 2009.

⁹⁹Jung, CG. *Jung Renkinjutsu to Muishiki no Shinrigaku* [Psychologie und Alchemie, trad. Matsuda M]. Tokyo: Kodan Sha. 2002. 66-69.

¹⁰⁰Bruce. op. cit. 32-33.

The butterfly is frequently used as a symbol of the spirit, life and soul. This work is inspired by "El Castillo Interior¹⁰¹", a book written by Teresa of Ávila (1515-1582), a Catholic convent reformer born in 16th century Spain. Teresa wrote, "[...] since obviously she (=butterfly) can find it neither in spiritual consolation nor in earthy pleasures but takes a higher flight. I saw a butterfly flying higher and higher, without resting. The butterfly, which is never still, for it can find no true repose, yet always fertile, doing good both to it and others".

For me who was inspired by these words, the butterfly was a symbol of the restless spirit of humans who find life hard because of desperation and agony beyond their control. Since then, I have often painted butterflies comparing them with struggling humans, and came to think that butterflies are the incarnation of "sound/language" in the unconscious.

I very often use dye for my art work. Apart from some chemical dyes, I myself extract almost all colours from natural ingredients. Although I use my own indigo fermented by myself, I found poisonous colours of chemical dyes very suitable to express pain caused by civilisation.

I usually make colours depending on my mood, by mixing together dye many times and mineral pigment layers until I find them applicable. I sometimes paste veil-like thin Japanese paper onto thick Japanese paper, and put drops of dye on this surface, which creates layers similar to that in oil painting. I admired the beauty of classical paintings glazing that I saw in Europe, consequently I have made every effort to recreate the same effect in my Japanese painting. As the painting ages, the contrast between the dye and the mineral pigment is increasingly enhanced because dye easily fades away.

(2) Paintings in red

Almost all my artwork in this series is featured with colours which remind me of fire and blood. Fire is a symbol of the chaos of having active and masculine characteristics. Fire refers not only to purification and rebirth¹⁰² but also to eternity, and according to Greek myth, Prometheus gave humans fire. Blood is, contrarily, attributed to

¹⁰¹Terasa of Ávila. Reikon no shiro [El Castillo Interior]. Nagasaki: Nagasaki, Seibo no Kishi Sha. 2000. 200-201.

¹⁰²Bruce. op. cit. 30-31.

water and is considered as a primitive symbol of life¹⁰³, coupling an individual's memory of pain. In my opinion, the above symbols were born from the world of the unconscious. Therefore, I find the series in blue and red better suited in expressing myth because the soundless world is thought to be near the world of the unconscious. The graduation work of my Master's "They, Reaching Heights" (Fig. 47) intends to express the vitality of life paradoxically through death, chaos, destruction and pain, reminding me that we all cannot escape this life. Seeking the most appropriate way to express this darkness inside me, I, at last, reached a meaningful conclusion; I will depict the wonder of life, that is: the closer to death, the more beautiful life. All living things, including humans, cannot escape death.

The moth is a symbol of human. However, as my work progressed, I came to realise that this scene reveals that humans are burned by their own civilisation.



Fig. 47 Nakamura Y. They, reaching heights. Colour on Japanese paper. 227.3×181.8cm. 2011.

¹⁰³Jung. *Pshychologie und Alchemie*. 63-67.

The scenes shown in Figures 46 and 47 have something in common with the work of Hieronymus Bosch (1450?-1516) that portrays his near-death experience (Figure 48). The light on the other side is linked to the memory of the brilliant light seen by baby as it makes its way down the birth canal. This expression or the image of mother's womb is what I always thought about regarding the initial stage of life.



⊠ 48 Hieronymus Bosch. Terrestrial Paradise-Paradise-Ascent of the Blessed. Oil on the panel. 56.5×39.5cm. Palazzo Ducale, Venice. 1500-1504.

I have used scattered patterns in almost all my work (Figure 45) which are inspired by the sliding screen painting "Landscapes" (Figure 49) by Tohaku Hasegawa (1539-1610). The printed patterns on the screens seem like "the wall-like boundary" separating people. In addition to this, this image also suggests the presence of an unknowable world beyond the screen.



Figu. 49 Tohaku Hasegawa. Sansui-zu (Landscapes). Colour on paper. 177.0cmx116.0cm. Muromachi period, Entoku-In Sub-temple of Kodai-ji Temple.

4-2 Doctoral art work

(1) Overcoming the wall of difference

Figure 50 is my first art work after returning from the United States was shown in a gallery. The characteristics of this work are the different colour sense and space compared to my earlier art. The more colours I added, the more transparent and illusionary the screen. The silent world is looking back at me in a paper-thin and hazed worldview. I depict the darkness here and there and use English letters as a hidden message to portray my pain. The dusty-red fragments covering the screen are symbols of pain, or alienation inspired by the sword of Cherubim who barred Adam and Eve from Paradise which the context of my identity when I stayed in the United States, I frequently used white touches reminiscent of abstract painting, which represent the roaring sound heard in the soundless world.



Fig. 50 Nakamura Y. Paper-thin Manhattan 1- Without words. Frame, Japanese paper, dye and acrylics. 53.0×45.5cm. 2014.

These abstract walls stretching out all over the surface of the screen carries the message that it is not at all easy for people to overcome pain and reach mutual understanding. After using only acrylics for a year, I intentionally began to mix a small quantity of mineral pigment for this work so that I could gradually go back to Japanese painting which I produced with glue and mineral pigment.



Fig. 51 Nakamura Y. Language Barrier, Rethink language. Writing message, Japanese paper, whitewash, natural dye and acrylics. 162.0×1303.0cm. 2014, exhibited at the joint exhibition of doctoral students.

In Figure 51, I posed a question about the very nature of the world, by eliminating beauty and universality as much as possible. Materials such as memo paper and notes are those that I use for communication. I pasted them on the support painted with layers of acrylics, chalk and natural dye, and it is lined with thin Japanese paper. In addition, natural astringent dye is lightly applied on the surface, while the sides are covered by Japanese Mulberry paper (Kozo-gami). This approach resulted in a thin veil-like expression like the language barrier that acknowledges a re-thinking of language. After my cochlear implant, everyday conversation improved, but I cannot pick up even the simplest words in English. In the United States, I always used American Sign Language and written messages to hold a conversation. This experience evoked my discomfort that I had before, which inevitably forced me to re-think what words and sounds mean.



Fig. 52 Nakamura Y. Soundless world ringing eternally – Boundary between conscious and unconscious. Black Japanese paper, cotton cloth, dye, resin and mineral pigment. 145.5×112.0cm. 2014. Exhibited at the joint exhibition of doctoral students.

The work shown in Figure 52 is a re-composition of the fragmented pieces of my existing art work painted when I was swallowed into the soundless world such as Figure 41. This work shows my contradictory situation in which I live in this soundless world, even though I can hear sound with the artificial cochlear. The work is put in a box-shaped black trim similar to a coffin, which raises the image of a continuous roaring sound. This strange paradox "have but not have" is a new identity, that I, as a cochlear implant wearer today, requires a re-thinking about the world of the conscious and the unconscious. I marked off pieces of the panel to suggest that time does not flow in the world of the unconscious, but is divided. For example, as shown in Chapter 1, people who live in the soundless world need more time to understand what others are saying and try to figure out the meaning in chronological order, because the processing system of our brains are different from normal hearers. However, this new hearing experience gave me a clear distinction between the conscious and the unconscious, and now I've got two different time senses. Thus, a group of the fragmented pieces is located in the middle of the screen compared to having a margin from the frame that represents the world of the conscious.

(2) Phoenix going through a never-ending circle of life and death

"Phoenix" in fire. Phoenix is a motif that I, being fascinated by this transcendent bird repeating death and rebirth, painted several times. This is partly because of the influence of the comic books and animation films of Osamu Tezuka (1928-1989) that I was familiar with in my childhood, and partly because the Phoenix is for me a symbol of eternity as well as salvation. I was impressed with this idea and extraordinary vision of Tezuka, who was entirely different from other animators.

In the United States, I painted a black fire bird on the wall of a room as shown in Figure 53. This work is characterised by the realistic expression of the bird's face and the Pollock-like touch of street art that I often encountered in the United States. Free art paintings found throughout cities have surprising power and are embellished with interesting techniques. Nevertheless, they are destined to be erased within a couple of months, which appeals to viewers because of their short life span.

As seen in Five Points, New York's Graffiti Mecca, street art is the testimony of youth raising objections to the income gap in American society. Letters discreetly located on both sides of the black bird are the onomatopoeia of comics. I grew up imagining real sounds with the help of comics' onomatopoeia because of my difficulties of hearing environmental sounds, apart from the difficulties in learning the language and letters. The letters in this work are borrowed from, for example, wind blowing scenes of comics "whoosh" described in larger letters and in different colours.



Fig. 53 Nakamura Y. Black fire bird. Writing message, Japanese paper, dye, acrylics, paint and pain spray. 500.05×1000.0×700.0cm. 2014. Exhibited at the joint exhibition of doctoral students. After returning to Japan, I used acrylics for a while, but the eagle of Figure 54 is my first work painted exclusively with mineral pigment and dye. The eagle is a symbol of eternity and power. The overlapping eagles seem as stable as the tower of Babel in which power and fragility contradictorily co-exist.



Fig. 52 Nakamura Y. Soar. Colours in paper. 145.5×112.0cm. 2014.

I mixed natural dye with a very small amount of chemical dye on previously crumpled Japanese paper. Then, I painted only with natural mineral pigment, which created a warm tone. The screen tainted with mono-tone suggests my soundless world view. Immediately after the Great East Japan Earthquake on March 11th 2011, I found myself not able to paint at all. The screen blacked out, and I could not paint anything but the smoke-like forms emerging in the dark when I prepared art work for my personal exhibition. Later, I participated in an art project for people living in temporary shelters. The birds like eagles and crows powerfully spreading wings are an image that first emerged in my mind when I began to work on the painting to encourage them. Phoenix rising from the ashes is a prototype of this image.

(3) Japanese Painting Thesis: "Causalsia – Recovery as a process of alchemy

The thesis painting of Figure 55 shows butterflies flying in a chaotic soundless world where water and fire co-exist. The title "Causalsia" is a chronic pain with a burning sensation, or incurable nerve pain. The title of the work refers also to psychogenic pain compared to "pain of the boundary wall". I always thought that my incurable psychogenic pain caused by hearing disability had something in common with this type of pain with a burning sensation. For this reason, I expressed causalsia in the form of fire. In addition, I put a design of ancient patterns that seem to have been used by my ancestors to build the double "boundary wall". These patterns have destabilised my identity and given me trouble since my childhood. Butterflies, the avatars of sounds and words, are flying over a boundary blocked by the patterns and fire. I depicted this scene hoping to overcome the boundary on my own initiative and recover my ego. Even though I acquired listening thanks to the cochlear implant, my hearing is not completely fixed. Difficult situations can reawaken chronic pain that once faded away. So, I decided to describe my hope for going ahead by accepting my disability.

"Alchemy" in the subtitle refers originally to the craft of artificially producing gold. Ancient alchemists produced not only gold, but they studied human nature (soul) and the process of its development¹⁰⁴. According to their research, our souls travel from

¹⁰⁴Hayashi. Jung no Shiso no Sinzui. 213-216.

the world of darkness filled with agony through a spiritual rebirth of the mind, and finally reaches integration at a higher level by conquering the confrontation between light and darkness. This alchemic traveling of the soul seems to be true for my past. For example, when I lived in the soundless world, I lived in close proximity to the world of the unconscious, whereas newly acquired implant gave me the conscious world, which re-established my awareness. Moreover, while this process made me rethink the "language-sound" and "conscious-unconscious", I can now appreciate the soundless world as worthwhile.

The chaotic world covering the screen refers to the perceptual expression of the soundless world, which I used to depict when I was deaf as shown in Figure 41. Contrarily, I depicted this work regarding the harmony of water and fire, in which the soundless world has flexibility to soften the effect of a fire-like boundary wall.



Fig. 53 Nakamura Y. Causalsia – Ricovery as a process of alchemy. Colours in paper. 198.0×388.0. Doctoral work. It is known that alchemists aimed at the coexistence of disparate natures. For example, as shown in Figure 56, the harmony of the world was sometimes represented with the combination of two opposite concepts such as sun-moon, man-woman (king-queen) and androgyny. Jung defined this state as the symbol of self/*selbst*, as well as the recovery of the ego-*selbst* that leads to personalisation¹⁰⁵.



Fig. 56 Androgyny

In creating this work, I first laid a sheet of Japanese paper on the floor and dyed it as blood-red as possible. A very small amount of chemical dye is used for this process which helps make a deep blood-red tone. However, as a result, the surface became fuzzy and coarse because the glue did not prevent the running of colours. Moreover, this elaborate process made it difficult to paint, and the colours separated. The paper I used was not sufficiently crumpled to make a shrivelled expression and was fragmented. Consequently, I put natural mineral pigment and natural dye very thinly like a veil on the dyed Japanese paper pasted on the panel. I prefer a very thin and veil-like expression to thick colours probably because such expression is directly linked with my perception that is mentioned above.

¹⁰⁵Hayashi. Jung shiso no Shinzui. 211, 221-227.
The butterflies are painted with ink and natural mineral pigment. "The words" are abundant in both paintings exhibited at the doctoral exhibition shown in Figure 51 and "sounds bleed into the soundless world" shown in Figure 52.

With the help of gold-paint and ink, I repeatedly put layers over the thin screen in order to express intensity. These techniques and colour sense are the result of the dialogue within my world.

Conclusion

In this doctoral thesis, I examined the pain of alienation and what lies behind it. Looking back on my own experiences of alienation made me understand clearly about the place to which I belong. Nevertheless, it means neither that my complex can be easily healed nor that I can overcome the wall of alienation today. I now believe that my conflict has accrued slowly and that I have to continue to explore the nature of the "wall-like boundary" through my art work.

The hearing disabled have, firstly, difficulties understanding words, and is even more arduous for them to explain to others about their hearing loss with their own words.

My experience in mainstream school made it difficult to accept my identity as hearing disabled, and before I decided on the subject of this doctoral thesis, it never occurred to me to investigate the brain or suffering of hearing disabled people. Therefore, scientific analyses on auditory perception lead me to acknowledge my own situation. Now I feel I can finally stand at the starting line.

These paintings give us a clue to understand "who I am?" I, however, suffered for a long time because I could not understand why everything was disappearing from the screen, just as words from my brain. As mentioned above, sounds are able to evoke the meaning of life and make a decisive impact on our sensibilities. A child who acquired hearing by cochlear implant once said that a creaky chair seemed like a living creature¹⁰⁶, which demonstrates change before and after the cochlear implant. I can feel nature more vividly after seeing how fierce thunder and storm winds are. I realised, just as music consoles our anxiety, how sound can have an immense impact on our minds.

To avoid any misconceptions, it should be stated that cochlear implants do not resolve all the problems of hearing loss. I still return to the silent world in my sleep because I turn the speech processor (external part) off when I go to bed, and consequently my dreams are still soundless. I sometimes take the device off during waking hours, especially when I have a headache due to noisy environmental sounds. However, what is different from before is that the sound world began to interfere in my soundless world,

¹⁰⁶According to Ms Kimie Nakamura, a part-time lecture at National Rehabilitation Center for Persons with Disabilities.

and one example is stereoscopy. Previously, my own existence was a simple reflection of my internal world, but, now, having the implant, I was clearly separated from my soundless world. Just as Adam and Eve began to understand the sense of self in the epic poem Paradise Lost, I acquired a new point of view from the outside to observe my internal self. In other words, I can view the soundless world from outside.

The same is true when I hold a conversation. The easier I can communicate with other people, the more I can think about other things, which allows me to analyse my situation in the past when I was in my soundless world. As a result of this change, I slowly began to shed light on self-denial, a typical attitude that I still have today, from a different perspective than before. My future goal is to continue my art work accepting my hearing disability as well as looking at the nature of pain of alienation under a wider perspective.

Whenever we watch the nightly news, we see a flood of issues regarding the disabled and ethnic hatred in all parts of the world. It is easy to say "others and I do not see the world with the same values", but it is more difficult for humans to understand than one might imagine. Everyone, more or less, differentiates and excludes instinctively other people who are different.

"Discrimination" is a difficult term to deal with, and it is difficult to draw a line between what is discrimination and what is not.

Living in the United States with Americans and speaking with Asian people who live there, I have recognised that the same question we ask people from other nations "Why do you do that?" is echoed back to ourselves. In my opinion, we should put these feelings into words to resolve these issues. It should be remembered that all humans belong to the same species but everyone is different with contrasting values.

As a little pebble can stir the surface of water, more and more people are required to recognise the importance of making a modest effort. A pebble that has been thrown would reach far into the future, transcending time.

In closing, I would like to explain the reason why I am working hard towards my doctorate. This is to demonstrate the potential of the disabled. Even though there are people who find it difficult to get involved with the disabled, it would be possible, in my opinion, to find common ground so that we can achieve new values and broaden our

perspectives that we never had before. I conclude this study, hoping for the capability of society where people recognise and respect each other's values, coexisting peacefully.

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Figure 1

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Figure 2

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Figure 3

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Acknowledgements

First and foremost, I would like to thank my supervisors Professors Norihiko Saito, Kazuho Ueda and Sekide for their invaluable guidance in helping with my work on this doctoral thesis.

A big thanks goes to Maestro Hiroshi Senju, Ms Hiromi, Mr Masaya Saiki and all the staff for their considerable help that enabled me to complete this thesis.

It was Mr. Ayumu Kubo who first introduced me to the concept of normalisation that I mentioned in the thesis. This study was conceived from a conversation with him that began when I went to cram school. I highly appreciate his patience.

Finally, further thanks to Mr. Shorahisa Kouda and all my university colleagues for spending their precious time helping me, including note-tanking. Without their help, I would not have completed graduate school.