Original Creativity

An Autobiography

Author Shunji Murai

Translator Suvit Vibulsresth

National Library of Thailand Cataloging in Publication Data

Shunji Murai.
Original Creativity.-- Bangkok : Chulalongkorn University Press, 2023.
232 p.

1. Creative thinking. I. Suvit Vibulsreth, tr. II. Title.

153.42
ISBN 978-616-604-844-5

Published by Dr. Shunji Murai
First Print 800 Copies (October, 2023)

Printed by Chulalongkorn University Press [CUP6612-142]
Phyathai Road, Wangmai, Pathumwan,
Bangkok 10330, THAILAND.
Tel. 0-2218-3550
www.cupress.chula.ac.th

The perfume of flowers blows not
against the wind,
Nor does the fragrance of
Sandal wood, tagara and jasmine,
But the fragrance of the virtuous
blows against the wind,
The virtuous man pervades all directions.

Foreword

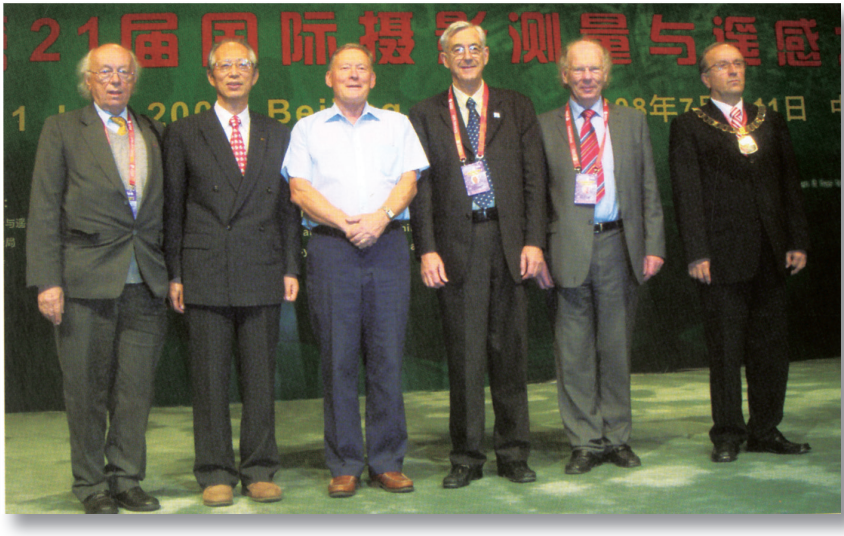
It is a great honor and privilege for me to translate the book "Original Creativity", an autobiography in Japanese of Professor Shunji Murai who is my mentor and colleague into English. I used to translate the book "Wings of Fire", an autobiography of Dr. A.P.J. Abdul Kalam, former president of India into Thai. I found similar creativity spirit and steadfast willpower in these two great men, especially about things to be delivered to the young generation.

Readers will appreciate what he narrated in the book, from his unique creativity since childhood to his success in his career based on survival instinct and premonition. How he followed the teachings of his mentors on bringing up his children and on leadership and management of academic society is worthy of commendation. His continuous work on earthquake prediction using remote sensing technology reflects his great compassion for mankind.

Not only people in the field of geoinformatics but also people in other fields at large could reap much benefits from his experience as described in this book.

Lastly I would like to thank CU Press for the arduous work and patience in bringing out this book.

Dr. Suvit Vibulsresth



Former presidents of ISPRS in Beijing (2008),
from left Konecny, Murai, Fritz, Trinder, Dowman, Altan.

May 1985 in the garden of the house at Sakuragaoka, mother 72, father 78.

Mother died on October 20 1997, age 84.

Father died on December 20 1986 age 79.

Professor Murai had an audience with HRH Princess Sirindhorn
to present book of Original Creativity in Thai. (short version)

Her Royal Highness Princess Maha Chakri Sirindhorn of Thailand making her opening address at the 9th ACRS.

Princess Awarding "Boon Indrambarya Medal" to Professor Shunji Murai

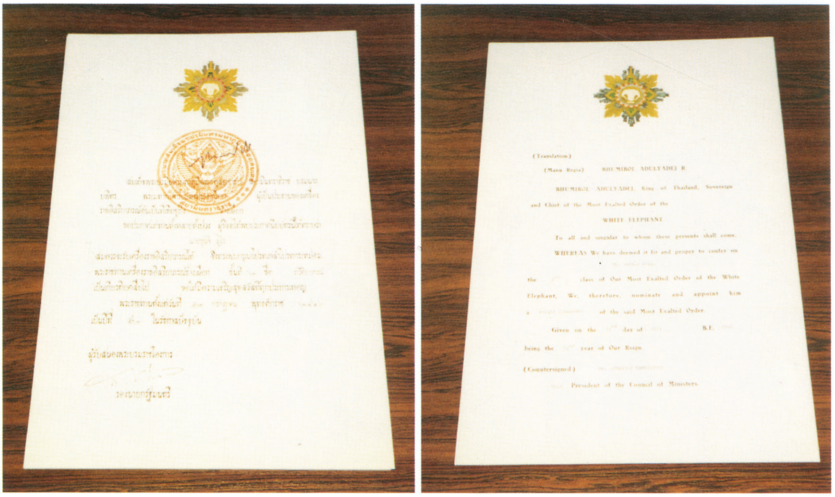
Opening Session in progress- Late Dr. Sanga Sabhasri on the left, next to him is Dr. Anuwat Wattanapongsiri, the Minister of Science, Technology & Energy of Thailand.

A session on panel discussion in progress presided over by Dr. Sanga Sabhasri

HRH Princess Sirindhorn graciously presided over the opening of GIC Building at AIT.

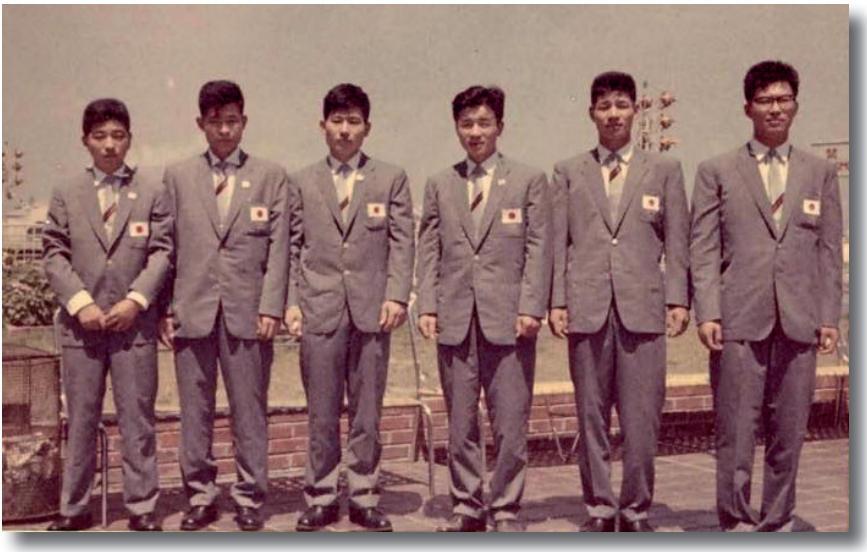
Professor Murai with the recipients of Dr. Boon Indrambarya Gold Medal at the 20th ACRS in Hong Kong, China, in 1999.

Professor Chen Shupeng, Professor Deekshatulu, Dr.Heng L. Thung



The Most Exalted Order of the White Elephant Decoration Certificate of the Royal Thai Government. (Original in Thai and English Translation)

Professor Murai being congratulated from Professor Dr. Pradisth Cheosakul, former Secretary-General, NRCT, on his receiving the decoration.



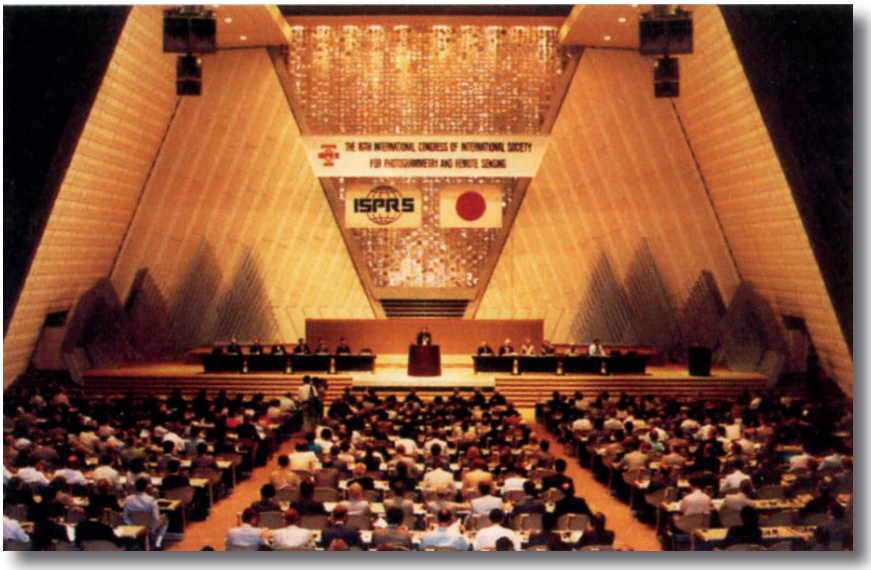
Japanese Regatta team at Rome Olympics.

Professor & Mrs Murai in traditional Japanese costume at Honorary Ph.D. degree presentation ceremony at ETH, Switzerland.

HRH Princess Sirindhorn conducting ground truth survey of Landsat TM land use change project.


Welcome To The 8TH Asian Conference on Remote Sensing
OCTOBER 22-27, 1987
JAKARTA - INDONESIA
THE 8TH ASIAN CONFERENCE ON REMOTE SENSING
OCTOBER 22-27, 1987 JAKARTA - INDONESIA


P.T.T



ISPRS Congress at Kyoto International Conference Center, in 1988.

Professor Murai, President of ISPRS addressing the participants at the Congress.

25th ACRS – Thailand 2004

The Felicitation Book being presented to HRH Highness Princess Sirindhorn

At Bansuan house in Thailand with friends and students.

SEIKEN(IIS) in winter (above) and spring (below)


RESTEC

Murai Shunji

My Life of Original Creativity

Purpose of this book

Having reached the mature age of 65 years almost 20 years ago, I am now approaching 85 years old and even though my willpower is still strong, my physical strength is deteriorating. My mental capacity which was my pride is also fading, making me feel uneasy about being unable to correctly recollect my past. Eyesight is my weak point since it has declined considerably in recent years, resulting in my inability to read small characters in the newspaper. Seniors used to say that there is a wall at the age of 80, after which our bodies do not follow our orders. That truth is now clear to me.

Therefore, while body and memory still function even at a lesser degree, I would like to record details of my life for my family, friends and students so that they can learn of my past life experiences.

In short, the approximately 80 years can be described as striving for "original creativity". I am a stubborn man who does not listen to others; indeed I am a strange man not interested in common sense or worldly customs; I am a man who thinks or takes extreme actions individually and maps out a strategy to achieve success by my own means. Once the decision has been made, no compromise is allowed; despite resistance in some cases, I remain unmoved, and determination brings about success in almost every case. First of all, I will consider deeply the purpose of taking certain actions and the objective of the task, without consulting books, TV or newspapers, which include sayings or ideas of other people. All my senses, which include my survival instincts and premonition of failure, are considered without discarding any possibilities, and from the selected options for action, I seek the best solution for the task. Of course, I realize that I am therefore solely responsible for the decisions.

If no real examples are given, readers might not understand my approach, so I will list some decisions that I took in each stage of my life. The full story and the results of my decisions will be described in detail later.

- After a ronin period for one year, I passed the entrance examination to study at the University of Tokyo. I decided to join the rowing club of the University and enter for competitive selection to represent Japan at Rome Olympic in 1960.

- After graduated from the University, I decided to work for a foreign consulting company and was dispatched as a member of the survey team for the construction of a dam in a remote area of Ghana in Africa, where I opposed a ruling by the company in order to prevent the staff from contracting malaria.
- I learned to serve my country modestly as a researcher at Maruyasu Laboratory of the Institute of Industrial Science of the University of Tokyo.
- I selected my own theme of study, even when I was told to write up the doctoral dissertation in engineering.
- I decided to separate from Professor Maruyasu who originally was my mentor.
- I gave original guidance to students once the Murai Laboratory became independent.
- I took measures to rebuild the Japan Photogrammetry of Society which was on the verge of being dissolved.
- Steps were taken, in Murai style, for Japan to be a candidate in 1980 for hosting of ISPRS (International Society for Photogrammetry and Remote Sensing) Congress, with eventual success of the Congress.
- Events were taken to improve the strategic structure of ISPRS after I became Secretary General and then voted as President of ISPRS.
- Development of the philosophy and strategies for the successful formation of the Asian Conference on Remote sensing (ACRS)

in 1980, which continues to function successfully.

- Decisions about my daily life after retirement from Professorship of the University of Tokyo in 2000.
- The decision following solicitations to carry out research on earthquake prediction.
- The decision to set up the earthquake science research agency as a company in 2013.
- The decision of both my wife and I to raise our children without forcing them to study hard.

Since there will be no contents page, the story of my life will be based on the following headings:

1. My family and my childhood period
2. Introducing my family
3. Reminiscences of my childhood
4. Primary and secondary school periods
5. High school period (including ronin period)
6. University period (indulgence in competitive rowing)
7. Participating in the Rome Olympics
8. As staff of an overseas trading company
9. Murai Laboratory period of IIS, University of Tokyo
10. Rebuilding of the Japan Society of Photogrammetry (JSP)
11. Establishment of ACRS and the Conferences
12. ISPRS Conference in Kyoto and as an Executive Director of ISPRS

❶ My family and my childhood period

My father was a member of one tribe of Morioka City in Iwate Prefecture (formerly called Nambu Clan). He was the descendent of Murai Mohei, usually called "Unlucky rich merchant" during the Meiji Restoration Period. Murai Mohei (also called Kagiya Kyosuke) was a rich merchant trading in clothes apparel. It was also said that he owned Osarizawa Copper Mine. Rumours said that he provided financial support to Nambu Clan, so he was treated as samurai and his achievement was widely known and recorded. His ancestor seemed to be a merchant of Ohmi Clan and well versed in trading. The fact that I am rather good at business might have been influenced by blood relation of my ancestors.

It was said that the owner of Japanese sake brewery called "Asabiraki" was also of Murai family. In the city of Morioka, there was a temple called "Gankyoji" with the cemetery of Murai family. I used to visit the temple which kept a wooden board with the story of Murai Mohei dating back to Meiji Restoration Period. After Meiji Restoration, Satsuma Clan and Choshu Clan became the government. During Boshin war, Nambu Clan demanded financial support for the military for 70,000 ryo which Murai Mohei helped financed as requested. However, such mode of finance to the clan chief was considered as lending money to Shogunate and was quite scary. The new Meiji government then forfeited Osarizawa Copper Mine and other properties. Consequently,

Murai Mohei filed a lawsuit against Meiji government. The story of the event appeared in the book called “Saigetsu”, a novel written be Shiba Ryotaro, with details covering several pages. Final judgement of the court only retained his reputation but not the copper mine and other properties.

I used to visit “Asabiraki” sake brewery myself without mentioning my name. I was shocked to know that it was also a French restaurant. As for my house, we used to drink “Asabiraki” sake since long time ago and also used as food condiment.

My father Murai Sakari was the eldest son of Murai Tsuneji. His mother died from disease at young age. My father then was looked after by Kayo, foster mother. This might be the reason why he did not have quite good character and easily lost his temper and often quarrelled with his wife in front of the children. He used to let me see his school record during secondary school and during Hirosaki High School and when studied at Kyoto Imperial University. Almost every subject was marked excellent, which shocked me. During high school, he used to be main player of tennis tournament. At that time, cheering team was very arrogant. If the game was lost, they would quarrel with the cheering team of the opposite. Sometimes, the players of the losing team might be punished by their own cheering team.

During my Primary School period, after dinner, my father would teach calculation lesson in a strict way. As soon as he finished

asking the question, he demanded the answer immediately without allowing time to think. If I did not answer quickly, I would be hit with bamboo cane. For example, a thread 12 centimeter long, if cut into 1 to 2 division, how long those threads would be. If not answered immediately punishment by cane was imminent. Finally at my crying, mother would come nearby. This time father would teach kindly. Every night after dinner for me this was the time of my sorrow. However, with the benevolence of his strict teaching calculation and mathematics became my favorite subjects. The fact that I could pass the entrance examination of the University of Tokyo (from now on called Todai) was due to the power of mathematics received from father's teaching. I feel much obliged to him. Mathematics or geometry, statistcs or probability theory which my classmates abhorred, became my point getter. this might be the gift for my education.

I did not have the opportunity to serve my father for long since he died just before the age of 80. There was only one thing that I did earnestly for him. During the golf fever period, by different reasons, I received three member cards of golf clubs. I transferred the one at Hachioji to him. Normally he would join the company golf outing once in a few months and would say what a pity if he could not join. However, after the card was changed to his name, he went to play every week and enjoyed his life after retirement. But less than one year, he suffered from Ischemic stroke and could no longer play his favourite golf, necessitating the sale of his

member card for quite a large sum of money. He did not tell me but phoned Taeko, my wife saying “Taeko san, I will treat you at sushi restaurant in Seiseki Sakuragaoka. please come.” Taeko went to have sushi with my father. After returning home, she felt like being cheated. She learned later that my father had sold the member card of the golf club and with that money gave her a treat.

On the other side, my father was quite playful like small kids. My children used to tell me that when he took his elder grandson Kenji and younger grandson Tetsuya when they were in primary school to buy chess at a store in Shinjuku, grandfather said “I will go after the beautiful girl there” which amused the grandsons very much. My amazing father leaving good impression on his grandsons was a blessing.

Now I will turn to talk about my mother. The birth place of my mother Chieko was in the village called Natori in Murayama City in Yamagata Prefecture. Her family was the owner of a large piece of land. Her father was Sudo Yoshinori. My mother was the six sibling with one elder sister (foster child), four elder brothers, one younger brother, and one younger sister. The elder sister was the foster child because at the beginning there was no offspring, so a foster child was adopted. But after that they had their own children.

My mother was the daughter of a landlord. During primary school she received much attention and was very active in sports as a fast runner. She lived in a large house with many servants. The garden was beautiful with landscape mountain. Under the house there was a small stream passing though. I remembered that in summer fireflies were all over the place. However Sudo family was unfortunate. Four elder brothers including the eldest contracted tuberculosis and died at young age.

Only one brother survived whose son was Sudo Koichi, my step brother who was brought up by the eldest daughter who was his aunt.

After the war life was quite difficult. The aunt sold off land piece by piece and other properties to support the living. Finally all the land of the landlord and other properties disappeared. My mother reminisced the happy moment as landlord who had to become just ordinary farmer. She came to live in Tokyo and worked with the real estate contractor and my present house in Hachioji was also built by this contractor. Once I took mother to visit her birthplace which had nothing left. She sat on the floor of the house of her friend that we visited and talked about stories of childhood period. We also visited the cemetery in the Lotus Shrine inside Bodhi Temple. We also visited the house of a relative who looked after the cemetery, but my step brother who was same age with me and as successor was irresponsible. He did not pay

the maintenance fee to the relative who looked after the cemetery. Consequently I sent the maintenance fee of 30,000 yen every year to the relative and will do so as long as possible.

My grandfather who was the father of my mother passed away before I had the chance to meet him. At that time, no people from Natori village went to further the study at the university, but my grandfather after graduating from Kumamoto High School, went to study medicine at Tohoku University and became village doctor after graduation. It was said that he came to live in the village with the condition that he could do anything he liked.

My grandfather had several hobbies. He invited professional painters, sculptors, writers etc. to live in and taught him different techniques. He had made several good pieces of work. Those artists he hired had presented to him several artist works to express their gratitude which he kept in a large storage room with a watchman. The aunt and my step brother Koichi who inherited these sold the art work piece by piece for money. In my house several pieces my mother received from my grand father still remained. The most valuable one was the paper written horizontally “Toku On Kore Shigeru” (Voice of Merit is Prosperity) written by Doi Bansui when he stayed at grand father’s house for a long time. I had it framed properly and the owner of the frame shop liked it so much that he requested to hang it at his shop for a month.

I could not hold back my humiliation when I looked back at the bitterness of my mother. After the death of my father, there arose the problem of land and house inheritance at Seiseki Sakuragaoka. My mother was born in the house of landlord in Yamagata Prefecture, so she sticked to the “eldest-son-takes all” doctrine. Since the eldest son stayed with her it would seem natural to give 100% inheritance to my elder brother. My elder brother asked my elder sister and two younger sisters to sign the paper of acceptance. However, my two younger sisters even though they wanted to further their study in the university but could only finish high school and had to work. So they were very resentful and did not like cold treatment they received. Consequently they brought the case to court and requested the right to handle the inheritance. My elder sister and myself stood in between but leaned towards younger sisters. This thing should not happen. Finally, the ruling of the court was such that 28 million yen retirement lump sum grant of my elder brother from Tokyo Marine Co.Ltd. was to be divided equally into 4 parts and given to us, each receiving 7 million yen. This episode separated us from my mother. In fact, Taeko my wife’s family also faced the same fate. Inheritance struggle cut off relationship with her father and her younger sister. Therefore in order not to see our sons struggle for inheritance, we asked the lawyer and tax official to explain to our sons for good understanding and mutual agreement which had been posted with the authority.

"Eldest son first" doctrine of my mother was practiced to the extreme since secondary school. Elder brother was provided with tutor. Meat food during dinner was reserved only for father and elder brother. I did not feel strange but the two younger sisters could not stand this. Though I sympathized with the feeling of my younger sisters but I did not like the way it was.

Let me introduce my siblings. Elder brother Masamori was 3 years older than me. He died before reaching the age of 70. By the "eldest-son-first" doctrine of my mother, he received good education since childhood and had a special status among brother and sisters. It was difficult to befriend with him. Since secondary school a university student was hired to give him special tuition. Two younger sisters also distanced themselves like me. On the other hand, my younger sister three years younger (Haruko) and six years younger (Kyoko) and me were close to each other. Whereas the eldest sister (Hisako) was the eldest daughter next to the eldest son, so she also received special treatment from my mother and learned piano since childhood, aiming to study at Geidai. Piano lesson was quite expensive. My mother had me learn harmonica. Thinking back, the family income at that time was not high, but much was spent on the education of the children. Two younger sisters used to study piano for some time but did not receive any special treatment.

Elder sister Hisako had feeble body since childhood but had strong will, or even stubborn. At home economic class during secondary school, she was taught that western bread was good for the body more than rice. So she declared that "From now on I will eat only bread" and started to eat only bread every meal. Though her body was weak, but she always came first in running race. Once she was taught that rope jumping was good for the body, she then rope jumped 1000 times a day. Whereas younger sister Haruko did not fare well in study but had good temper. Youngest sister Kyoto had a rather strong character, and had conflicts with elder brothers and elder sisters quite often. But she was quite good to me for unknown reason. However I was not close to younger sisters. Women would not listen to what others said and just talked about their own story in a quick manner, even I sat dumb founded. Murai family's weak point was the habit to talk too much without listening to what others said, especially those women. I wanted to leave this house as quick as possible. Moreover, elder sister Hisako (nickname Chachan)'s determination to pass the entrance examination of Geidai prompted her to practice piano eight hours a day. This became a hindrance to my study for university entrance examination. Such nuisance provoked the neighbor to put harassment paper on our house. When I went for camp training of boat club of Todai in my first year at the university, I was so happy to be released from this annoying house.

My mother who paid much attention to education sent me to study in the university. I could not pass the entrance examination on the first year, and had to undergo tutorship for one year. My mother paid the expense for this. However, my two younger sisters did not have the chance to enter the university. After graduating from high school they had to work immediately, and this was the factor which gave rise to the inheritance struggle which I will deliberate later. Now elder brother, elder sister and youngest sister Kyoko were no longer in this world. Only my younger sister Haruko and myself still survive.

❷ Introducing my family

At that time I was a research assistant at the Institute of Industrial Science (IIS) of the University of Tokyo with a meagre salary of 40,000 yen. One of my father in law's acquaintance had a house in Asagaya but had to move to be stationed in Osaka for two years. So the house was let to us for two years only at the monthly rent of 20,000 yen. This meant we had to start our new family after wedding with half of my salary, a very poor family. Taeko's family upon hearing that "Before she could eat the fruits she likes any time, but not now", tried to send to her favourite fruits from time to time

I tried to supplement my income by teaching survey courses at Engineering Department of Hosei University as non permanent lecturer but the salary was only 3000 yen. Household expenditure of Taeko was quite difficult to manage. The tuition fee of household tutors once a week was around 3000 yen per month. So the income of the non-permanent lecturer of the university was in par with that of household tutor. At that time I made up my mind firmly that in the future I would not let my wife to be troubled with money matters. In conclusion, although Taeko was inflicted with stroke (constricted blood vessels in the brain), with weakness in the left leg, but she had money to take a taxi and to do shopping by herself.

Not long after our marriage, we were blessed with the first son, Kenji. Once when she was pregnant and felt hungry, I went out to buy 20 steamed dumpling at 5 yen per piece totaling 100 yen at the shop around Asagaya for her. Even though she wanted to spare some for me, but after started eating, she could not stop and ate all. She apologized to me but later I learned that having gone through difficult period made me understand the feeling of poor people in Asian countries.

While spending time after newly wed period, we met an important person. He was Arai Michio Sensei, a senior of boat club of Todai who graduated from medical school of Todai and became head of medicine ward at Kawakita Hospital at Asagaya. At that time he opened a clinic called Arai near my house. Since Kenji was a sickly baby and had to receive check-up regularly and Taeko was also often sicked, they both went to the clinic together very often. In such case, Dr. Arai cancelled the check-up of other patients and spent two hours for mother-son check-up, sometimes even past lunch time. Not only about sickness and health problem but also how to live and sometimes even his unique philosophy of life that Dr. Arai talked to Taeko. To this Taeko was not reserved and had expressed her opinion frankly. Once Arai Sensei said “Next time please bring Murai with you” and I followed her. Then Sensei said “Murai graduated from Todai and you graduated from Ochanomizudai, so I am worried about your children, Please listen to me. In the future, do not force

the kids to study hard. If you insist them too much, they may become neurosis or depressive. Neurotic disorders are uncurable disease. Even myself cannot handle."

Our couple abided by his teaching and never said to our sons Kenji and Tetsuya to "study hard" even once. Both our sons liked to play sports such as baseball, rugby and were crazy about invader game. They did not pay much attention to studying until third year of secondary school. Before entering high school, they were told by their teachers that if they did not pay attention to study, the girls would laugh at them that they could only finish high school level. So they started to study earnestly. Both studied at private high school with dormitory and left to live independently. After one year ronin life, the elder son entered Economics Department of Keio University whereas the younger son studied at Economics Department of Kobe University.

My eldest son used to be first league player of rugby and my youngest son immersed in American football of the universities and both of them hardly studied at all like myself. But after graduation they got married and produced grand children for us to admire and also looked after us. We are much grateful to Arai Sensei for making us keep his teachings. It is fortunate that both our sons also kept our teachings such that they never exhorted their children to study hard. We are delighted to see our grand children live a bright and happy life.

Two years passed by and we moved to live in the government welfare house newly built at Musashi Murayama. Our second son Tetsuya was born here. As monthly official house rent was only 1750 yen, it was quite cheap making our life turn much easier. The dissertation (doctoral) which was completed while living at Asagaya passed the examination and I received Doctor of Engineering degree which helped to promote me from research assistant to the position of lecturer, the lowest rank of teaching staff of Todai. I was shocked to see that societal attitude towards me changed suddenly. I did not like to be called Todai sensei. Even now I am Professor Emeritus of Todai but I do not like to be treated as a big professor. Life about research in Todai will be described later.

Taeko also wanted to help supplement our family income even a small amount. She went to become non permanent lecturer in geography at Jiyugakuen College. I also became non permanent lecturer at Tetsudo Gakuen College of Japan Railway, Hosei University, Kanagawa University, etc. to add to the family income.

Finally, in 1971 I was promoted to the position of Associate Professor. In the following year, i.e., 1972 there happened a great change for my research life and also my family. On July 23 1972 United States launched Earth Resources Observation Satellite (Landsat-1) into earth orbit to take digital photos of the earth.

Just by paying some money, one could get satellite photos of any place on earth. This was the forefront of the evolution of science and technology and was called remote sensing and became the subject of research which I could concentrate on. In the United States, an international conference on this new technology of remote sensing was held outside Washington D.C. which I also attended and presented a paper. On the return trip as the plane was heading to land at Haneda Airport, I saw the scary thick pale purple layer of smog pollution, reflecting the worst pollution period of Japan. I was shocked and had a premonition that in the near future, there would be a great atmospheric change on our planet. This was my animal instinct and I went on to think that if such thing happened, then how could I take care of my family. I kept on thinking till the plane landed. My answer was quite simple. If I just continued to live in the government house I might lose my living habitat. The solution was quite straight forward ; to build my own house at any cost.

After returning home, I asked my wife, Taeko to make plane drawing of the new house within a week, because house wife would know best what the arrangement of each room in the house should be. Taeko said that we probably did not have enough money to build a house, for which I answered that money was the responsibility of husband, Taeko just draw a house plan. At any rate, this must be handled quickly. I then asked Mr. Hosoya Seiya who became a land developer in Tokyo from Natori,

the birthplace of my mother, to help in building my new house. Mother's younger brother, Mr. Sudo Chiiwa could also make design of the house. So I asked him to make a design of the house in accordance with the drawing of Taeko. It was later known that Seiya had bought Japanese cypress from around their parental home in Yamagata Prefecture at a time when timber was still cheap. He asked me "Sir, how about money?", and I replied right away that "Please do not worry" even though no solution was worked out. It was possible to receive a loan from the household fund at 6% annual interest. But my natural habit was against the deduction of my salary every month to pay back the loan for 30 years. Then it was known that Taeko's aunt was single and had a large deposit and by using this deposit money as guarantee with 8% interest which was not a loan. The principle could be paid whenever we have money. Only the outstanding principle was subjected to be calculated for interest. This scheme was acceptable to me. So we requested her aunt to help in the building of our house, ending the worry of money.

As the completion of the new house drew near, there happened oil shock crisis, pushing commodity prices up 3 times. Seiya the contractor said "It was not possible to build the house then at 7 million yen, at least 20 million yen must be. When I started to build the new house, several people said "Why hurry? You both should go and look at the constructed house. You just buy the one you like, isn't it better" But after oil shock, price skyrocketed.

Then they said “Murai, how did you know that there would be oil shock?” How could I know? I only said that having seen the severity of pollution smog over Haneda, my instinct reminded me of dangerous signal. In October 1972 our new house at Mejirodai, Hachioji City was completed. I was 33 years old at that time. The land was bought by Taeko’s parents at the time Keio Railway Co. developed the area around Mejirodai. Total land area was 70 tsubo. We were indebted to her parents. The construction cost was 7 million yen from borrowed money. Since my salary also increased with the high increase of the price of the goods, I managed to pay back the money within 10 years.

The house was completed but no fence nor gate, even now there remains the same. In the garden there is a sakura tree now taller than the roof, with circumference of 30 centimeter. It was planted from seedling 50 years ago. Trees that the tree shop discarded, such as, plum, biwa, yuzu, kumquat, grape, persimmon were planted every year. We enjoyed eating these fruits. The house was built more than 50 years ago but no problem at all.

After moving in the new house, while the elder son and the younger son studied one year apart in the primary school, Taeko must have suffered fatigue from bringing up the children. The body was worn out with body weight dropped from 50 kilogram to under 40 and quite scrawny. She could not live as normal and even she received several medical treatment, nothing improved.

At that time, I made a big decision seeing that doctors and medicine could not cure her, so I decided that the only remedy was to change the place of living.

In July 1976 ISP Congress was to be held in Helsinki, capital of Finland. I also would present a paper at the congress. So I thought that if the whole family travelled together, Taeko would recover from the illness. At that time, travelling abroad was expensive and was quite special. Taeko was not sure about travelling by airplane so we decided to go to Helsinki by Tran Siberia Railway. During the two week congress my wife and the children could rest or go around. After the congress we would travel by Eurail pass and board the plane in Milan for the return trip, totaling 40 days of travel. At that time, my salary was not much and we had no savings. I took the available money of 1.6 million yen for this trip. The children were in primary school grade 1 and grade 2. The teachers at Hachioji gave permission for leave though it was still 10 days before the start of summer vacation.

We got on the ship in Yokohama for Nakhodka and from there boarded the Trans Siberia train until we reached Helsinki. The children were very excited. Our family, a group of four could occupy the whole compartment so we did not feel bored. Every thing was perfect except for the food. On the way we stayed one night each in Moscow and Leningrad (now St. Petersburg) for city tour. Taeko's health which was worried to deteriorate was all right and even seemed to improve.

After passing through health quarantine of Finland we entered Finland from Russia. On arriving at Helsinki every body felt much impressed with the beauty and excellence of this country. At check in of quite cheap Helsinki University residence we did not feel exhausted and looked forward to joyful moment. Taeko and the children could rest for almost two weeks. At the dining room of the university It surprised me that children under 12 years old could have breakfast for free. This showed that Finland was an advanced social welfare state. Children ate more than Taeko, so she felt a bit sorry.

For myself, besides making presentation of my paper and attending sessions of interest, I stayed with my family, enjoying sauna and went shopping at some department stores. The children were excited to the extreme.

After the congress we travelled by Eurail. On the way when we saw interesting cities through the window, we would descend from the train and looked for cheap hotels around the railway station. After check-in at the hotel we would go city touring. In Germany, we took Rhine River tour. In Switzerland we went to Zermatt and looked up to see Mount Matterhorn. We took a train to Gornergrat at altitude of 3500 meter from sea level. Then we walked down to Zermatt. After that we travelled to Milan by train passing through several cities. We boarded the plane in Milan for return trip to Japan, ending 40 day summer vacation.

Taeko's health hitherto worried became stronger. The trip from big decision this time was successful. Even now both my sons still have good memories of that time.

Let me introduce my two sons. The elder son Kenji after graduating from Keio University worked at Mitsubishi Bank. Since he was a rugby player of the first league of the university, he was readily accepted to work at Mitsubishi Bank which was highly aspired by most people. He also joined the rugby club of the Bank. However, he only stayed for three years and resigned from the bank. The reason was like this. At that time he was responsible for the financing sector. Even though it was considered that the property was not worth financing but his boss told him to go ahead. He complied not full heartedly. Then the loaner went bankrupt. But the boss asked Kenji to be responsible for this. At that time we husband and wife lived in Thailand. Kenji took trouble to travel to Thailand to ask us to sign the consenting document for him to resign. After resigning from the company Kenji had some difficult time. However, since he was interested in environment problem, he set up a small plastic recycle company and after struggling for ten years, at present with his wife the company is doing well with good profit. Above all we were happy that he got married to Miss Yokota Mihoko and had two offsprings, our grandsons, Kakeru and Noboru.

Now the youngest son Tetsuya had a rather unfortunate destiny. Too much indulged in American Football at Kobe University resulted in his becoming a repeater. At this time there occurred Hanshin Awaji Great Earthquake on January 17,1995. Tetsuya used 10 yen coin to phone from the public phone booth telling Taeko that "I am still alive, watch T.V." and the line was cut off. We quickly turned on the television to find out that there was the great earthquake. I was responsible for the journal of JSP at that time and felt very confused. Tetsuya walked from Kobe to Osaka to take Shinkansen train back to our house. He bought a few necessary things and returned to Kobe to help the senior people as student volunteer. So he got repeated for another year, a total of six years before he graduated from Kobe University.

Upon returning to Tokyo, he said that he would like to continue his study. So he got enrolled in master degree course of Tokyo Metropolitan University and furthered his study in doctoral course under the guidance of Professor M who was well known in oral history. His doctoral dissertation was accepted and he received doctoral degree of law. However, he did not reach the position of Associate Professor and spent his time as non-permanent lecturer in political history subject at several universities. I supported him sometimes as father and son. He got married to Miss Kawana Mizuho and had one daughter, i.e., my granddaughter named Juli. Since they lived nearby, we were taken care of pretty well. He was an affectionate and dutiful son. Even though he was not successful

in professional life I feel content. Seeing his struggling condition as non-permanent lecturer in political history at several universities, I want to support him as much as I can.

My elder daughter-in-law Mihoko and younger daughter-in-law Mizuho are very close to Taeko, their mother-in-law. Each year in the garden of my house we organize rice cake pounding party and they came to join joyfully with our grand sons and grand daughter, Kakeru, Noboru and Juli. The fact that every body in the family gets close to each other in harmony is a great fortune.

Mihoko, wife of elder son Kenji after taking care of the children, helped errands of the office of Far East Network (FEN) of Plastic Recycle Co. of her husband. Probably due to the fact that she used to work as secretary of the executives of Nissho Iwai Trading Firm, she handled the work expeditiously. She was an indispensable person of the company, with open heart and enjoying tennis.

The eldest grandson, Kakeru, was sick with asthma when he was a baby. I took my pension of 40 million yen to buy a resort home at Karuizawa. It was lucky that Mihoko also liked the place and during summer vacation I took grand sons and grand daughter to get pure air at Karuizawa which resulted in Kakeru recovered from asthma.

We had wished to have our two sons live in the nature as much as possible. But if we stayed in the hotel those naughty boys would run around playfully in the lobby since morning

causing some nuisance. Even if we rent a resort house, it is not sure that we could stay peacefully, not to mention the high cost of renting. At any rate a resort house was a must. If it was in Karuizawa, I thought that both daughter-in-law would like it. I then asked the estate realtor company to take us around to see the houses. Finally we found one that we liked most and bought it. The house was painted in pink and situated on a small hill built one year earlier. The owner whose company went bankrupt so he had to sell the house. The house inside was also properly appointed. Not only daughters-in-law but those grandsons and grand daughter also came to stay happily. Having bought a resort house in Karuizawa, a popular destination of the ladies is a correct answer.

Kakeru while studying at Aoyama Gakuin University used to play soccer. But after graduation he wanted to be a Bonsai master, so he now stayed at his master's house as apprentice. He is a handsome man swift in getting things done; a grown-up person who dares to express his own thoughts. I hope that in the future he will become a successful Bonsai artist.

As for younger grandson Noboru who loved soccer and played as back position at Jissen Gakuen High School in Hachioji, is a good athlete. After graduating from Hosei University, He is set to work at a trading firm. At university he was much engaged in soccer and hardly studied at all. We hope that he would finish his study well. It is our family custom that both our eldest son Kenji

and his wife never told their son “to study hard”. We think that he can be a good person in the society.

Now our grand daughter Juli the only daughter of our younger son Tetsuya who was born on July 29 2008 at the time I descended from Mount Tsurigadake after reaching the summit, was named Juli since she was born in July. At the moment she is in secondary school and understands other people’s feeling well. It is rumored that she has such character capable of befriending problematic children in the classroom. While at secondary school, she liked ramen so much and said that in the future she would open a ramen shop. So she started to experiment on different types of soup. She liked the soup that Taeko used a big piece of pork meat boiled with crispy ramen. Quite a strange girl and it is interesting to see how she grows up as an adult.

In Primary school she liked to play soccer with the boys. But when she reached Secondary school, physical body of boys and girls differs as well as body strength. But she also participated in track and field event. She learned piano but that was her mother’s suggestion so she was not interested. Before she was quite obedient with her parents, but since enrolled in Secondary school, sometimes she quarreled with her mother. This may be a period that one has to pass through for further growth. Some quarrelling may be all right, I am not worried.

❸ Reminiscence of my childhood days

The unforgettable event that I can remember happened was while I was 3 or 4 years old, just before World War II. We were living in a western style house in Harajuku near the Meiji Shrine, so it was quite a thrill for me to stand at salute as officers on horseback passed by. I also remember there was a piano in the living room of our house.

What remains vividly in my memory was when I contracted dysentery, which at that time was considered a serious disease, with only 50% survival rate. When I was taken to the doctor for treatment, a hypodermic syringe usually looks very large in the eyes of children, but I did not cry and instead shouted to the doctor "Why wait, inject quickly". I heard my mother say that the doctor was being scolded several times by a child. My mother was also ill with dysentery, so we both were admitted to hospital. Even though I survived the dysentery my stomach has always been the weakest point of my body.

Soon the war started, and Tokyo was bombed. When the sirens sounded everybody covered their heads with a cloth and ran to hide in the underground bunker inside the house. My role was to light the candles. If the house suffered a direct hit it was totally destroyed. Other houses were spared. As food was rationed, less was available and I still remember bringing a pail from home with my mother waiting for rice porridge from the delivery

truck. Seeing the recent difficult situation in Ukraine on television reminds me of the hardships at that time. Eventually Tokyo was also a dangerous place to live so our family evacuated to Tomobe City in Ibaraki Prefecture.

We stayed in a house in the fields near the Air Force airstrip. There was no electricity, so daily life began at sunrise and ended at sundown. The rationed food was sweet potato called Norin No.1 with no taste at one sack per month. My elder brother and I went to catch fish in the stream to provide a side dish. A daily chore was carrying back home a big load of herbs. We had no underwear in winter and we wore only one sweater. My mother had to take a fully loaded train to get illegal goods by bartering Kimono clothes for food. Our stomachs were always crying out for food. We reared a rabbit so we could have our own food, but then our parents told my elder brother and me to kill the rabbit. This was a horrible experience because we used to passionately feed it with grass everyday. We did not know what to do, so we wound a rope around its neck, but the rabbit just screamed and didn't die. We had to ask an adult from the village who twisted his hand around the rabbit's neck and killed it. We looked at the pink flesh of the rabbit, but even though we were hungry we did not feel like eating it.

Every morning, air force soldiers would march past our house to the airstrip. I enjoyed saluting them while they passed by.

However, once two or three soldiers suddenly sneaked into our house and asked for something to eat, but my mother did not know what to do. As soon as she handed them raw sweet potato, they ate it right there. Probably they escaped from their commander into our house. We children thought that starving the troops was no way to win the war.

American warplanes flew by and strafed the area with machine guns. Sometimes there were scars in the garden. Collecting the machine gun shells was a favorite game of the kids. They would be able to show off if they managed to link the shells together to shoulder height, but sometimes there were non-exploded bullets that exploded when touched and some kids lost their fingers. Parents had to sternly prohibit playing with such objects, but the kids secretly played with them anyway.

We had fun running to gather the leaflets thrown from the air by American soldiers. After bringing them to our parents to read we were told what was written on them, such as “Give up the useless war.” Our happiest event was when we went to the Air Force airstrip and sat in the officer’s jeep. Sometimes we also received rubber to be used in making catapults. Since the rubber was used in making parachutes, it was considered to bring good luck.

Hearing that this evacuation place was also dangerous, we moved to the temple where our uncle used to be the abbot in

Yachi village, Yamagata Prefecture, with the status of present-day immigrants, and we experienced defeat in the war while we were there. I still remember the scene of adults gathering to listen to the speech of the Emperor as I looked from the garden. Our uncle named Henmi Baiei, was one of the translators of Sanskrit Buddhist Sutra which Kawaguchi Ekai brought back from Tibet. Later he became a Professor in Buddhist Philosophy at Tama Arts University, whereas our aunt called Henmi, was the eldest sister of my mother, looked after all the Sudo family.

In our house, we had a servant named Kiochan living with us, who came from a farmer's family who rent my mother's rice field. In our aunt Henmi's house in the temple, there was also a servant. In my child's mind, seeing Kiochan being treated unequally, led me to be sympathic towards her. Noriko-chan, the daughter of our aunt's elder brother also came to live with us. She was the same age as Hisako, my elder sister.

❹ Primary and Secondary School Period

Not long after the end of World War II, I was enrolled in Yachimura Primary School in Yamagata Prefecture. I cannot remember much about this time of my life. It was the period of shortages; handwriting practice was on newspaper instead of plain paper. Japanese language text was the one approved by the authorities. I still remember that I did not understand what they meant when they said "guardian dogs". The name Murai was written in the old version of hiragana which was no longer used.

The distance from the temple to school was one ri (4 kilometers). In winter we put on the geta (wooden clogs) and in other seasons we used geta made of grass for the bottom and woven with rope. In Yamagata Prefecture there was an abundance of snow in winter time. Going to school with barefoot in the geta, it was possible to enjoy the sound made by kicking the snow while walking, but on the way home the snow had started to melt and stick to the geta. So, I had to stop frequently to remove the snow from the geta and thus I felt very cold. After reaching the temple gate I cried but tried not to let other people see me. Since I was taught that men don't cry, I could not cry in front of other people. My resilience was probably developed at that time. Our schoolteacher was an ex-military man so we were quite scared of him. The punishment for forgetting something was to be slapped on both left and right cheeks. So if I forgot something, I opted to

run the return trip of I ri to fetch it. After moving back to Tokyo, at school I always clocked within the first three places in marathon races. This might be because I developed endurance by virtue of running an 8 kilometers return trip when I had forgotten something, when I lived in Yamagata Prefecture.

I cannot remember how we moved, but we evacuated to a warehouse Emata in Kanai village of Yamagata, which had no windows and hence was always dark inside. Around this area, there was a spring. We enjoyed very much when we put rice in a bamboo basket and washed it with cucumber pickles and then cooked them together. It was a difficult time because nothing was available. However, there were two happy moments that I can remember. One was during ripening of cherries, I climbed the cherry tree with my friends to pick the cherries and ate them joyfully. The second instant was the taro imo at the cooking festival of Yamagata in which 4 or 5 families gathered as a team and put the pots and food ingredients on the cart racing towards the river site to make a menu mostly consisting of taro imo. The meal after that was quite eventful. My mother used to tell us that a family of the team which evacuated here had very few ingredients to join in the team and felt quite embarrassed. It was also rumored that the hungry children would often steal vegetables from the fields. There was no free school lunch at primary school. Bento had to be taken by the students, but there was almost no rice inside; most contained potato or sweet potato. I felt sorry to see the teacher's

bento consisting only of chunks of potato.

Since our family could not stay in the warehouse forever, we then moved to live in the employee residence of the company where my father was working in Sendai city, Miyagi Prefecture. I was enrolled in primary school grades 3 and 4 at Kamisugi Yamadori Primary School. The American military seized the big houses for their own use and one of them had a Shepherd dog which often harassed children, so it was quite scary. The house at that time had fences so we climbed on the fence. Even children like us thought that losing the war was a bad thing. During that time, baseball was a favorite sport among children. Those wealthy people had money to buy gloves but, in our family, my mother made the gloves for us as well as the ball. The bat was made from shaving the wood to size. The red cap of Mr. Kawakami of the Giants team and the blue cap of Mr. Aota were coveted by the youths. The exhibition of the baseball team of American soldiers in the field of Prefectural Office left a great impression. We enjoyed the acrobatic show where the pitcher used his big hand to grab two balls and throw at two catchers at the same time each receiving one ball. When the ball was lofted very high by the batter the fielder went to catch the ball by sitting in a jeep. It was truly enjoyable.

At school in Sendai, in the beginning I was treated like a hillbilly speaking with a northeast accent but through a close friend named Sakurai Seiichi I was finally admitted to the group. There were many happy memories playing baseball.

Since my father, who worked at Dowa Fire & Marine Insurance Co.Ltd. was transferred to Tokyo, we then moved to stay at a house in Shimouma District of Setagaya close to Gakugei University. I was transferred to Komatsunagi Primary School. My teacher in charge Takashima Sensei, came to me and kindly taught me in a special way, because the schooling was more advanced in Tokyo. I could not follow the class so Sensei helped me out, while I also studied as hard as I could. At graduation ceremony I was selected as the best student and received a prize of an English dictionary. I am much indebted to Takashima Sensei for his kind guidance.

Next to Komatsunagi school was a housing quarter for those repatriated from Manchuria. There were many kids who liked to quarrel. When I prevailed in the quarrel, I would write this in the diary but did not understand the meaning. Our teacher wrote that “quarrelling is the thing children do”. After asking my mother about this, she taught me that it meant that quarrelling people could not be good adults. I became a close friend of Master Niiro who lived in a rich house nearby. His father used to work in Germany, and there was an exquisite train and rail model moved by electricity in his house. I looked at it in great wonder. His mother was beautiful and always accompanied Niiro for field trips or seaside vacation. There was no contact after that, and no news about him since.

Before graduating from Primary School, my mother told me to take the entrance examination of Komaba Secondary school of the Faculty of Agriculture of Kyoiku (education) University. This was a big turning point in my life. I did not know anything about this school, nor did my friends in the primary school. I went to apply for the entrance examination as I was told by my mother but did not make any special preparation. Since I thought in the beginning that I would fail, I did not ask my mother to go with me. I took the train to the venue alone. Thinking that I would fail, I went to see the results alone. Looking through the slit between people gathering there, I was shocked that my name was included in the list of those who passed. However, the number of those who passed was twice the quota to be admitted. The students who would be admitted must be decided by drawing lots. A big turning wheel like those used in temple festivals was used. After turning the wheel once, a blue or a yellow ball would be released. Blue meant pass and yellow meant fail.

I was surprised when the wheel started to turn. As soon as the yellow balls came out, mothers clapped their hands delighted that there was still a chance for their children. I was disgusted with such attitudes and thought that “My ball must be blue for sure”. I found out that there was only one kid who came alone without his mother and that was me. Kids who passed celebrating with their mothers, whereas kids who did not pass cried and hugged their mothers when returning home. When my

queue came up which was the last one, I took a deep breath and shouted “Eh” while turning the wheel at full force. The blue ball slipped out, meaning pass which exceeded my expectation. At that time, I did not know about telephones. When I reached home mother might have guessed that I did not pass so she remained silent. When I said in a soft voice that “i do not know how I pass”, mother was so happy. I did not know before that this secondary school was the coveted school of all mothers. At present this secondary school has merged with Komaba High school of Kyoiku University and is one of the top-class schools for entrance into Todai. In short, it was called “Kyokoma”

Entering secondary school, my student bag was changed from landsel bag to duffel bag. There was compulsory student uniform. Since my elder brother was three years older than me, he was in high school when I was in secondary school. Therefore, I inherited everything from him, whether it was student uniform or student bag and other items. My friends all had a new uniform and new bag, whereas for me all items were old except for my new school badge.

At that time, my house was in Yaraicho in Shinjuku. I had to walk past Kagurazaka and from there I took a train from Iidabashi station. I passed through Shinjuku station and changed at Shibuya Station for Inogashira Line to Todaikomabamae station. It was a boy’s school with two classrooms. After class we played

soft tennis, samurai fencing and sumo wrestling until we were exhausted. On the way home, walking uphill at Kagurazaka from Iidabashi station was a hard job, so after dinner, I just rolled over with fatigue.

The most demanding sport was soft tennis, as I was the front player of the doubles team. The goal was to enter the finals of the Secondary School tournament of Tokyo. First it was necessary to win in Setagaya Ward. In second grade of Secondary school, I participated in the Tokyo level tournament but was defeated in the second game.

A happy moment during secondary school in my memory was rice planting. Since our school was attached to Faculty of Agriculture of Kyoiku University, there was a small rice field and every year in spring there was rice planting training. I felt marvelous walking barefoot in the rice field. Another memory was when we went to stay together in the forest. It was a dirty place by today's standard, but the company of boys making loud noises was quite enjoyable.

I barely did any study, and mainly played tennis. Maybe because my body growth rate was so slow. I was smaller than average, but in secondary school my body height was 170 centimeters, and I was the tallest in the class. Entering third year of secondary school I was still not interested in the entrance examination for high school. My 3-year older brother had already

studied at Toyama High School in Tokyo. Since our house in Yaraicho was a short distance from Toyama High School, it was natural that I should study there.

At that time, the top school for entrance examinations was Hibiya high school, with Toyama High school number 2 and Shinjuku High School number 3. My mother could have also agreed with the idea of my studying at Toyama High school, but I did not make any special preparation for the entrance examination. I was at a loss in deciding which school I wanted to attend. Concerning my performance, I achieved top level in mathematics but I was not good in Japanese language. I was confident that I could achieve 90 out of 100 in mathematics. For Japanese language, at worst a mark of 50 should be possible, which would be supplemented by my high mark in mathematics. This was my strategy when I sat for the entrance examination of Todai and the result did enable me to be enrolled at Toyama High School.

❺ High School Period

Toyama High school was not far from our house in Yaraicho, Shinjuku Ward, requiring just walking for 25 minutes past Waseda University to reach the school. Nearby was a secondary and high school for girls of Gakushuin University, where children from high class families were enrolled. Before the war Toyama High school was called Yonchu (The Fourth Secondary School) and the alma mater of Tojo Hideki. Toyama High school had some annoying regulations. Every morning in front of the school our handkerchiefs and uniform caps had to be checked one by one. This was my most disliked custom. Morning line up to listen to the speech of the principal required students to be neat, which a ruffian boy like me could not bear. For the once-a-week morning line up, I would come late or sneak into the library, so I hardly attended this event. Friends who were not strict like me are Mr.Nakamoto Osamu and Mr.Yamamoto Koichi. Now we are still in contact with each other as close friends. Entering third year, I often skipped the morning class because of my dislike of handkerchief and cap checking and the morning line up.

I joined the judo club at Toyama High school. There was no tatami training floor, so we had to rent the training facility of Totsuka Police station. Regular judo teachers from the police station also came to teach us, but sometimes they used special tricks to strangle our neck until we almost suffocated. If the teacher was

a young officer, we would be handled quite severely. Since I was tall with big shoulders, my trick was to cross my legs for ippon victory, especially against shorter opponents. This technique was mostly successful, but the shorter guys would try to grab the opponent, throw him down to put him on his back. So, I needed to find out some technique to make the opponent suffer. When he was unprepared, I used my crossed leg to beat him. In the second year of high school, at the suggestion of my teacher I took a test to move up a level. The test consisted of 4 people in a team, and the one who performed best would be promoted to shodan (first level). I managed to win over the first two by using cross leg for ippon victory, but the last person had equal ability, so it ended in a draw. The result was two wins and one draw, so I received a black belt and promoted to shodan.

Toyama High school was the school in which everybody wished to enroll to pass the entrance examination of Todai. On entering third year, most of my friends stopped club activities and began to take special tuition for the entrance examination. But I continued to work out at the judo club until the third-year summer vacation. Since my elder brother was studying at Todai so I should follow the family tradition. As mentioned before, mathematics was the subject that would allow me to gain points and I had good memory, so I selected Japanese history and World History subjects. The compulsory subject that I was not good at was Japanese language for which I should achieve 60 points or at

least 50 points. Other subjects should enable me to achieve 180 points for the entrance exam. As for the science sector, total points for mathematics alone were 120, so I worked out the strategy that if I could achieve 100 points, I would pass the entrance exam.

I set my goal to Science 1 of Todai and started to study seriously for the entrance exam from the fall of third year. At any rate, I always concentrate more easily on mathematics than other subjects. Even though I was not sure of myself, I went to take the entrance exam anyway. However, it was deplorable that I made some mistakes in my favorite subject, i.e. mathematics which I felt would result in my not passing the exam. The result was indeed that I did not pass and since I did not apply for other universities, I became a ronin for one year which was quite acceptable. If it were two years, our family financial resources could probably not afford it, and I would hate myself so much. Thus, I began my ronin life.

In our family, my elder brother set his goal for Todai and my elder sister set her goal for Geidai and to do that she had to pay for piano lessons, so there was not much money available. Luckily my elder sister could pass the entrance exam of Geidai just first time, but the tuition fees seemed to be quite high. It did not look like there was money for me to get into the tutor school for the entrance exam. Fortunately, the teachers at Toyama High School used empty rooms when no classes were held in the afternoons

to give lessons to the ronin gathered there at a low price. Hearing this, I joined the group. In the first period in the afternoon, we had to move around according to the subject of instruction. We arrived at the school around midday with ronin playing softball for a change of atmosphere. Having ronin friends, my depression about not passing the entrance exam gradually dissipated.

I became close to Mr. Maenosono from Kagoshima who lived in a rented room, and we went to try out at trial entrance exams several times to see how we performed. The authorities not only announced the points for each subject but also total points. Moreover, the required grade for passing each university was also posted. Finally, I achieved the level which should be adequate to pass Science I at Todai as desired. My problem was in mathematics for which I needed to be properly prepared so as not to make even small mistakes.

Too much studying without exercising might be bad for the body and the brain might malfunction. So, I practiced skipping and ball dribbling. I could double skip continuously for 100 times. For ball dribbling I used the ball my mother made for my younger sisters. I practiced until I could handle it well. Moreover, I bought a harmonica to practice several songs. When I was a kid, my mother used to let me learn harmonica with a teacher. Since then, I have enjoyed playing the harmonica.

In summer, I went bike riding with my friend, just the two of us. We brought mosquito nets with us and reached Hayama beach to enjoy sea bathing. At that time, only big cities had concrete roads and the roads linking the cities were gravel with a lot of potholes, so it was quite difficult to navigate. We did not have any money to stay at a hotel, so we were obliged to put up the mosquito net on the sand, put the bicycles inside for sleeping. We did not have money to eat at restaurants, so we just depended on canned food. As a matter of fact, a friend's house was near the beach and we imagined that he would probably come back home. It turned out to be true, so we were treated to one meal at his house. Ronin life might lack some comforts, but still it gave me some good memories.

Just before the application deadline, although I stuck to my goal of Science I at Todai, my parents and other people said that ronin for two years was not permitted, so I should apply to other universities as well. But I had made up my mind for Science I at Todai only, and I did not think that I would fail. I was steadfast in making this big decision. Life after that remained the same. I did not think whether this was right or wrong, success or failure; just moving towards the goal of success. This was the mentality of unmovable spirit, that is, no turning back was my motto for all my life.

Consequently, I applied for entrance exam of Science I of Todai. I could do well in mathematics and should get 100 points, Japanese language 60% ; English, history, physics and chemistry 70 or 80%. On the following day newspapers printed the questions and answers of the exam but I did not look at it because I wanted to relax.

When I went to see the exam results at Komaba campus of Todai, my number was in the pass list. In front of the university gate there were posters soliciting new students to join various clubs. I was happy to be able to say that "well, I am now a university student" This was a relief for me and at the same time could make my mother happy.

In April Showa 34 (1959) while I was 19 years old, I was enrolled as a first year student of Science I of Todai. The happiest event was the release of my parents from the financial burden which was wasted during my ronin period. There were some financial expenditure as a student but this had already been anticipated. My brother and sisters were also happy with my passing the entrance exam. But after entering the university I had no idea about my future goal.

❻ University Period (Indulgence in boat racing)

I was delighted to be admitted to Todai, even though I was assigned to a certain classroom where I did not know anybody. The lecture rooms were large and quite different from classrooms in primary, secondary or high school, so I was lonely sitting in the lecture room by myself. I could not understand the lectures of the professors at all. In other words, I was at a loss. Since my goal was to get into Todai only, the future was foreseen.

My elder brother who graduated from the Faculty of Law and just started working persuaded me to join the orchestra club, since he used to be a member of an orchestra club at school. He said, "Go and play contrabass" and brought a large contrabass from the club to our house and showed me how to play with great enthusiasm, but I was not interested at all. In fact, I was more inclined towards sports. To free myself from the demands of my elder brother was an uneasy situation for me. At that time, Mr. Senpaku who passed the entrance exam of Todai straight from high school and was in second year at that time, was selected as a junior rowing athlete. He sent me a postcard persuading me to join the rowing club of Todai. He was my classmate at Komaba Secondary School of Kyoiku University. Even though he did not have a strong nerve for sports, he could be selected as a representative of second year students and junior crew. Hearing this I thought that I could perform well in the rowing club of Todai.

I hurriedly joined the initiation party, but I was anxious because there were almost one hundred new students who wished to join the club sitting in the large room, which surprised me. Those coming from other prefectures all had strong physiques, whereas I was quite lean, caused by my preparations for the entrance exam. I felt quite scared. Sitting in front of me was Mr. Mizuki, who was a junior crew and feeling pity for me sitting alone, he talked nicely to me. Later Mr. Mizuki was the athlete participating in Rome Olympics together with me, but at that time. I did not imagine that there would be such a happening in the future.

Someone gave me some beer to drink but this was the first time for me, so I just took a sip. I was shocked to see some freshmen received a beer from their seniors and they drank it all in one gulp. Soon the Eight-man crew from third- and fourth-year students from the Fusoryo dormitory Todai rowing club at Toda city in Saitama Prefecture showed up. They had nice physiques with large muscles, so from my perspective they looked like giants. Together with the cox, they turned to each new applicant to convince them, supported by their experiences, that rowing was a good sport. At the end it was customary that everybody sang the song “Haru wa Haru wa” (spring is coming) which was the club song. Everybody clapped their hands while singing with a loud voice in unison. I made up my mind to apply on the spot. This was partly due to my thoughts of escaping from the orchestra

club recommended by my elder brother.

I joined the training immediately, most of which was concentrated on onshore training to strengthen my stomach muscles which was necessary for rowing. After almost one-month of onshore training we were led to boat training at the Todai boatyard situated near the Sumida River. This would be the first time everyone would experience boat training. First year seniors who were second year students divided the rookies into Science and Arts teams, to be seated in different boats, and taught how to row. I became a captive of the sport called rowing which used completely new equipment. While attending lecture classes in the big university room, first year senior Mr. Kitamura would come and say to me "it is no use listening to the lecture, it is better come to Sumida River to train." It seemed I was being kidnapped, but I thought the same way, so I took the train at Shibuya to Asakusa Station, then changed to Ginza line for Sumidagawa Station and went to the boatyard and was immersed in rowing.

Sumida River at that time was very dirty, almost black in colour and it was rumoured that septic tank vacuum boats unloaded waste into the river. There was even some news that there were some victims infected with 'flunkel' (in German), appearing on their buttocks. But I was happy to be rowing so there were no bad feelings.

The purpose of the training was to prepare for races between the Science and Arts teams to be held before the summer vacation. I was tall but skinny, so I was selected to be No.2 of the eight-crew (meaning first league) of the Science team (called Ritan). The opposition was the Cham crew (Buntan) of the Arts team. I intended to train as hard as possible under the guidance of our senior, second year student. But I thought that there were some defects. The opposing Cham crew conducted harder training. Since I was a rookie, it was not appropriate for me to complain about the training by our senior second year student. Finally, the racing took place watched by our parents and seniors. After the races of the Third and Second leagues were over, the race of Cham (First league) got underway. At the beginning both teams were even but gradually we were left behind and lost the race. My friends did not feel sorry about the defeat but were happier that the race had finished, but I did not like being defeated, so I felt sorry and dejected.

After the race there was a party at the boat yard, where everybody drank beer at noisy celebrations. But I did not enjoy celebrating so I went out to cry silently alone beside the boat on the shore. The question was “why were we defeated?”. The answer was quite clear: the opposition had better training. Although I knew this, I remained silent, but that was unforgivable. I should have said that we should train as hard as necessary for victory, even risking some reproach from our friends or seniors. Since this was a team

sport, hard training was a must for every member.

Rowing training of rookies was over at this point. Selected first and second year students would join in the junior level racing of the university. I was the first-year student to be selected. Rowers at other universities had good physiques and so there was no way we could win. But I thought it was a good experience, so I participated. Since I did not want to lose, I trained vigorously. The result was a defeat at a group tournament. I did not feel hurt as I did after the race between the Science and Arts teams, knowing I would reap benefits of the training after the race. The training at the rowing club took a pause, except for the race between second year and third year students (lineups), with the objective of participating in the selection process for Japan's rowing team for the 1960 Rome Olympics the following year. In such cases the athletes would move to camp for long-term training. It was already decided to send an eight-man crew, whereas the four-man crew was deemed as the second league. Some private sector crews only participated in a four-man crew team.

I did not foresee this but unexpectedly Mr. Akamine, the captain ordered me to go to the Todai boat yard as one of the athletes to be trained for the tournament. Two first year students with good physiques who had joined in the four-man crew had already entered the camp. Four more rowers were needed to join them to become the eight-man crew for the tournament, so that the eight-man crew training could start.

This eight-man training was over by the end of the year. After the New Year there should be separate training for the eight-man and four-man crews in preparation for the Olympics. But Mr. Kawazu, a first-year student who was one of the four-man crew contracted tuberculosis and could no longer row. The past training season had been rainy, and training had been conducted in the rain, causing him to contract tuberculosis. An urgent call for the replacement was announced and I was selected, even though the physiques of several other first-year students were better than mine. Maybe the coach Mr. Arakawa and Mr. Sugita had assessed my training attitude as a positive attribute. As soon as I received the order, I immediately carried my futon mattress onto the bus heading for the boat yard at Toda. I was both happy and worried. I was happy because it was an opportunity to leave my house, but I was worried because I was anxious whether I would be able to follow the strict training and compete against strong opponents. While still thinking about the future, the bus reached the camp and the captain Mr. Akamine wearing only a white loin cloth, though it was at the end of November and beginning of winter, came out and said "Murai, it is good you have come. Go and sleep in the six-mat room with the four-man crew."

I spent my life with four-man crew and one cox totaling 5 people, where we lived and slept in the same room. There were 6 tatamis in the room, one for each person, the remaining was set aside for members' belongings. The four-man crew were Mr. Okubo,

second year (Captain), Mr. Mizuki and Mr. Fukuda in first-year and me, with Mr. Saito as cox, a first-year student. Mr. Fukuda, who was from Tottori Prefecture, while in High School was a basketball player having a good physique. At the rowing club he was both a good competitor and good team member. Whereas coach Sugita, who worked at Express Way Authority, was a famous coach who later brought several victories to the Todai rowing club.

Let me describe the camping life at that time. Sixty years ago, there was no bathroom in the living quarters. After training under the leadership of Captain Akamine, we sang dormitory songs while walking to sento (public bath shop). Food was prepared by an employee for miscellaneous jobs, called the manager, using a charcoal stove; meals comprised miso soup, called suppe in German, together with rice which was refillable. Breakfast consisted of fresh eggs with natto (fermented soybean) and rice. Lunch and dinner depended on the manager but was mostly tasteless. Sometimes minced meat was purchased from the shop for preparing meals. The washing machine could only do washing, and a hand roll was available to squeeze the water out of the clothes. We were thankful for nylon clothing being available on the market because cotton shirts and trousers worn previously for training would never dry. Once nylon jumpers were available, we were all very happy.

The morning call was at 6.00 am. At that time Todai just introduced the training called Scientific Training comprising interval running, repetition, weight training devised by Ishikawa Sensei of Koishikawa Branch of Todai hospital. Morning training was mostly 200-meter interval running with jogging speed, followed by 400 meters running with speed of 15 seconds in 100 meters, totaling 10 repetitions over 6000 meters to be accomplished in a prescribed time. As for repetition training that had to be practiced sometimes, this was very hard because we had to run 400 or 600 meters for 10 repetitions at full speed. The last one was the most difficult because of lack of oxygen. This training was meant to build a strong heart for our rowing. While athletes at other universities were loitering with toothbrushes in hand, Todai athletes were running at full force. In the evening after dinner, we regularly did weightlifting using barbells everyday. After training at 9 pm the lights were out and we all went to sleep exhausted.

On Sundays, our seniors and coaches would go on a motorboat to watch our training thoroughly. Arai Sensei who was a medical doctor, as mentioned before, never missed once and after the training would always speak kindly to us. The happiest moments were when some seniors brought delicious cakes called “Sashiire” and some fruit for us. The camp training started in November 1959 and lasted until May 1960, which was the time for the tournament for selection of the Japanese team for the Rome Olympics. After Sunday training until the next Monday evening

was the holiday called "Frei" (free in German) and I went to do some tutoring at different houses to earn some pocket money. Therefore, it was only on Mondays that I could attend lectures. However, I also had to rest so I ended up with no attendance at the university. Since taking the exams was mandatory for graduation, I had to show up at the exam following memorizing of what appeared in the notebooks of my diligent friends, which normally I could memorize quickly. Though the points I achieved were not high, they were sufficient for me to pass the exams. During the 4 years of study, I managed to study only for 6 months since I was attached to the rowing club all the time. However, I was able to achieve Todai Doctor's degree and was subsequently appointed as a Todai professor. Man's life can really be intriguing.

Concerning the selection tournament to determine who should represent Japan in the Rome Olympic Games regatta in 1960, our victory was a special event, so I will leave it to the next chapter. In this chapter, I will describe only my rowing activities for 4 years in Todai, until returning from the Rome Olympics and including my graduation.

The Tohoku University eight-man crew represented Japan at the Rome Olympics, since they beat the Todai team in this regatta. Todai had failed to win the championship for 7 years. So, after returning from the Olympics the most important goal for Todai was to win over Tohoku University to become No.1 in Japan in this

category. Coach Sugita then selected a new eight-man crew and I was selected as No.6 with the duty called engine. All the four-man crew who were in the four-man crew in the Rome Olympics were selected to be included in the new eight-man crew. The captain was Mr. Miura, one year senior whereas the cox was Mr. Saito who was well known for his spurt call during the tournament and was great at stimulating the crew.

Coach Sugita had prepared many hard training menus such as spurt 100 times for a total of 100 times, which was really hard and focused on only one opponent, Tohoku University. Our mission was how to beat the crew of Tohoku University who had built up their own rowing style devised by Horiuchi coach who had participated in the Olympics.

As everybody expected, the national tournament in August 1960 was the final round of championships between Todai and Tohoku University. Since the performance of the rowers from Tohoku University would be stronger in the second half of the race, coach Sugita thought that the race would be determined in this half. Cox Saito also planned his strategy with the same idea, but we needed to maintain a lead. I had made up my mind that win or lose would happen in the last 500 meters.

Our team was a bit slow at the start of the race, but we caught up to Tohoku University crew at the 1000-meter mark. At the 1500-meter mark we were ahead and finally the race was

decided by the team with the better endurance in the spurts, and we won by 2/3 boat lengths. This was Todai University's best performance in 8 years.

At the closing ceremony Mr. Kishi Michizo our Todai senior alumni, who used to be chairman of Rapid Transit Authority and President of Japan Regatta Association, presented the winning pennant and certificate to Mr. Miura, our captain. Mr. Saito, who had been cox all the way, was by tradition thrown into the water at the Toda course. At the celebration party held at Toda Secondary School, not only the athletes, but many senior alumni came to congratulate us including Mr. Kishi Michizo, Mr. Kaidai Yodo, Mr. Arai Michio, Mr. Morita Minoru, etc.

The above is an account of my life as a rower until the end of my third year. After the national tournament the most senior student Mr. Fukuda, captain and assistant, asked me to assist him in arranging new crews for the coming year. The Japanese Regatta Association had decided to send a no-rudder four-man crew, a no-rudder pair and a single scull to participate in the World Championships to be held in Lucerne Switzerland the following year. Therefore, the arrangements for the crews were set up for these categories. Coach Sugita decided that the no-rudder four-man crew would be the leading crew by selecting two fourth year students and two third year students. I was not included. As for no-rudder pair, Mr. Fukuda who was captain and assistant,

selected me to join him. I was not happy initially that I was not selected in the no-rudder four-man crew, but I changed my mind and thought that I must represent Japan with my buddy Fukuda in this World Championships. Coach Sugita from Rapid Transit Authority was responsible for the no-rudder four-man crew, whereas the no-rudder pair was the responsibility of the coach Kanaya. Coach Sugita's goal was that the pair of Fukuda and Murai pair should be able to win the Japan representative title, so he looked after the four-man crew, hoping to have both the four-man crew and the pair from Todai representing the Japanese team.

The results of the Japanese regatta missed coach Sugita's target. The four-man crew was defeated by Keio University, whereas the pair in which I participated won the race and represented Japan in the World Championships. Three of the crew that lost the race in no-rudder four-man crew, namely, Sawazaki, Horiuchi, Kurasawa from Todai were selected for the newly formed eight-man crew and joined us in the World Championships. The rowing course that was situated in the outskirts of Lucerne in Switzerland was very beautiful, like a dream land. The standard of the Japanese in the small boat categories was still quite low and both my no-rudder pair team and no-rudder four-man crew of Keio team were defeated in the group matches. We knew from the beginning that European athletes were strong, but we joined them to learn more about competitive rowing.

Oversea travel at that time was quite rare but I managed to travel abroad twice during my university period, thanks to competitive rowing. I would like to express my gratitude for the Japanese Regatta Association for the opportunity to travel. Even though I did not receive a gold medal from rowing, I made up my mind that I will achieve a gold medal from some other branch of my activities.

The period of my indulgence in rowing occurred 60 years ago. I would like to consider the case in which one did not study hard at university but immersed himself in rowing. The people that societies hope to watch are not those who are good at studying but human resources that can study and research to solve difficult societal problems. To achieve well at studying means the person can memorize what is written in lecture notes or in textbooks and present the material at an exam, without discussing the material with friends, or not cheating, and could answer the questions within the allotted time. Studying and education/research are totally different. I found out from my experience that education/research are not the straight-line extension of studying. I entered Todai and became a professor of Todai. But studying just to enter Todai may have limited benefits if seen from the point of contributions to the society. I would like to tell parents involved in educating their children that, instead of seeking the target of entry to Todai, they should help their children to have good friends, to play sports, to be healthy and strong.

When they enter society after university, they should become good team leaders. Parents who set the goal towards societal fame or education records or large enterprises should know that these are the wrong goals. My juniors, seniors and contemporaries of the Todai rowing club, who did not attend classes but spent time in athlete's camp have all become active in society. My friends from the rowing club of other universities after graduation, also had good positions and left their marks on society. The fact that they used to participate in rowing enabled them to conclude business negotiations in a positive way. Kenji, our eldest son was also very immersed in rugby football in Keio University and did not pay close attention to his studies. However, once he entered society, I heard that because of his connections with rugby football, his work progressed smoothly.

Many parents in this world misunderstand that if their children graduate from Todai, they will become leading individuals in the world. Looking at the societal positions of my classmates in civil engineering at Todai, not all of them were successful in their careers. Those who studied and graduated from private universities were as successful as those who graduated from Todai, and also became leaders in society. It can be said that emphasizing the importance of educational performance constitutes a negative factor towards healthy development of individuals in society. It should also be realized that assessment of individuals according to their family background is not appropriate.

From my experience, there have been many cases where families who have wished to have their children enter famous universities such as Todai, but the children have endured abnormal lives and encountered some tragic incidents. Education records and societal positions except in government circles, have no relationship to contentment. If parents wish their offspring to become productive in society, they should give them freedom to do as they wish at their own pace. The important advice is that parents should support the children as much as possible. Parents have no right to destroy their children's future. They should not stand in front of the children but extend their help in whatever direction their children want to proceed.

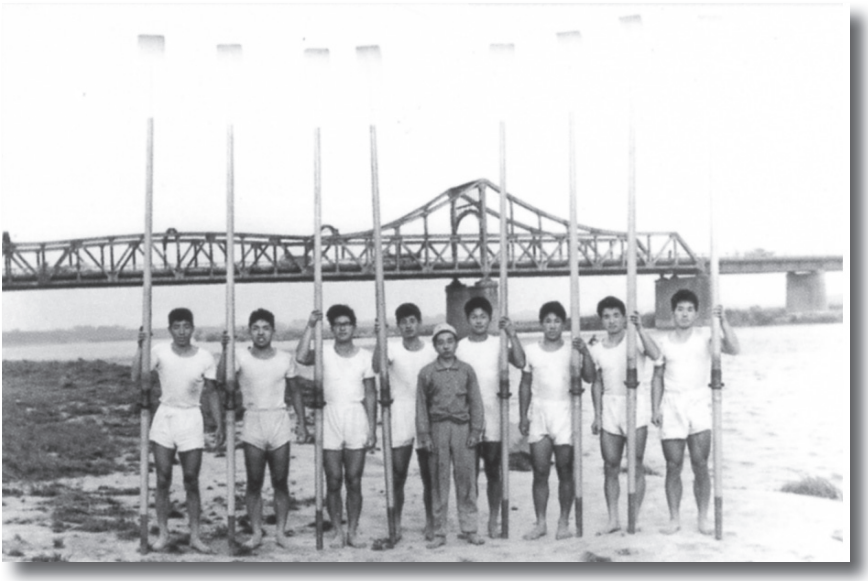
In summer of my fourth year, I participated in the World Championships in no- rudder pair Regatta together with Mr. Fukuda Koji in Lucerne, Switzerland and we were defeated in the Group Match. After that we toured Lisbon, Portugal and Madrid, Spain before returning to Japan. Then I had to write up my thesis, so I attended the university after a long absence. My thesis professor, Professor Okumura told me to do strength tests of steel used in civil work. However, after completing 60% of the testing, the test machine became faulty and with no budget for replacement, my professor told me to sum up the results of the tests that had been completed and write up the thesis for submission.

With this situation, I had some leisure time. Mr Takahashi Daisuke (called Daichan) who was my classmate but he was in the rugby club, was in the same situation. Every morning the two of us ran in the field of the University. After physical exercise to strengthen our bodies, we had breakfast on the roof of the building. Daichan was quite a villain and is still close to me. However, there was no communication with other classmates. I did not want to contact those classmates who on the one hand were quite serious, but on the other hand were interested in only their own advancement and not the achievements of other people. I had another friend like Daichan who was affiliated with the Alpine Club. He was Mr. Suzuki Hiroaki but died young. Later Daichan became Chief Engineer, the position next to Vice President of Rapid Transit Authority. I became a Professor at Todai. Some classmates who were quite serious just said that the two of us knew how to push our way around, thus becoming successful in life. I therefore do not want to associate with those people. To be serious in studying has nothing to do with the progression in society. In the real world, the important thing is not knowledge, but it is the human capacity to be able to lead. After submitting my so-so thesis, I hoped for graduation. Daichan set his target to tour Europe by bicycle with his friends and would stay there for one year.

The new year arrived, and I was expected to complete my studies. I received an invitation from Daichan's family to visit Iyosaijo City in Shikoku Island. We toured by bicycle from Iyonishijo

to Uwajima as our post-graduation vacation. The road along the seashore in January was windy and cold. It was difficult for cycling on the unpaved roads and we had to face the heaviest snow in 30 years. On the way we stayed at the ancestral house of our classmate for one night in Uwajima and enjoyed ourselves very much. As mentioned before, my university period was almost totally immersed in rowing at the rowing club and acquiring a close friend like Daichan was my biggest bonus.

Shunji Murai with Koji Fukuda
a crew mate of Rowing Club
University of Tokyo, 1962



❼ Participation in Rome Olympics

The selection regatta for Japanese representatives for the Rowing Regatta at the Rome Olympics in 1960 was set for May 8 of the same year. Todai dispatched an eight-man crew and rudder four-man team to the contest. I participated as an athlete in the rudder four-man category with the following crew. Bow (no 1 rower in front) - Mr. Fukuda Koichi, first year student (from Kurayoshi City, Tottori Prefecture), No. 2 was me, first year student (from Tokyo), No. 3 was Mr. Mizuki Shigeru, second year student (from Noshiro, Akita Prefecture), stroke was Mr. Okubo Naotake, second year student (from Sapporo City, Hokkaido Prefecture), cox was Mr. Saito, first year student (from Tokyo). The coach was Mr. Sugita who worked at Rapid Transit Authority (from Marugame City, Kagawa Prefecture). None of us had entered a regatta during high school since we had all started to learn row after entering Todai. Team body heights were as follows: Mr. Okubo 170 cm, Mr. Mizuki 172 cm, myself 177 cm and Mr. Fukuda 178 cm. When we were compared with crews from other universities, we were just like novices, and nobody would have picked us as crew members.

However, coach Sugita had two secret techniques. Since rowers with short body lengths would have shorter range, this could be remedied by changing the ratio between the oar's inner and the outer lengths from the fixing point, so that the inner

length was shorter and the outer length longer, resulting in longer range for the rower. But this would make each oar heavier, so the pitch had to be increased accordingly. Therefore, in a 2,000-meter race the tactics must be planned so that rowing times for the first and second halves must be maintained, and crew must not slacken off in the second half. For this tactic we might be a bit slow at the initial dash, but we would not slacken off in the second half, so we could catch up and finally win the race. Daily training was carried out at Arakawa for 300 times over long distances of about 2500 meters, and the tactic must be accomplished. In the actual race, this was the same situation; for the first 1,000 meters we were behind but could catch up at 1,300 meters and we turned out to win in several cases.

The betting circle gave the thumbs up to Tokyo University of Foreign Studies (Tokyo Gaidai) that won the race on the previous year (athletes were bigger and taller than 180 cm). There were two runners up, Asahi Denka Co. team and Furukawa Denko Co. team with athletes coming from university graduates who worked in the company. They were permitted to leave their workplace in order to participate in the selection tournament for representing Japan. Looking at the past record of those hopeful teams, it seemed that our crew was ignored by all.

The New Year came, and every team was very enthusiastic to participate in the selection of Japanese representatives to be

held in May. On the shore of racecourse at Toda, there appeared 5 or 6 spies riding on bicycles taking time checks of other university teams. They ran back and forth to check which team had good times. We also wanted to know our time, so we went for the time trial. In the beginning there was no spy following us, but by March, several bicycles were following us. Finally, it seemed that our time trial was better than expected. One day in March, the Japan Regatta Association made the announcement for the teams to enter the selection tournament for the Olympics to participate in 1000-meter time trial. Our team also joined but did not fare well because we were too excited. So, after discussion, we decided not to find out the result. But Mr. Mizuki secretly went to see our time and found out that we were No 1. The race of the eight-man crew, which was the leading event, the result was according to the rumors, that is, Tohoku University was No. 1 and Todai was No. 2. Every university has an eight-man crew. As for rudder four-man crew, the individual team (private sector) made the most effort. Asahi Denko Team, the favorite team did not participate in the time trial so we could not rest assured that we would win.

Finally, May 8 arrived. The regatta race to decide which team would represent Japan at the Rome Olympics was held. In the first round, Tokyo University of Medicine and Dentistry (Tokyo Ikashika) that rowed smoothly was our main opponent. At the start, we were behind, but at 1000 meters with spurt shout of cox Saito, we could overtake them in no time, and win the race.

In the semifinal round we must face Furukawa Denko team, but by now there was a strong wind. Normally, in the case of a strong opposing wind, the Association would reverse the direction so that the teams could record a good time. Rowing against the wind would suit us better, since we used to long range rowing which was effective for the finish of the race. In the semifinal round rowing windward, we could not catch up to Furukawa Denko team in the lead, no matter what. The waves were strong, and we were also rowing windward, so they were doing much better than us. However, with a full-strength spurt, both teams finished with the same time and the decision flag was not raised for quite some time. After discussion by the committee, it was decided that both teams had finished at the same time, and both could enter the final round. We felt reborn but confused.

In the final round there was the Furukawa Denko team, but the more formidable team was Asahi Denko. At the start dash to the 500-meter mark, our team was last, but after careful rowing past 1000 meters, we could see our opponents' boats. Passing 1200-meter cox Saito shouted spurt forcing us racing up to be No. 2 and we were seesawing with the Asahi Denko team. Passing 1400-meter cox Saito ordered the second spurt and later this was called double spurt that was Todai's trump card. This spurt enabled our team to pull slightly ahead and we tried to finish with meticulous rowing against the wind, while watching the opposing team. Finally, we won by just two thirds of the boat length.

At the finish no one in our team could stand up immediately. After a while when we reached the mooring near the Todai boat yard, we received loud cheers from our cheer squad. Cox of the winning crew, Mr. Saito was carried aloft and thrown into the pond in accordance with custom. Coach Sugita came to give inspiring words that the rowing was excellent. For Todai the race for eight-man crew, the leading and most important event and cheer squad was waiting while cheering "Better to win, better to win."

The result of eight-man race was as expected. Tohoku University won the race with Todai trailing second. From what I saw, the oar handling of Tohoku University was excellent. All Todai athletes were disappointed. The rudder four-man crew, with second league status even though it was selected to represent Japan in Olympics, but our eight-man crew with first league status, was defeated. Therefore, our four-man crew could not simply show our joy at being selected for the Olympics, but Captain Akamine walked to us and said "Murai well done." This made me feel relieved to hear the voice of the defeated commander.

Having decided which team would represent Japan in Rome Olympics, the Japan Regatta Association started to survey various statistics, such are, winning time of champion Europe and U.S. teams. At that time there was no internet, so data collection had to depend on the assistance of Japanese trading firms in the locality. We were shocked to find out that according to

the statistics, over 2000 meters, the teams were more than 10 seconds faster than us, a level which would be unbeatable, whereas for the eight-man crew, the difference was smaller but still quite difficult for us to pass in the first round. At this juncture, we felt gloomy about the tournament which had the catchphrase "To participate in Olympics is meaningful". However, for the athletes, we could not take such an easy attitude.

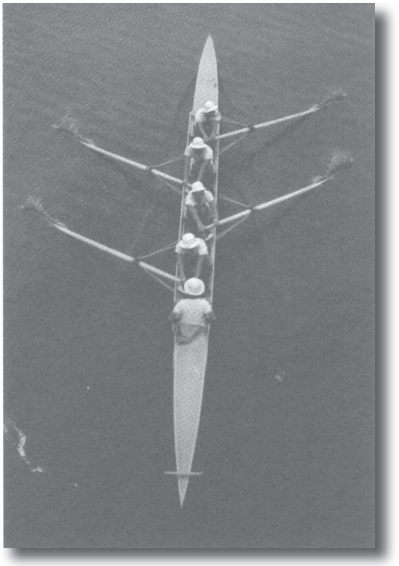
With a backdrop of a cheering crowd, we boarded the plane at Haneda Airport, despite some uneasy feelings. At that time, the plane was propeller drive, not a jet. So, the plane needed to refuel 6 times before reaching Rome with a total travel time of 31 hours. Each time the plane stopped to refuel; food was served. I ate too much and had diarrhea, but this was my first overseas travel. Rome was so beautiful, like a dreamland. We stayed at athletes' village in a western style room and were thankful for the excellent arrangements. It was the first time we saw a bidet on the toilet and did not know how to use it. After coach explained that it was an apparatus for woman, we were taken aback. The food was buffet style which was different from the way food was served in the camp of Todai. We were pampered and lived palatially. We trained in Albano Lake, the venue of tournament with pristine water so clear that we could use it to gargle. For our training, we competed a short distance with the rudder four team of Russia, but we were so far behind them that there was nothing to mention about win or lose.

For the opening ceremony, the participation of attendees was by drawing lots. When entering the main stadium, only Japanese and Republic of Korea team walked in line like soldiers in an army, whereas the rest of the athletes had one hand holding a camera, walking leisurely. We were forbidden from bringing a camera with us, so there was not even one picture of us in the stadium, whereas other national athletes took pictures of each other.

Let me talk about the result of the tournament. Although we knew from the beginning about the real power of other countries during the training, but still we were defeated in the first round and again failed in the selection tournament among first-round losers. Of course, we were very disappointed. We went to see the semifinal and final races and were very impressed. The most surprising thing was to see athletes who had rowed so hard and with full force that they almost fainted and had numbed legs at the end of the race. At that moment, I decided that even though I could not fetch a gold medal in the world regatta, I will win a gold medal in another field.

As for eight-man crew, Tohoku University clocked in No. 2 of the selection among first round losers. If they had achieved No. 1 they would have a guaranteed place in the final round, which was a much better result than for our rudder four-man crew. After the Olympics we travelled to Paris and London. The result of the boat racing was horrible, but for me, this was a great benefit

for my life. In London, we stayed at the dormitory of the Regatta Club with the courtesy of Oxford University.



❽ As staff of an overseas trading firm

Sometime in the spring of my 4th year, after the selection race to decide on Japanese representatives at World Championship in No Rudder Pair with Mr.Fukuda, Professor Okumura who was responsible for employment of graduating students of Civil Engineering ordered me to see him. My friend told me because a leaflet was placed on the notice board. When I met him, Professor Okumura said, "How about your employment?" I answered, "I have not thought about it, sir." Then the Professor said "I have a classmate who is the divisional director of an overseas civil engineering consulting firm called Nippon Koei Co., Ltd. Go and see what he has to offer." I immediately went to the company's location in Shimbashi and was told to "Go to have health check-up at a nearby clinic." After confirming my good health, I was told that on "April 1st next year, please come to the new recruit welcoming ceremony". For me, the World Championship Tournament in Switzerland was more important, so I decided that the earlier I could arrange my employment the better. So, I agreed to the employment without knowing the profile of the company.

I hardly attended lectures during that year and just borrowed lecture notes of my friends for studying. Then after the examinations I received sufficient units which enabled me to complete my study program without any obstacles. Though I managed to graduate, the only book I bought during my studies

was “Concrete Engineering”. Since I have a good memory, I could memorize most of the content of the lecture notes, enabling me to pass the exams. Rowing races at university had already finished, and I graduated without any problems. When I attended the new recruits’ welcoming ceremony of the company on April 1st, seeing my name displayed, realized that I had achieved employment.

At that time, Nippon Koei Co. Ltd. which had just been listed on the stock market, was a small company engaging in civil work design, especially in the design of hydro power dam construction in Indonesia. There were senior engineers advising us on the stability calculations of the land filled dam construction. The head of the section was a disgusting man. Even one made a small mistake, he would respond sarcastically with his habitual loud voice “You graduated from Todai, but do not understand this, is that correct?” Stability calculations were done by using a ruler and a compass on the segment drawing of the dam, calculating the area and finding its stability. For finding the sliding surface with the lowest stability value, it was necessary to construct many illustrations, then determine the stability value. Even if it was just one drawing, it could be a big job. When there were several construction plans, this was the job nobody wanted to do even though it was a simple task.

Since I thought that civil engineering design was dependent on concepts developed by humans, I was disappointed in this

process. At the same time I thought about the possible use of computers which had just been debuted for automatic calculation. The memory of computers then was so unbelievably small, while programming was by machine language. The company had no computers, so it was necessary to rent one from a dealer. I negotiated with the company and the dealer to automate the stability calculation of the dam for the first time though it was difficult to achieve. This was successful but the company said that the cost must not exceed the company's computer rental budget, which I made sure that I complied with. No matter what the shape and size of the dam was, the stability calculation could be determined. Therefore, it was possible to find out the best form of land-filled dam.

I submitted the best design to the head of the section, who said "It is not fashionable to build a dam according to another design, so your design is not usable" I did not know what to do since I had wasted time. However, later the international audit unit sent in the report that the design proposed by the company did not have good stability, and a new proposal had to be resubmitted which was my design. As a result I lost my confidence in the company.

By chance, at a lunch break, there was debate about the bonus of employees by the union. Because of my curiosity I went to participate. It was the discussion about whether the union

should propose how many months of bonus should be paid. Two years ago they got 3.6 months and last year 3.7 months, so this year they wanted to propose 3.8 months bonus. I was a new employee but raised my hand and said that "It is funny to propose bonuses like this. Bonuses are decided by the profit of the company at that time, not by progression of each year. The company had entered the stock market, so the profit should be large. So, we should propose more than 4 months." At that time, I stayed in the single dormitory in Kawasaki; my subordinate who finished high school shouted in support of my opinion. The union did not know what to do. So they turned down the proposal of the company and proposed a bonus of more than 4 months and entered into negotiations.

Since I was not on the committee of the union, I was not included in the negotiation team. I found a strategy around this by going to the nearby police station to request a demonstration in my name. Actually, I did not mean to hold a demonstration but just to intimidate the company. I provided some knowledge to the committee members of the union such that if they kept on negotiating as long as possible, then the company would give in. However, the company also intimidated some committee members, so finally it was settled at 4.2 months bonus without asking for my opinion.

After the negotiations ended, the reprisals from the personnel department of the company started. Union committee members were ordered to be dispatched to work overseas in company projects in Indonesia or Korea. As for me, who was considered as a black sheep in the company, I was sent to work in hydro power dam survey project in Ghana in Africa as the worst case.

Therefore, at the beginning of my third year at the company, I was dispatched to work in the survey planning of a hydro power dam on White Volta River in Ghana. The survey area was located in the north of Ghana, an undeveloped area with three endemics, namely, malaria, Sudden Unexpected Death Syndrome (SUDS), and microphilaria. The English colonizer called this area as "Graveyard of White people." My responsibility was to measure the water level and the flow volume of the upper reaches at the location of the planned dam construction on White Volta River. Measuring water level was easy; it meant just putting up a measuring pole and recording the level. But to observe flow volume was not easy. We selected five suitable locations, drilled concrete poles on both sides of the river, which was more than 50 meter wide, stretched a wire across the river and installed the equipment to measure the flow volume. A boat was fixed with the wire and the measuring equipment which was gradually lowered to measure the flow speed. In the dry season the water was shallow almost to the bottom of the river. However, in the rainy season, water level would rise rapidly up to 10 meters and the flow speed might

exceed 3 meters per second. Therefore, measurement during high water was quite dangerous. My assistant hired local people for this job but I got abnormal heartbeat every time I saw naïve young men unaware of the danger.

The area of the construction was a wide river over a distance of more than 300 kilometers. Road conditions were bad as it was a remote area, and it was difficult to move around. Even though we started work in the early morning, by evening we could finish measurement of water flow at just one location. In rainy seasons, mosquitoes were a hazard and among Japanese surveyors, some contracted malaria.

The survey office was also used as living quarters at a village called Walewale. In the adjoining village, there was an Indian doctor, to whom I took Japanese patients who contracted malaria, I was close to the servant and the cook of the residence because I could speak African English. People who contracted malaria had high fever of 40 degrees for three days. After three days the fever would subside a little and by this time the Indian doctor would give the prescription. i.e, to drink a lot of cow's milk, but the Japanese patients requested to have congee instead. Having to take care of the patients during this period, I did not observe the river flow volume.

Then I started to analyze why Japanese contracted malaria and I found out that the reason was quite simple. Food intake was

not good, leading to low immunity against malaria. Only I who ate spicy food like local people, whereas other Japanese people depended on instant noodles and instant miso resulting in an unhealthy nutrition balance. Moreover, the money given to the cook as food expense was embezzled. The supervision by the company's head office was quite careless. If such situations persisted the dam construction survey project would inevitably fail. I thought that sweating in a hot country in Africa was normal. So, I wondered why other Japanese staff did not exercise. Together with Mr.Sato who graduated from high school we set up a village level football team to compete against each other. I did not know how to play, so my duty was like a sponsor to throw the ball for kick-off. I Joined in the training and sweated so my physical health was strong.

Once I almost engaged in physical assault by demanding the head of the office to hand over one month's food expenses as indicated in our budget. At that time, I was weighing more than 80 kilogram with strong muscles. The office head then had to unwillingly oblige. With this money, every Tuesday morning we went to Mami market 100 kilometer away to buy vegetables, fruit, meat and fish. Fully loaded, we drove our jeep even without a driver's license, since driving was easy. We also bought a live pig and had the cook killed for a barbecue pork party. Beer was available at one's own expense, but since there was a lot of money we bought beer and let the Japanese staff drink for free. My handling was almost like

a revolution, but after that no Japanese staff contracted malaria.

However, my physical provocation was reported back to head office in Japan by the office manager. It was considered as messing with the company's regulations. One year passed while the survey of the area was going well, I was permitted to take one month's leave. Just a few days after returning home I was called to report at the office. Arriving at the board room, I saw five to six board members sitting there who told me to kneel and apologize for what I had done. But I argued that my action was necessary to accomplish the mission of the work. However, this was not accepted. The arguments remained unresolved. Thereupon I said that I could not go back to work in such conditions and offered to resign, which was duly accepted. I was thus unemployed and the job compensation after deducting the borrowed money, amounted to only 30,000 yen.

Let me give an account of the happy memory on Sunday in Ghana that might not be seen in Japan. The first memory was cruising downstream without telling the company. Since I used to row in the river while at the rowing club of the university, I asked the local people to build two boats like canoes facing front. Besides, I bought one similar to Japanese O-one boat, which had the rower facing to the rear. About 10 kilometers farther out on the White Volta River, we surveyed a place suitable for mooring and put up a red flag. Then I had the fisherman who was hired

as local employee to sit on the boat and I was the rower. At first, the flow was serene with crocodiles lying in the sun along the shore. The flow was gentle and the local people were singing by squeezing the nose. After a while, there was a rumbling sound and the fisherman said that there was swift current and we must be careful. I used the oar to navigate the boat to the best of my ability in the swift current so as not to let the boat hit the rock and luckily I escaped. There were big stones in the swift current and between the rocks the flow was swift. It is important not to let the boat hit the stones. This was a dangerous venture and was achieved because I was still young.

Another memory also concerned with the adventure in the river. Just before the dry season, in order to preserve drinking water, we used a bulldozer to fill up the soil on the shore of the small river to make a reservoir. Since the rivers in Africa were different from the rivers in Japan in that the slope was very small i.e. 1 : 10,000, building an embankment 3 meters high ended up with 30 kilometers long reservoir. There were no roads along the shore, while upstream was unhabitable land. Surveying the river was carried out by using two canoes in parallel with two local people sitting in each canoe. After travelling for 10 kilometers we reached a village. It happened that people were preparing to cut the neck of a crocodile they had caught. I asked the local employee to negotiate for the head with a small tip. The head of the crocodile was neatly dried. When I returned to Japan, I put it in the suitcase

and passed the quarantine check. Now the crocodile head with the upper teeth crushing the lower teeth is still kept in my house. It is quite scary to look at it. The cat in my house jumped away immediately after seeing it.

❾ Murai Lab Period of IIS, Todai

After resigning from the company and receiving unemployment insurance, I could not tell my parents, so I acted as if I was going to work as usual. At the end of March Showa 42 (1967) Mr. Takahashi Daisuke and Mr. Shimoda Koichi, my classmates at the Civil Engineering Department of Todai called and asked me to go with them to visit Professor Masuyasu Takakazu, who taught us photogrammetry, to report on our activity after employment. I went with them thinking that we would be treated to lunch. After reaching Sensei's house, and finishing lunch brought from the shop, Sensei said, "Now report about your work." This was beyond my expectation. Mr.Takahashi said that "I work at the Rapid Transit Authority doing project design of highways" and Mr.Shimoda said "I work at the Housing Authority doing new city planning." Next was my turn but I did not want to say that I was unemployed, so I spoke without thinking that "During my university time I did only rowing without any studying, so I would like to study under Sensei's guidance." And Sensei said that "You don't seem to pass the postgraduate entrance exam, so you will just pay a monthly tuition fee as a research student."

Thus, I began my life as a research student at Maruyasu Laboratory of IIS of Todai in Roppongi. Since I had no money, it was quite difficult to pay the monthly tuition, so I had to save on lunch and bus fares. At that time, Nakamura Hideo Sensei, five years my

senior at Civil Engineering of Todai, worked as a lecturer at Maruyasu Lab, and was tackling analytical aerial photogrammetry by computer using complex mathematics. I did not study much during university period, but by nature I was good at mathematics, so I could solve the complex mathematics of analytical photogrammetry. Then I was advised by Nakamura Sensei to undertake the difficult task of writing a machine language program for use in the only computer in the lab at that time. Professor Maruyasu entrusted the total supervision of the lab to Nakamura Sensei and rarely showed up. Since Nakamura Sensei was a young and energetic researcher, I learned many things from him. However, at that time, Nakamura Sensei's salary as lecturer was considered poor. I still remember at a drinking place in Shimbashi quite often I just asked for a glass of beer, but I brought my own relish.

Soon Nakamura Sensei finished his doctoral dissertation and received his doctoral degree, and thus was promoted to the position of Associate Professor. He said to me "Murai, you seem unable to make ends meet financially, so I will ask Maruyasu Sensei to replace me with you as lecturer. He also said "The salary of lecturer is low but you can still make a living" Thus I advanced to lecturer from the research student. In the meantime, Nakamura Sensei presented a research paper at the International Photogrammetry Society Symposium held in Tokyo. Since it was an excellent paper, it drew the attention of the renowned professor from Stuttgart University in Germany and Nakamura Sensei was invited to that university

as a researcher. Of course, Nakamura Sensei wanted to go to Germany but Professor Maruyasu who had entrusted him to look after the Maruyasee Lab opposed the move. However, Nakamura Sensei finally left for Germany despite the unresolved opposing opinions of both professors.

In such a situation, it was inevitable that I was given the task of supervising the Maruyasu Lab. I was entrusted with the job of advising master's degree research students' thesis and bachelor degree students' thesis who were dispatched from Hosei University, as well as conducting contract research. Despite my thoughts of coming to Maruyasu Lab to study, now my position was changed to teaching. The complete supervision of the lab for Prof. Maruyasu was my responsibility. This was the situation just before my marriage.

Professor Maruyasu ordered me to write up the doctoral dissertation but without giving me a research theme or content, he just told me to work it out for myself. This was just after my wedding. After my newlywed period we were living in a rented house in Asagaya. At that time, I was grappling with civil engineering design of numerical topography data derived from aerial photogrammetry. The determination of the amount of earthworks derived from cutting and filling for golf course developments or for housing development projects was in high demand. So, I developed the algorithm to minimize the amount of earthworks

and called it optimal design. This was released at cost to nearly 30 civil engineering companies and the income was useful for the operation of the laboratory. Besides, putting in some original ideas I completed the doctoral dissertation which passed the fastidious examination of the professors and was blessed with the title of Doctor of Engineering. The result enabled me to be promoted in due course from lecturer to Associate Professor under Professor Maruyasu. This was an evolution of my career that was totally unimagined earlier. At this time, I could move to stay at government residence at Musashimurayama City. We had an extremely poor newlywed life, but now life became easier. My elder son Kenji was born during our stay at Asagaya and my second son Tetsuya was born when we stayed at Musashimurayama. When I became Associate Professor of Todai, I was shocked to see that suddenly society looked at me in a completely different way. Even though I had not changed anything, I think society overvalued the title of Associate Professor of Todai.

After some years had passed, an event occurred that was a big turning point in my life. The Ministry of Education approved a new professor chair of photogrammetry in Civil Engineering Department of the Faculty of Engineering of Todai. Professor Maruyasu was appointed chair professor of this new position and moved from the IIS at Roppongi to the Hongo campus, resulting in the closure of the Maruyasu Lab in IIS and the establishment of the Murai Lab. Thus “Murai Lab” was born.

At the Muria Lab, the guidance of doctor and master's degree students, the guidance of thesis students dispatched from Hosei University, the preparation of my own research papers, applications for scientific research funds, the handling of contract research business, etc. came under my supervision and responsibility. It was fortunate that teaching staff of IIS had to lecture only once or twice per week for master's degree courses and could concentrate on research. This for me was the ideal workplace.

For the Murai Lab, the especially important responsibility was how to guide the students who were expecting to be active in society in the future. Comparing the Todai and Hosei students, no matter how I judged them, after entering society, Hosei students would seem to be more active in enterprises. Certainly, Todai students were more intelligent, but when a big cleaning of the Lab occurred, Todai students did not cooperate or just sneaked away. At drinking or food parties at the Murai Lab, Hosei students were more prompt in preparation and cooperated to create a happy atmosphere. Therefore, I set up a plan to recommend students who were active and interesting people, when they were ready to enter society. As for the Todai students, even though they were left alone, they were capable of preparing research papers, so I needed only to discuss with them the themes they will undertake in their research which would contribute to society.

Then just before the noon lunch break, I asked the students to secure the tennis court in the inner grounds of IIS. I enjoyed noon break tennis with everybody in the lab. After working hours sometimes past five in the evening, we took beer from the refrigerator which we enjoyed with relish. I bought tofu from the shop at Roppongi, which would close in the evening but if we went just before closing, we would get a good discount. We relished this opportunity for food and drink. At Murai lab, photogrammetry was the research theme, so there was a large refrigerator for storing film, so I used my pocket money to buy the beer and store it there. In spring and autumn, I took students to stay at the lodge for tennis or mountain climbing. In winter it was the ski lodge and in summer, sea bathing. Lodging expenses were paid for by Murai lab and the students just took care of their travelling expenses. Incidentally, at that time China had just opened up and there were several Chinese students coming to Murai Lab. All the expenses of Chinese students were the responsibility of Murai Lab. Chinese students could make Tianjin dumpling, so everybody helped in making 500 dumplings and have a big party from time to time. I also guided them that it was satisfactory even if their master's degree thesis or bachelor's degree thesis was not rated excellent, just passing the examination was adequate.

From Showa 41 (1966) to Heisei 12 (2000) is a total of 34 years that I worked at IIS of Todai and there are too many accomplishments to write about in one chapter. So, I present

here the activities which were outstanding in Chapters 10 to 12. If I were to rate my accomplishments, no.1 would be my international activities. Concerning research papers including submitted papers and peer review papers, there were about 350 each in Japanese and English. My 300 overseas trips including tours of duty was an especially high number for a university professor. There were also nine authored books.

My three main international activities are as follows. The first concerned with the task as ISPRS President and Director from 1984 to 2008 for 16 years, which appears in Chapter 12. Second was the involvement as the originator of Asian Association on Remote Sensing (AARS) with the first conference held in 1980, and as Secretary General of AARS, I organized the Asian Conference on Remote Sensing (ACRS) in various countries in Asia outside Japan for 30 years. The story is described in Chapter 11.

As for domestic accomplishment, this was the rejuvenation of the almost extinct Japan Society of Photogrammetry and put back on the right track as appears in Chapter 10. Now let me continue with the activity of Murai Lab.

It was a blessing that almost all of those who graduated from Murai Lab said that they were happy at the Lab. It was gratifying to see the setting up of OB Club called “Samurai Club”. Students who graduated from Murai Lab were not especially eminent but entered into the society and worked in enterprises

or government offices with healthy societal attitudes. By and by some approached retirement age. Now the custom is not to have a matchmaker at the wedding ceremony. In the past I could not refuse when asked by the graduated students to be a matchmaker of nearly 30 couples, mostly former students, but Taeko my wife disliked this. Mr. Asakura Kengo, first year graduate of Murai Lab was the first instance.

Self-styled Murai Lab continued with smooth operations and supervision but for me another big turning point occurred internally. Around 1990 Dr. Shibazaki who graduated from Murai Lab was promoted to the position of Associate Professor. At that time in the case of the promotion of teaching staff who had held the position of Associate Professor for many years to the position of Professor, an existing professor had to make a position vacant. I thought that it was good to leave the post to Dr. Shibazaki. It happened that I was approached to take up the post of dispatched professor of JICA for long term stay at the Asian Institute of Technology (AIT) in Pathumthani Province of Thailand. I also would like to give guidance at AIT for mainly graduate students of Asia. As soon as I accepted, it was decided to send me to AIT for three years from December, Heisei 4th year (1992) to December Heisei 7th year (1995).

Actually, around the same time of my dispatchment to AIT a big turning point occurred for our family. As described

before, from the inheritance struggle of Murai family, I received 7 million yen. I asked Taeko my wife "Is it all right to use this money freely without consulting you?" And she replied that it was O.K.

Then there was a proposal from Dr. Sukit Visetsin who graduated with a doctor's degree from the Murai Lab and had returned to Thailand. His mother was in the real estate business and possessed eleven pieces of land. I was instructed to choose the land I liked, and the rent would be free. I immediately went to Thailand and Dr. Sukit's father drove us to see several pieces of land. Among these there was one which was situated near the shore of Thailand's largest river, called Chao Phraya River, that caught my attention. Since I used to row during my student period, I would like to have a house on the shore of the river. The contract was immediately signed for rent-free occupation of this one-hectare piece of land. I was told that building a new house would cost 5-million-yen, furniture around I million yen and air conditioning, etc. another 1 million, with a total cost of 7 million yen. This was the same amount I received from the inheritance, so I immediately requested the new house to be built, which was decided without discussing it with Taeko. I made the decision without even looking at the map to see how far this land was from Bangkok.

One can never foresee one's fate. Soon after ordering the new house to be built, I was persuaded to become teaching staff at AIT under the JICA project and I accepted. Now it was not

possible not to tell Taeko, my wife of my decisions. As soon as I told her of my decision, she was angry saying "how could you decide such an important matter without discussing with me?" and did not talk to me for one month. Since these two incidents happened almost at the same time, I was very excited about future prospects.

After a while, Taeko suddenly said to me "I will go with you to Thailand." She did not give a reason but I found out later that she was instructed by her friend that if a well-to-do Japanese man went to stay alone for a long period in Thailand he would take on a Thai girlfriend resulting in family breakdown. At any rate I decided to work at AIT and live in the yet to be finished new house with my wife.

Since my new house would only be finished just before our departure to Thailand, Bedding, tables, utensils, etc. were bought in advance but there was no time for trial living. At that time, we had one dog called Cotton, one cat called Chibi and two kittens called Tokon and Anton, so we brought them along with us. After passing through animal quarantine at Narita Airport, we received the dog and the cats at Bangkok Airport and brought them to our new house at the corner of a village near the shore of Chao Phraya River. A young maid called Wandee was waiting for us. Being a new house there were no trees around, and even with air-conditioners it was so hot. There was no tap water, so canal

water was filtered for use. 20 litre bottles of drinking water had to be bought. The most inconvenient aspect was no telephone. At that time, smart phones did not exist, so we bought a wireless phone, but the battery ran out very quickly. It was like a house at nowhere. Soon after living there, we found a small village near the shore of the river just a small walk from my house. The villagers used to come-and-go freely out of curiosity about the Japanese people. In the one-hectare plot of land there was a small canal with a village alley passing through, so people just peeked into the house. Nearby there was a gardener called Charoon, so we asked him to take care of the plot. He was a good guy but just so-so at taking care of the garden. Food purchases were entrusted to our maid Wandee, but she was just a 16 years old girl, not shrewd and not a good maid. I had to go to the Pathumthani market with our driver Jon in our new car. Soon after, we changed the maid to an older woman called Da. She was very good at cooking and was impeccable in cleaning the house. She could communicate closely with Taeko and was very useful helping us out with our living in the village. We only ate Thai food and the fruits were delicious, so we could eat Thai food without difficulty. Fresh food ingredients were bought at the market by the maid. We were also invited to different functions at the Buddhist temples.

I had had experience in under-developed areas of Asia but for Taeko this was her first experience, so she had to face continuous ordeals. However, in no time, primary school girls and

boys were brought to our house and Taeko was asked to teach them Japanese. It seemed that those who could speak Japanese even a little would have an advantage if they worked at some Japanese company. Once Taeko agreed to teach them Japanese, those children were very happy to come to our house. They wanted to come because this was the only house in the village which had air-conditioners. Japanese lessons were no more than 30 minutes, after that it was playing and dancing and jollification, and then going home. Taeko also learned some Thai from the children and eventually could speak a little. She also learned to read and could write some simple words. I also joined in the lessons from the Thai language teacher but for me I could only speak very simple Thai words.

Soon we could communicate with the villagers and were invited to attend the events of the temple nearby on full moon day. After chanting the sutra, before noon the villagers would offer food that they brought with them to the monks for lunch. After that they would form a circle of about ten people to have lunch together and I was also invited to join. At the end it was customary to present donations in front of the monks. Since I was called "Doctor Murai" in the village and the donation was announced, it was a must for me to donate a large amount, several ten of thousands yen each time. By doing so, the maid and the gardener could feel proud. I stayed at AIT for three years, then after a short interval, another two years, totalling five years and reaped valuable

experience from living in the village. After returning to Japan, Taekeo wrote and printed a book entitled “From Village in Thailand” at her own expense.

I started to live in this house without knowing how far it was from AIT. Actually, it was only about a 15-minute driving. However, there was expressway construction at that time, so it took 30 minutes. It took about one hour to reach downtown Bangkok. Japanese teaching staff at JICA who stayed in high end mansion at Sukumvit area were amazed to see us staying in the village. Looking back, by living in the village, we could come to grips with not only the culture and traditions of Thailand but also the thinking of the public. I thought this was a really good experience.

Soon after I arrived, Dr. Suvit Vibulsresth Director of Remote Sensing Division, NRCT (later changed to GISTDA) requested me to give special lectures in his office. So, I began to give monthly lectures. At that time, information technology, such as image processing and output generation by computer in Thailand was out-of-date. The lectures ranged from theory to real applications. Then came the request from the Air Force and I visited several facilities. Normally there were about 30 attendees but at times of a special topic, there were about 80 people participating. Of course, this was a free service. Such activities and the regreen movement under the auspices of HRH Princess Sirindhorn were highly valued, resulting in my receiving the decoration of the order of Knight

Commander of the Most Exalted Order of the White Elephant from King Bhumibol Adulyadej of Thailand in 1997. Although I did not think that this was very special, later I learned that an English Professor who was AIT President received a lower order of elephant family decoration. I was quite surprised and could not tell other people at the university about my conferment. Besides the certificate, there was a pendant and star crest. I put the decoration on the ceiling of the house and did not show it to my sons.

Among the staff of NRCT there were Miss Ratana, Mr. Ittipon and Mr. Thongchai who invited us to join in playing badminton every Friday evening at a badminton club. Since we had enjoyed playing badminton in Japan, we started to go with them. Even in the evening in a hot country like Thailand, to play in the gym without air conditioning made us sweat profusely. After playing and shower, we went to a Thai restaurant for Thai food. Having dinner with Thai people we were taught different ways of eating and could enjoy delicious dishes. It was always I who paid the bill. In Thai custom, the boss or senior people are obliged to treat, and a Dutch treat is not accepted. Thus, I gained valuable experience in eating Thai food.

During vacation, together with these Thai friends we were invited to tour some famous tourist spots together, enabling us, husband and wife, to enjoy Thai style travel. It can be said that Thai

people are expert in enjoying travelling and living without using a lot of money. We were also taken to interesting places not visited by Japanese people. For example, the tiger farm where tigers were set free to roam, Koh Surin Island where aborigines still lived like in the old days or staying in the bamboo cottage on the Kwai River. We also visited Chiangmai, Ittipon's birthplace, and we were guided through his house, seeing the lifestyle of Thai people with much interest. The birthplace of Thongchai was in the south and after visiting, we could see that manners and customs differ from the north of Chiangmai.

During my stay at AIT, I hired a secretary called Wandee whose birthplace was in Khaolak in the south of Thailand. The Sumatra Earthquake occurred after my retirement, with a Tsunami (M 9.1) and Khaolak was totally destroyed. Six of her family including her mother lost their lives. To pay condolences I left with my wife to visit the site. I was told that in the orchard operated by Wandee's relative who survived, there were many corpses swept by the tsunami. Wandee's house was destroyed by the tsunami but I paid the cost of rebuilding.

Let me report on my five-year activity at AIT. At first, I was placed in the Computer Science Department. There were staff of different nationalities, from Thailand, India, Vietnam, etc., each with strong individuality and they were always fighting. Once at the election of Head of Department, I discovered wrongdoing by

the Indian staff member and his elected Department Head position was cancelled. The result of the re-election turned out that I was elected as Department Head. The budget of the Department was meagre. Even though it was called the Computer Science Department, there was only one computer for the students to use. Since I was also elected in the name of representing Japanese staff, one part of JICA budget was used to purchase 30 sets of personal computers including software so that each student would have one personal computer to use. After that there was no more fighting among teaching staff. Students were very satisfied with the conditions in the department.

Around this time, a student called Krishna from Nepal, told me that there was a soccer tournament in the university and as classroom representative, asked me for some support. On asking about past results, the answer was that they were defeated in the preliminary round. I then gathered all the players and stimulate them that "if we win the championship, I will invite all of you for dinner party with no-limit on the beer." At that time beer was expensive alcohol and affordable only by rich people. Common people normally drink only Thai whisky. Suddenly all the students were in high spirits. Winning the preliminary round, semifinal round to reach the final round, I participated to cheer them on as Head of Department and cheered them with a loud voice "Must win to drink beer." We won and became the champions. How delightful it was to see the joy of the students in the party

with no-limit beer. The party expense for 30 students was no more than 50,000 yen; it was not a burden for me.

AIT was established by United States to prevent communist domination in Asia. At the time it was established, it was an international graduate school hitherto non-existent in Asia. There were only master's and doctor's degree courses consisting of students and staff from different countries. At that time JICA dispatched five to ten Japanese teaching staff with a minimum posting of two years. As for me, at first it was for three years, and one year after another two years, for a total of five years. The salary was 70 percent (minus bonus) of the present affiliation plus 100 percent of the salary at AIT, so it was quite a high salary, i.e., yearly income was 1.7 times my current salary. Since living costs were cheap in Thailand, we could save a lot of money.

Let me introduce my biggest contribution to AIT. After two years at AIT, I came to know the limitations of AIT. Graduate education was great but there was no research to tackle problems that should be solved in the Asian region. Despite the UN, Asia Development Bank (ADB), World Bank etc, providing the budget to solve the problems of Asia, AIT lacked research capability and power to handle research problems. Therefore, I thought of setting up an independent research center. Although I requested AIT for some room for the center, I was provided with only about two classrooms. Then I requested AIT to provide some land, and we would use our own funding to build an independent building.

The funding was financed from my savings and Thai Obayashigumi Co. was commissioned to construct the building. I designed and planned the rooms of the two story building. Since land subsidence from excessive underground water pumping was quite severe, Obayashigumi was requested to drill 30 meter long piling down to the firm solid foundation so as not to risk subsidence of the building. Thence "Geoinformatics Center (GIC)" was completed and provided the space for staff of about 30 people. The name of the Center at first was different, but it was later officially changed to Geoinformatics Center (GIC). On February 19,1999 we received the blessing of HRH Princess Maha Chakri Sirindhorn to preside over the grand opening ceremony. This was the event just before completing my five-year assignment at AIT. It is fortunate that at present Mr. Manzul, alumni of AIT from India is the Center Director hiring 15 research staff with exclusive independent operation. I hope to join the 25-year anniversary celebration in 2024 to give felicitation remarks as the originator.

Let me introduce one activity worthy of mentioning among my activities in Thailand. Once there was organized a seminar on the conservation of tropical forests at Khao Yai National Park. HRH Princess Sirindhorn graciously presided over the opening ceremony and attended the landscape tour. I presented a talk on how satellite imagery could monitor the depletion of forest due to deforestation. HRH Princess Sirindhorn was very interested and asked me how to prevent the destruction of tropical forest.

To which I replied without thinking, that just using remote sensing to analyze the forest decrease was of no use. But if HRH Princess Sirindhorn would graciously lead Thai citizens to plant the trees, this would be most important. As I added that tropical reforestation movement should be carried out, HRH said that "I will support it but Professor Murai please lead the project"

Thus, I started Re Green Movement (RGM) Project as a Princess Project of HRH Princess Sirindhorn with the cooperation of Royal Forestry Department. The planting method was taken from Ecological Planting Method proposed by former Professor Miyawaki of Yokohama City University with his kind guidance. It was regrettable that Professor Miyawaki died several years ago. Since 1991 in the remote areas of Thailand with border police stationed, activities of RGM have continued once a year. The reforestation was continuously carried out at the hilltribe village near the border, where around 500 villagers and primary school students worked together with 10 to 20 volunteers from Japan. Royal Forestry Department provided about 10 different species of seedlings totalling up to 30,000. It was reported that HRH had visited the area of RGM. It was a great honor to be graciously invited with Taeko my wife, for dinner with HRH at the palace and report on the RGM activity. From this endeavor I received the Society Contribution Award. At present the ecological planting method of RGM proposed by us is being adopted as a national project for reforestation of the whole of Thailand.

The activity of RGM was put on hold for 4 years due to COVID pandemic but has since been revived from 2023 at Suan Phung in Rachburi Province, where there were 17 volunteers from Japan participating. Before travelling to carry out the activity, besides myself, Mrs. Kataoka Richi, Dr. Suvit Vibulsresth, former Director of GISTDA and Miss Sudchai Naikaset, four of us received royal gracious permission from HRH Princess Maha Chakri Sirindhorn for an audience. I reported that among the volunteers this year there was one senior aged 93, Mrs.Kataoka Eiko and HRH was very surprised. HRH said that RGM activity would continue to be supported as a Princess Project. I also said that the name of RGM was difficult for the general public to understand, so I proposed the name to be changed to HRH Princess's Forest Project and hoped that this would be approved. I would like to thank Dr. Aphisit Pongporn, Director, Office of HRH Princess Maha Chakri Sirindhorn Project for great support in the restarting of RGM activity and assistance in granting us the HRH audience.

The activities during the period at IIS of Todai will be described in the chapter to follow, but I will make a quick summary here. Probably I am a rare person among Todai professors.

I did not graduate from the graduate school. During my bachelor degree study I hardly attended classes, since I was immersed in rowing and participated in the Rome Olympics. I finished my doctoral dissertation without any guidance; during the tenure for overseas activities I travelled abroad almost 300

times and stayed abroad for five years during which time I set up Geoinformatics Center (GIC) with a new independent building at AIT; built a new house in Thailand and lived with my wife and one dog and four cats in the village ; I received royal support from HRH Princess Sirindhorn for tropical forest re-green movement which continues to the present.

In retrospect, from my vigorous action I might have caused some uneasiness to people. I feel sorry for this, but each time it was the power of acting recklessly based on the inspiration derived from my unique original creativity. No wonder that I have a lot of enemies, but I think that many supported me. I am sure that I have caused a lot of trouble to Taeko, my wife, but for Taeko who graduated in geography from Ochanomizu Women's University I venture to say that she had tasted valuable living experiences geographically on site in Thailand.

Kenji my elder son with his wife Mihoko had their honeymoon travel to Bangkok and stayed at our Bansuan house. At the same time, my younger son Tetsuya also came with his bride-to-be Kawana Mizuho to visit our house near the shore of Chao Phraya River. That was before their marriage and were wondering about their future, but finally they got married and it turned out well. It happened that Bansuan was in the middle of flooding, water came I meter above the floor. It gave me memories of rowing the boat to guide them around the house.

Professor Murai with friends celebrating his decoration from the Royal Thai Government.

Taeko, with the children of the village coming to learn Japanese.

Bansuan during flooding.

Travelling with staff of Gistda.

With graduating students of AIT.

Scene of Regreen Movement planting activity.

With remote sensing training course participants from Asia organized by RESTEC.

AIT
Asian Institute of Technology
Km. 42 Paholyothin Highway, Klong Luang, Pathumthani 12120, Thailand

THE SCHOOL OF
ENVIRONMENT, RESOURCES AND DEVELOPMENT
Space Technology Applications and Research (STAR) Program
Phone: (66-2) 524-5577,5591, 5690 Fax: (66-2) 524-5597

P.O. Box 4 Klong Luang Pathumthani 12120 Thailand ● Tel. (66-2) 516-0110-29, 516-0130-44 ● Cable: AIT ● Telex. 84276 AIT TH ● Fax. (66-2) 516-2126

May 19, 1997

Dr. Suvit Vibulsresth
Secretary General
NRCT
196 Phaholyothin Road
Chatuchak, Bangkok 10900

Dear Dr. Suvit :

I am pleased to accept your invitation to serve as an advisor to National Research Council of Thailand for the period of May 1997 to May 1998.

I wish I can contribute myself to NRCT's development in remote sensing and GIS technology.

Sincerely yours,

村井俊治

Shunji Murai
Chair Professor

Shunji Murai

⑩ Rebuilding of J.S.P.

1972 was for me a special year in my life. Besides being the year that we built our new house in Mejirodai, Hachioji City, it was also an important year establishing the research direction in the University. In July of this year ISP Congress was held in Ottawa, Canada. I attended as secretary of Professor Maruyasu. On the second day of the congress, i.e., July 23, the United States launched the first earth observation satellite, LANDSAT-1, and the first received satellite imagery was shown at this international conference. It was announced that people of any country could purchase satellite imagery of any other country. At that time, the Vietnam War was still on going. Photogrammetric technology for the production of topographic maps from aerial photos taken from airplane was suddenly changed by this epoch-making science and technology revolution that was capable of making maps of the whole world from satellite imagery. With the advent of this science and technology eight years later the name of I.S.P. was renamed to International Society for Photogrammetry and Remote Sensing (ISPRS). Remote sensing as a new branch of knowledge was born and had become my main professional technology area. I was a lucky man who could tackle research of this new science and technology area called remote sensing from the very beginning. It can be said that this was the epochal happening in my research life.

Some Japanese professors whose names were not well known, set up a new Japan Society of Remote Sensing. Professor Maruyasu also left JSP and became one of the three founders of the new society. This resulted in successive withdrawals of membership of JSP with only 500 members left, which was the limit of operation of the Society. The publication of JSP journal was delayed and the salary of office staff, Ms. Soejima, was also cut. Professor Maruyasu just left his comments "Murai, please look after JSP." Professor Nakamura, my senior was asked to take up the position of President with me as Secretary General to try to revamp the Society.

At that time Fujino Chiwako san, my secretary was asked to help by stopping the outsourcing of the editorial work of the Society's journal. She was sent to the editorial seminar/ workshop of Asahi Culture to learn the basics of editorial work. When exchanging name cards with the people of the enterprises, a request was made for placement of advertisements in our magazine. If contract research was received through the Society, ten percent of the income would be assigned to the Society. Seminars presenting research papers in spring and autumn were customized to be held in Tokyo for spring and in other places for autumn. With lots of ideas being considered and implemented, the Society emerged from its deficit condition.

The main members of the Society also reemerged, making it more active. It was fortunate that the official representative of Japan in ISP was JSP, and not Japan Society of Remote Sensing. It was the period of high growth of the Japanese economy and the progress of economic development was spectacular. Gradually there were high expectations to hold the first Asian ISP Congress in Japan. At the 1980 ISP Congress held in Hamburg, Germany, it was expected that Japan would propose to be candidate for the 1988 Congress. When the quotation of expenses of 300 million yen to hold the Congress at Kyoto International Convention Center for ten days was received, the large amount seemed impossible to collect, and therefore the proposal was abandoned. However, at the Congress four years before, Professor Nakamura proposed Tokyo as a candidate but was defeated. Then Professor Nakamura said "Murai, boldly propose the candidacy and I will give full support." In the end, I made the proposal for candidacy of 1988 ISP Congress and Japan was selected by ballot. Details will be described in Chapter 11.

After Kyoto ISP Congress ended in great success, I became the de-facto responsible person of JSP. We had Professor Nakamura as President, but the management was left to me. Since we had a profit of 50 million yen from the Kyoto Congress, the problem of funding was resolved. The office of the Society at the rented space in one corner of the university research center was moved to a rented room in a building at Ikebukuro. Staff Soejima san,

was released from her low quality office accommodation, since we could rent a cheap priced room at the Japan Surveying Association where I used to be President.

I would like to say something about the management of JSP after Kyoto Congress. I was imbued with the philosophy for leadership from two great men of ISP, namely, Dr. Fred Doyle of U.S Geological Survey and Professor Gottfried Konecny of Hannover University of Germany. I was taught by Dr. Doyle the former ISP President, that if one cannot make a difficult decision even in the presence of opposing opinions, he cannot be a good leader. This is the first step of leadership. From Professor Konecny I was strictly instructed never to let crocodiles enter into the organization. Even if just one crocodile is let in, the organization will be destroyed. There are two categories of humans, elephants and crocodiles. Elephants work to feed themselves, but crocodiles are lazy animals. They do not work, but just wait for food to drop into their mouths. Professor Konecny taught me that the organization should comprise only those who work. I followed the philosophical thoughts of these two mentors. At the selection of directors of the Society, those haughty academicians thought to be like crocodiles were left out and new life was injected. Disparagingly speaking crocodiles were critical that JSP was Murai's family, but I did not pay attention.

After Professor Nakamura, I took charge of the President and continued for 12 years. Let me summarize my achievements. Firstly, I set up the rule to have annual conferences in spring in Tokyo and academic seminars in autumn in other places. The book "Analytical Photogrammetry" which included difficult theoretical equations of Photogrammetry was printed at the Society's expense. More than 20 years after publication, the book is still available in the bookshop. The rule was set to pay 10% overheads to the Society in the case of university professors receiving contract research through the Society and the income was useful for the operation of the Society. The most important thing was how to secure members. Since we had to compete with the newly established Japan Society of Remote Sensing, members did not increase as expected. Around one thousand and a few hundred members could gather as good colleagues. The happiest occurrence was the transformation into an organization in which young professors and researchers cooperated positively in the management of the Society.

During the presidency of Professor Maruyasu, the atmosphere of board meeting was like a coffee salon, not conducive for young people to cooperate. The papers for presentation at Society conferences were hard to assemble. Mr. Oshima of the office had to make many phone calls before enough papers were collected. Young man like me felt uneasy and so left the meeting quite often.

After my retirement, my former student Professor Chikazu Hirobumi of Tokyo Electricity University took up the Presidency in line with Murai policy. It was gratifying to know that its operation is healthy. Recently after the retirement of Professor Chikazu, Professor Shimizu who retired from Todai took up the presidency of JSP and continued along the same lines. Professor Shimizu was the student of Professor Nakamura Hideo, so he was like a brother student of mine.

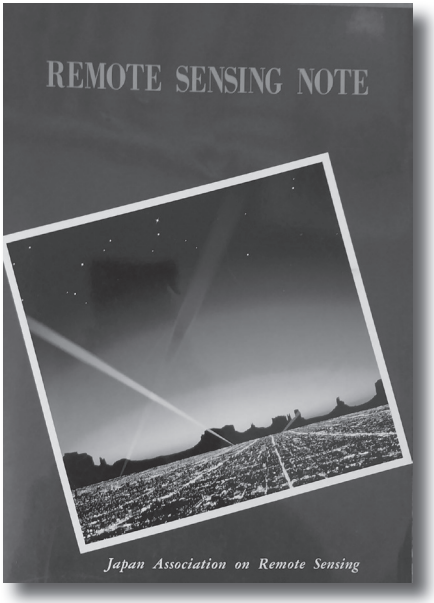
Now at the spring and autumn society meetings, young students and professors are always active making preparation and after that all join in the drinking party. Since I am a senior, I just participated in the drinking party to exchange views with young people. I am truly delighted to see the growth of unity in our Society. Having experienced the crisis of the Society I regarded JSP as my son, and now like my grandson. In fact, students of Professor Chikazu are now filling the important positions of the Society, so it is the period of my grandson. It is gratifying to see Mr. Nakagawa of Shibaura Technical University and Mr. Kunii of Agricultural University, etc. working hard for the Society. My responsibility as senior is to watch out for those who might destroy the Society. I hope to do my best in the role of overseeing the continuation of the Society where good colleagues truly work hard together.

I am now an honorary member having reached the age when I can be quiet, but I still present papers at the spring and

autumn conferences continuously. I learned this from my eight years senior Mr. Araki Harumi who still presents papers even after the age of 80. This is also in response to the request of the office that when seniors make a presentation, it has a very good effect on the young generation.

Mr. Araki is the person who invited me to do research together on earthquake prediction, since he thought that it was possible to use GPS for earthquake prediction. This happened two years after my retirement from Todai, i.e, in 2002. I am obliged to Mr. Araki who convinced me to concentrate on a high accuracy prediction method for the past 20 years. At present, Mr. Araki is over 90 years old and retired from the research on earthquake prediction, but his spirit is still young and always encouraging. At the time he was a senior staff at Asahi Koyo Co. I owed him a lot when I was writing up my dissertation and became Doctor of Engineering. From this relationship although our ages were different, we had the same feeling and kept company as research colleagues. The fact that I could almost complete the earthquake prediction method was due to the contributions of Mr. Araki. To this I offer my sincere gratitude, but I am worried about his recent health issues.


高精度化・高速化・自動化をめざす先端技術
新訂版
サーベイ・ハイテク100選
企画・監修／村井俊治
（東京大学生産技術研究所教授）
社団法人 日本測量協会


REMOTE SENSING NOTE
Japan Association on Remote Sensing

⓫ Establishment of ACRS and the Conferences

In Showa 48 (1973) the international conference on the utilization of satellite data, one year after the launch of Landsat-1, was held at EROS Data Center in Sioux Falls, South Dakota USA, which was the custodian of satellite earth observation data. I was the head of Japanese delegation with the late Professors Sakata and Shimoda also attending. Sioux Falls was a quiet town, so every night we all assembled in a hotel room drinking whisky, while discussing what Japan should do in the future regarding earth observation. At that time, there were some untrustworthy academicians making disgracing comments to newspapers about misleading information extracted from Landsat imagery. For example, there appeared fake news that by photointerpretation of satellite imagery there was a large fault running east-west through the Tokyo area. From my investigation of the infrared band of satellite imagery, since many buildings were concentrated along the Chuo Line stretching from east to west through the Tokyo area, they were the reason for the dark band in the images, claimed erroneously to be a fault.

Then the conclusion was reached that we should study remote sensing thoroughly by setting up a truly worthy research society with me as Secretary General and the late Professor Kato of Tohoku University as President. The society called Japan Association on Remote Sensing (JARS) was thus set up in 1974. Professor Kato

was a quiet professor, with affable kindness, an excellent professor who just kept saying "that is all right." In reality I was entrusted with the management of JARS. Immediately, together with our colleagues, we developed and published a textbook entitled "Principles of Remote Sensing", the first of its kind in Japan. Monthly study meetings were also held.

Once Landsat satellite imagery and digital data became available around the world, there were global level discussions concerning the earth's environment. For example, the speed of destruction of the Amazon tropical forest each year, while the depletion of tropical rain forests could clearly be seen. Likewise in Asia, destruction of tropical forests, desertification, sea and ocean pollution, etc. could be monitored from satellite imagery. At present this is also being used for the analysis of carbon dioxide in the atmosphere, caused by greenhouse gas emissions.

At that time, the most advanced remote sensing research was being carried out at the Willow Run Laboratories of the University of Michigan (briefly called ERIM) USA. Based on military funding a thermal infrared sensor was also being developed. Symposiums on remote sensing were being organized every 18 months. In April 1978 the ERIM Symposium was held in Manila the Philippines where I had the opportunity to liaise with many Asian researchers. In October of the same year with JARS as the focal point, I visited remote sensing agencies of three countries,

i.e., Thailand, Indonesia, and Philippines. At this juncture, many opinions were being expressed that remote sensing conferences should also be organized in Asia. The objectives were to discuss how Asian researchers could apply remote sensing technologies to solve Asian problems.

After overcoming many hurdles and complications, I succeeded in organizing the First Asian Remote Sensing Conference (ACRS) in November 1980 in Bangkok, Thailand together with the great support of Suvit, Director of Remote Sensing Division in Thailand and my good friend Manu. It was necessary to gain government approval to organize an international conference In Thailand. I alone was called to explain the objectives, the importance and the impact, the budget etc. to the Thai government remote sensing coordinating committee meeting. Although Suvit and Manu were also members of the committee, the decision was to be made by more senior people. I enthusiastically presented the importance of organizing this conference and proposed the budget which would be totally borne by Japan. After my explanation, I was told to wait outside the meeting room. I thought that the waiting time was about 10 minutes, but it felt like a lot longer. When I was called back to the meeting room, the Secretary General of NRCT gave the word of acceptance. It was later revealed that Manu had argued fervently in support of my proposal. The First ACRS was inaugurated by the Undersecretary of the Prime Minister's Office, the supervising

organization of NRCT. The presentation to NRCT was supported by automatic slide projection, which was warmly appreciated.

At that time, Bangkok was not well developed, taxis were secondhand cars and the seats might spring out. At this conference I developed the future structure of ACRS. In Asia the most important thing is mutual good friendship, not only in presenting papers, but also the friendly relationship among participants from different countries. I rented the luxurious boat of the Oriental Hotel, a five star plus hotel and invited not only the participants but also their friends and relatives to join the party on the boat free of charge. Normally Thai people would not have an opportunity for such experiences, so there were many friends and relatives attending the party. Dinner was buffet style with unlimited drinks including beer and whisky. The total cost was about 300,000 yen. Thai people enjoyed it very much and joined the Thai dancing with the "Loi Krathong" song. Participants from other countries also joined in the dancing and singing. Everybody enjoyed the party so much and had a feeling that "Asia is one" as I had hoped for. Participants singing and dancing thus became a permanent activity of the welcoming party of succeeding conferences.

At this conference, China proposed to host the next conference. Actually, one year earlier I had visited China without informing the responsible organization in advance of my hope that they would sponsor the next conference, but I did request

cooperation. The invitation this time was deemed as a positive response to my earlier request.

The 2nd ACRS was held in Beijing, China in November 1981. At that time, China had just opened up, but the Chinese people were still dressed in Mao suits and wore Mao caps. There were mostly bicycles on the roads and bus was the main means of transportation. In my opinion, the weakest aspect of Asia lies in its consistent engagement in wars, rather than forming friendly relations to achieve unity amongst nations, and thus limiting progressing that should be achievable. Therefore, I decided on a motto for the Beijing conference, "Friendship First Money After" and I always repeated this at the welcoming address. At that time foreigners could not choose which hotel they stayed in and could not eat at restaurants unless they had a voucher. This was a controlled economy. Participants from abroad therefore stayed at Friendship Hotels in the form of a group tour, based on the concept from the Soviet Union. On the first day of the conference, I arranged a party to welcome Asian participants, each country joined in the singing and dancing thus enjoying the cultural exchange. A tradition was introduced in which a committee considered which countries were awarded first, second and third prizes for their performances.

The welcome party has the purpose of promoting friendship among Asian people. China as host country was so kind as to use

Great Hall of the People as the venue for the dinner party. I was seated next to Fang Yi, Deputy Prime Minister. My secretary, Ms Fujino sang a Japanese song. Later I was told that this was the first time that singing was allowed in the Great Hall. During the conference, representatives from participating Asian countries signed the statutes officially establishing Asian Association on Remote Sensing (AARS) for which I was selected Secretary General. In Asia political intervention is difficult to avoid for Presidents. Therefore, in the statutes there is no position of President. In reality I was the representative of AARS per se. Since its inception until the year 2009 at 30th ACRS in Beijing, I was responsible for organizing the conferences as the head of the organization for 30 years. After that the post was handed over to Professor Cho Kohei of Tokai University. I remained as Chairman of Advisors of AARS.

At 9th ACRS held at Ambassador Hotel in Bangkok, HRH Princess Maha Chakri Sirindhorn graciously presided over the opening ceremony. Since HRH was interested in remote sensing, she was the Keynote Speaker presenting her research paper on application of remote sensing to monitoring of swamp forest in the south of Thailand.

The list of countries where I was responsible for organizing ACRS are as follows (some cities and countries held multiple conferences, so the list is by timeline).

Bangkok (Thailand), Beijing (China), Dhaka (Bangladesh), Colombo (Srilanka), Kathmandu (Nepal), Hyderabad (India), Seoul (Korea), Jakarta (Indonesia), Kuala Lumpur (Malaysia), Guangzhou (China), Ulan Bator (Mongolia), Tehran (Iran), Bangalore (India), Nakhon Ratchasima (Thailand), Manila (Philippines), Hongkong (China), Taipei (Taiwan), Bhusan (Korea), Chiangmai (Thailand), Hanoi (Vietnam). So many cities in Asia were the venues of the conferences. This might be because I was still young and energetic, and it may seem a bit of an exaggeration when some people in Asia called me "Father of Remote Sensing".

Registration fees for the conference Monday to Friday was set quite cheap to enable students and participants from Asia to have more chance to participate, i.e., at around 20% of registration rates in the U.S. or Europe. Lunch and welcome party were included in the registration fee. The dinner meeting of the organizing committee and representatives of each AARS member country were hosted by Japan, and sometimes from my own pocket money. At the welcome party with singing and dancing by representatives from each member country, there was a referee to consider winners of prize money, first prize ($300), second prize ($200) and third prize ($100) from my own pocket money. The welcome party was much appreciated since it was the activity revealing arts and cultures of Asian countries.

The most difficult problem to manage was that of Taiwan. Since China would not accept the name "China Taipei" being used, ACRS adopted this naming without recognizing it as country, just a region in the same way as Hong Kong was recognized.

Besides Thailand and China, some difficulties that I encountered in organizing ACRS may be summarized as follows:

In Dhaka of Bangladesh, the venue of 3rd ACRS, as soon as we stepped out of the airport, foreign visitors were swamped by many beggars. When reaching the waiting bus, windows were knocked asking for money. When leaving the hotel, a beggar who was a mother cuddling a child would approach us and 4-5 groups of the same type people would follow us, so each day it was a hectic moment before getting on the bus.

The most important remote sensing application in Bangladesh was the survey of damaged area caused by flooding of Brahmaputra River, about one third of the country. The more surprising result was that after flooding there were struggles for ownership of land for farming along the riverbank for several kilometers wide, since this was a fertile land with no owner. Those who arrived first were the winners and occupied the land. But when the next rainy season comes there might be flooding, and they might lose their lives. Even though they risk their lives, the family was more important. Satellite imagery depicts the land use pattern but also reflects some sad facts.

There was a special experience at the 4th ACRS in Colombo of Sri Lanka. At that time there was an ongoing civil war between the Tamils and Singhalese. I was travelling alone and after leaving the airport and on my way to the venue of the conference, which was a resort hotel in the suburbs, I was stopped for body search 6 times. The soldiers took my ballpen, my necktie pin and other possessions. On the way I saw some Singhalese shops burned out by aggressive Tamils. During British colonization, the British put up resistances and brought in Tamils from India to work in tea plantations.

But at the hotel, the venue of the conference, it was like another world. The conference and the party went on joyfully. After the conference, while waiting several days for the next flight home, Mr. Sarat, staff of Survey General Mr.Nanayakkara, representing the host organization, and who contributed most to the organization of the conference, came with his wife and a small daughter. He took me to visit the pool of the most expensive resort hotel. Usually, only white Europeans or Americans could afford to stay at high end hotels. His wife and daughter were very excited to visit such an excellent swimming pool. After that I treated them to lunch at this hotel, giving them a good experience. After a long absence, I met Sarat and his daughter who had grown up to become an adult, and they said that the event would remain in their memory for a long time.

As for 5th ACRS at Kathmandu in Nepal, an unforeseen event occurred. Most foreign participants would travel via Calcutta but the airplane I was on developed a technical problem necessitating an overnight stop in Calcutta. The conference was opened by the King of Nepal but without attendance of many delayed foreign participants who arrived after the opening. A big problem occurred after the Nepal conference, when it was planned to travel by bus from Kathmandu to Pokara, a tourist location not quite yet developed. Every morning the villagers would use the courtyard to relieve themselves since there was no toilet in the house. Consequently underground water might have been affected. Several people in the party contracted diarrhea, some even had to be admitted to hospital with typhoid fever. As for myself, at the beginning the symptoms were minor, but after returning to Japan, diarrhea continued for one month, my body weight dropped from 80 kg to only 65 kg. When I visited a clinic in Roppongi, the doctor just sent me home saying that such a serious disease was incurable. Then, I decided not to go to see the doctor again, except for problems with my eyes, teeth, or ears. I was steadfast in not taking medicine. I recovered from the diarrhea, but my body weight did not return to normal. Those muscles developed from rowing training all disappeared and my body weight did not increase afterwards.

6th ACRS in Hyderabad, India was held according to Indian style. The satellite remote sensing center was located in this city,

so it was very appropriate as a conference venue. At the opening ceremony girls dressed in traditional costumes came to scatter beautiful flowers in front of the Director General, host of the event and me as Secretary General of ACRS. The conference went on normally, but Indians were fond of arguments, therefore Q&A always took more than the allotted time. Free lunches were served as Indian food with Indian people using their right hand fingers to take food, but spoons were also prepared for foreigners. Lunch was not served in the room but in a very big tent nicely decorated like as in the circus. I had requested the host to bring traditional Indian culture instead of western culture to the conference, with the thought that getting in touch with different cultures and mutually accepting other countries' traditions in Asia was important and I am delighted to see that this happened.

Thereafter the meeting of ACRS was organized according to the above described arrangements. I would like to mention some special impressions of ACRS:

13th ACRS was held in Ulan Bator of Mongolia in 1992 with my friend, Mr. Sandaar a Mongolian as the host. After World War II, this country became a tributary state of the Soviet Union but had since gained independence. The conference was held in early winter, with very cold temperatures, around minus 10 degree Celsius. Japanese could stand this but for Thais or Indonesian people coming from tropical countries this was quite

a problem. Buildings looked Russian in style making one think that this was a city in Russia. But outside the city, people lived in tents called Yurts (in Japan it was known as Pao).

The elevator of the hotel was broken so I had to go up and down by the stairs. Almost no vegetables were available for food, just meat. Incidentally, HRH Princess Maha Chakri Sirindhorn of Thailand was invited to visit Ulan Bator at the same time and came to the welcome party. I used to have an audience with HRH, so HRH was delighted to attend the party, but Thai participants were very excited. The Minister of Mongolia also attended the party and joined in singing the "Loi Krathong" song and Thai dance with HRH and other people. Everybody was happy entertaining. In this conference, together with Professor Armin Gruen of Switzerland in the name of White Elephant Club (WEC), we designed and arranged the lectures about how to write a thesis, how to write a research proposal requesting research funding, and how to present the thesis or dissertation. This drew a big audience and received very good response. Thereafter such a session has been organized in every ACRS.

14th ACRS was held in Tehran, Iran in 1993. Iran is a Muslim country and very strict in keeping old traditional customs. Western countries accuse Iran as a country of inequality for women. I happened to get in touch with an Iranian involved in remote sensing enabling me to organize ACRS in Tehran. As soon as

the plane entered Iranian air space, all women passengers even foreigners had to wear a veil. The opening ceremony began with a recital of Al Koran with loud voice like a song. Men and women sat separately. At that time, tennis was a favorite sport. Ms Fujino, my secretary would like to play with me at the tennis court of the hotel, but that was stopped because men and woman could not play together. Since it was hot outside, I wore short pants and as I walked past the lobby, I was told to wear long pants. Besides, there were other annoying customs. But I considered it as good experience to learn about the strict regulations of Islam. No alcohol was allowed at the party resulting in lack of entertainment but the conference went well with good impressions received from all participants. I had the chance to collect such experiences which demonstrate that in Asia there were dissimilar cultures.

After the conference we visited Isfahan the old capital, a beautiful city with Imam Mosque, the wonderful 33 Arch Bridge, the only Persian architecture in the world. I was surprised that we were allowed to go inside the mosque. We visited the market that was like a maze but very interesting, with a feeling of going back to mediaeval times. Iranian tea and bread were very delicious. Even though there might be some inconveniences arising from difference in customs and culture, it was a good outcome to have organized the conference in Tehran.

20th ACRS was held in Hong Kong in 1999. The Chinese people felt relaxed because Hong Kong had just been returned to China shortly before the conference. Chinese style of expression was quite evident. Some important figures came from the mainland to participate. The conference ran smoothly almost to the end. The welcome party was held at a luxurious restaurant with delicious food. However, there happened a big problem on the last day. It was decided to hold the next conference in Taiwan in the coming year. As the video introducing the venue was shown, there appeared the word "ROC" and Blue Sky White Sun Flag (Taiwan National Flag). Chinese delegation immediately rose and protested to have the video cut off. I apologized to the Taiwan delegation but showing these details was not acceptable. The Chinese delegation asked this matter to be put on hold. I happened to have a scheduled flight to Beijing from Hong Kong, so I asked to discuss the matter there. In Beijing I express my regret again and promised to be careful not to let such things happen again. The matter thus ended peacefully, but in the proceedings some papers still had the name or marking of ROC, so new proceedings had to be printed.

25th ACRS was held in Chiangmai, Thailand in 2004 at the Sheraton Hotel. HRH Princess Maha Chakri Sirindhorn graciously chaired the opening ceremony. Since it was the 25th anniversary of ACRS there were many participants totaling 750 people, including 350 Thai participants. Several ISPRS Directors and their wives also

attended including Taeko, my wife who attended for the first time. Wives of friends from western countries acquainted with international meetings also joined with Taeko for a study tour of Chiangmai. Since then, directors of ISPRS have participated in ACRS every year, which is evidence that activities in Asia cannot be overlooked. There was a party held to celebrate my 65 birthday. Ordinary Members of AARS including countries and regions reached 28. On this occasion HRH Princess Maha Chakri Sirindhorn bestowed Boon Indrambarya Medal to more than 10 people who contributed to the advancement of remote sensing in Asia. As for myself and Dr. Kaew Nualchawee, we both received Boon Indrambarya Medals for the first time from HRH during 16th ACRS at Nakhon Ratchasima in 1995.

Another delightful outcome was the printing of the book entitled "Contribution of Shunji Murai to AARS" with Dr. Rathore as the focal point in the preparation and distributed to members of AARS. In Thailand, Loi Krathong festival is held on the full moon night of 12th month of lunar calendar. Krathong is a banana leaf floating vessel and candle is put inside and lit before letting it float on the river or a pond. I also joined in this festival.

It was heartening to see Mr. Manu and Professor A.J. Chen of Taiwan who were great colleagues, to overcome many obstacles that had existed from the beginning, to also join the conference. It was the great support of Mr. Manu which made it possible to

organize the 1st ACRS in Bangkok 25 years ago. Professor A.J. Chen was instrumental in the negotiation of difficult international problem, i.e., "One China Policy" with discreet prudency, resulting in both sides as ordinary members.

30th ACRS was held in Beijing, China in 2009. I was already 70 years old and had been responsible as Secretary General in organizing ACRS for 30 years. Therefore, I stepped back, and my successor was Professor Cho Kohei of Tokai University. The official appointment was announced with two deputy Secretaries General, one from China and one from Vietnam for good balance between China, India and neighboring countries. The selection of Professor Cho, a Japanese not involved in politics was considered most appropriate. In this conference "Murai Award" was set up to be presented to the best research paper in the conference.

At the opening ceremony, I delivered a special lecture entitled "History of 30 years of ACRS" and presented Honorary Membership to those seniors who had contributed greatly to the objectives of ACRS. At the dinner party after a grand opening ceremony on the first day, there was a show of aerobics and Chinese ancient martial art. I was surprised to learn that this was also the show for my 70-year birthday. I had thought that I had been struggling all alone but realized that people around me had been supporting me all through.

35th ACRS was held in Naypyidaw of Myanmar in 2014 after the country was changed to the government under military rule and the capital was moved from Yangon to Naypyidaw for security reasons. We were told that there were direct flights from Bangkok to Naypyidaw but the flight was cancelled. We had to fly to Yangon and then take a taxi. After negotiations the taxi fare was settled at $150, with time for toilet and dinner, so after five and a half hours and a long search we finally arrived at the hotel at 8.30 p.m. The Hotel was in the middle of the field with nothing around.

At the opening ceremony, five responsible ministers in military uniform came to participate. After that I was the first speaker but before I took the podium, one staff told me that "30 minutes previously allotted time please make it in 15 minutes since there are military officers in the room." I had to comply, presenting my new method of earthquake prediction using GPS and the response was good, since it was easy to understand.

Since there was nothing around the hotel except taking a taxi to have dinner at some restaurant, nothing enjoyable was available. From the rather quiet atmosphere ruled by the military, the conference was inevitable lackluster. Anyway, the contributions by Myanmar colleagues were much appreciated.

After the conference, together with Professor Armin Gruen from Switzerland and Professor Clive from Australia, we hired a taxi at $250 to take us to Yangon. On the way we visited Pegu, ancient

city and the reclining Buddha. Lunch was fried rice noodle and quite delicious. In Yangon, Clive booked in at a luxurious hotel near the lake, which was very enjoyable. However, it was not enjoyable to stay in a military country. At 9pm someone knocked on my door and called me out to drink vodka with 3 people even though they knew I normally slept at 9pm, saying that we should celebrate before departing for home the next day. The next morning, I was still hung over but was happy to leave Myanmar, a country full of excitement. This was factual happenings in a part of Asia and as an Asian, to experience this, was a good thing.

40th ACRS was held in Taejon of Korea in 2019. Since Typhoon No19 had just passed, along the seashore several ships were seen to have been swept aground. I could not book the air ticket in time, so I missed the opening ceremony on the first day. In this conference, the Chinese delegation brought up the political problem about the name of Taiwan for consideration, posing some uneasy feelings. In the Olympics the official name of Taiwan is China Taipei but the Chinese said that this name could not be used internationally since Taiwan was not a country, just a region. In the opening speech, I would call the delegate of each country as the national delegate, but this would not be acceptable since this did not include Taiwan and Hong Kong, but they were ordinary members. After negotiations with the Chinese government, finally it was agreed to use the name as "Chinese Taipei". From this agreement Mr. Fan Zhai of Taiwan was appointed as Deputy

Secretary General, and for good balance Mr. Gu Chinghua of China and Mr. Sameer of India were also appointed as Deputy Secretaries General. This enabled good stability for the Secretariat under Professor Cho Kohei. In the academic world the political intervention is undesirable, but it is an unavoidable problem in Asia. The fact that agreement was achieved to build mutual trust between China and Taiwan for a long time was a very good outcome.

Near the hotel, there was a stream with a nice walkway, so I enjoyed morning walks every day. During the conference, together with Professor Cho, Ms. Fujino, Professor Armin of Switzerland, Professor Bruce of Australia and his wife Jan, and Mr. Oke my previous student from Sweden, we went to enjoy Korean food called "Sapporo".

The conferences do not just offer the chances to present papers, but also provided the opportunity to meet people. In the past during my younger age, when attending international conferences or going to the party alone, I felt quite lonesome. So, if I met someone who came to the meeting or the party alone, I would go and say hello and talk to him/her. Just a few words might bring us closer together, especially Bhutanese or Myanmese who came alone would receive my special attention.

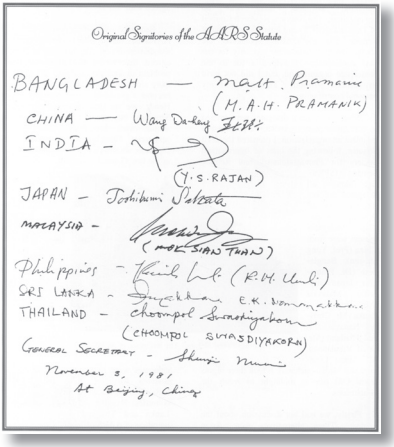
At the closing ceremony "Contributor Award" was presented to those who had hitherto made contributions to ACRS, totaling

38 people. I handed over the certificates to everyone with words of appreciation. It was not just I who had worked hard, but success came from the support of many people. I was already eighty years old and happy to see many successors. The conference achieved its goals due to the strong determination of my colleague Mr. Kim who was open minded and had a sense of humor, and a senior like me, with a lot of admirers. It is heartening to see such people helping to enrich 40 years of ACRS.

Even though I enjoyed participating in ACRS every year it is regrettable that COVID-19 made it necessary to organize in the form of on-line instead of on-site meeting.

"A warm hand shake"

Prof. Shunji Murai (right) with Mr. Fang Yi, Vice Prime Minister, China (left) and Prof. Wang Daheng, Conference Chairman (centre) at Welcome Party, (People's Great Hall) 2nd ACRS Beijing, China, 1981



Original Signatories of the ACRS Statute

BANGLADESH — Majit. Pramanik (M. A. H. PRAMANIK)

CHINA — Wang Daheng

INDIA — (Y. S. RAJAN)

JAPAN — Toshikazu Sekioka

MALAYSIA — (MOK SIAN THAM)

Philippines — (R. M. Umali)

SRI LANKA — E. K. Wimalasekara

THAILAND — Chompol Suwasdiyakorn (CHOMPOL SUWASDIYAKORN)

General Secretary — Shunji Murai

November 3, 1981
At Beijing, China

Chinese participants of the second ACRS in a group photo session.

Thai participants at 2nd ACRS in Beijing.

The Honorable Minister of Mongolia and Her Royal Highness Princess Sirindhorn of Thailand at the Opening Session with other dignitaries.

Professor Shunji Murai addressing the opening session of the 14th ACRS at Tehran, Islamic Republic of Iran.

The Honourable Datuk Law Hieng Ding, Minister of Science, Technology and the Environment at the Opening Session of the 18th ACRS in Kuala Lumpur.

Mr. Virgilio S. Santos choreographing the opening session of the 19th ACRS in Manila.

Opening Session of the Fifth ACRS

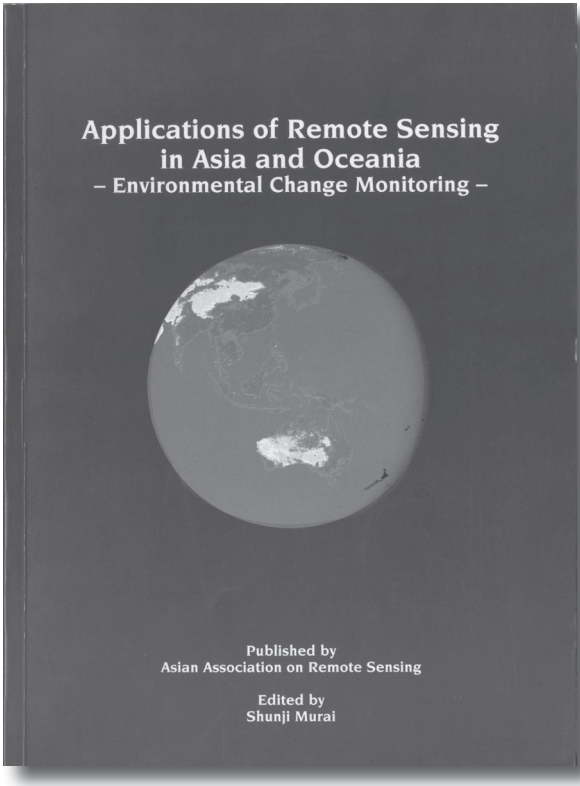
A group of participants at the 4th ACRS received by the Organizing Committee upon arrival at Bandernaike Air Port in Colombo.

Professor Arthur C Clarke discussing with late Mr. Nanayakkara, Surveyor General & Mr. Herut, Deputy Surveyor General during the fourth ACRS.

Late Cristopher Nanayakkra assisting H.E. the President in lighting the ceremonial lamp at the opening ceremony.


THE 8TH ASIAN CONFERENCE ON REMOTE SENSING
OCTOBER 22-27, 1987 JAKARTA - INDONESIA


THE 8TH ASIAN CONFERENCE ON REMOTE SENSING
OCTOBER 22-27,
JAKARTA - INDONESIA

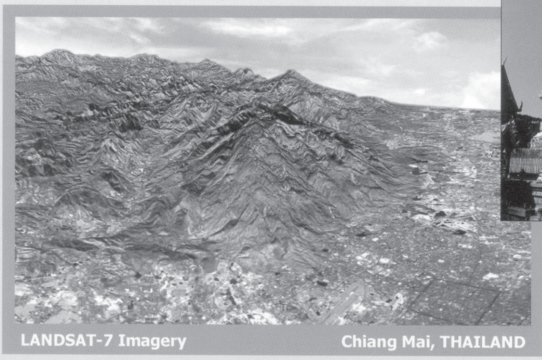

Applications of Remote Sensing
in Asia and Oceania
– Environmental Change Monitoring –
Published by
Asian Association on Remote Sensing
Edited by
Shunji Murai

25th ACRS

Asian Conference on Remote Sensing

2nd Announcement
Call for Papers

22 - 26 November 2004



LANDSAT-7 Imagery Chiang Mai, THAILAND

DOI SUTHEP

25th ACRS organized by

- Asian Association on Remote Sensing
- Geo-Informatics and Space Technology Development Agency (Public Organization)

1st ASC organized by

- Geo-Informatics and Space Technology Development Agency (Public Organization)
- International Institute for Asian Studies
- International Institute for Geo-Information Science and Earth Observation (ITC) Netherlands

Supported by

Remote Sensing and GIS Association of Thailand

⓬ ISPRS Congress and Director Period

In 1972 the ISP (International Society for Photogrammetry) Congress was held in in Ottawa, Canada. It was my first attendance at such conference as secretary to Professor Maruyasu. I had since been attending subsequent Congresses and in 1992 I was elected as the first Asian ISPRS President of the then ISPRS (International Society for Photogrammetry and Remote Sensing). It can be said that during the period of 20 years, not only I, but also Japan and the whole world were trending towards research being undertaken in academia.

During the 1972 ISP Congress in Ottawa, Professor Maruyasu was elected 2nd Vice President which was a significant achievement for Lecturer Oshima, (later transferred to be Professor of Hosei University). At that time, to be elected 2nd Vice President of ISP implied that the country of that person would propose in 4 years' time to be a candidate to host the next ISP Congress. This meant that Japan should host the Congress in 1980. This was an unwritten customary procedure. However, the oil shock occurred making it difficult to receive financial support from companies. Therefore, at the 1976 Congress in Helsinki Finland, Japan withdrew its candidacy to hold the ISP Congress in 1980, which violated a longstanding ISP tradition. The Germany delegation stated that it would not allow such a situation, which might threaten the existence of ISP. So, immediate negotiations were carried out

with the German government and a budget was allocated for the hosting of the 1980 Congress in Germany. The difficulty in this matter was elaborated by Professor Fritz Ackermann world renown photogrammetrist, during the welcome party on the Congress opening day in Hamburg, Germany with comments criticizing Japan. I was at the party but was not aware of the background, so I felt very ashamed, left the party and went back to my hotel.

During the ISP Congress in Hamburg, Germany in 1980, the name of the Society was changed to ISPRS (International Society for Photogrammetry and Remote Sensing), to demonstrate its positive involvement of the Society in the recently emerged field of remote sensing. In Japan a new Japan Society for Remote Sensing was established by Professor Maruyasu who left JSP. In Europe and the United States there were also such movements, some merged with the existing society. For ISPRS, photogrammetry was integrated with remote sensing. Since JSP remained the official Japanese representative in ISPRS, its name was changed to JSPRS to conform with the ISPRS name. There were diverse movements around the world to incorporate the field of remote sensing.

Professor Nakamura, my senior said to me “I will support you. At the ISPRS Congress in Rio de Janeiro in Brazil in 1984, please propose to host ISPRS in Kyoto in 1988.” It immediately dawned on me the meaning of the fact that in Hamburg Congress

Professor Nakamura had proposed to host the congress in Tokyo in 1984, but was defeated by Brazil, resulting in a lack of trust of Japan by ISPRS. If such conditions persisted, there might be no future for Japan in ISPRS. For me to propose candidature for the 1988 Congress was a major stake for Japanese society.

In the ISPRS General Assembly in Rio de Janeiro in Brazil in 1984, besides Japan, countries proposing to host the congress in 1988 were United States, Australia and India, all were formidable competitors. Speeches for proposing to host the Congress were set at 15 minutes, so I put together the content of my speech in 15 slides, such as "What is the meaning of holding the Congress in Japan of Asia?" "Why it should be Kyoto?", "What is the result and advantage of holding the Congress in Japan?", "How is the progress of photogrammetry and remote sensing research and development in Japan?", "What are lodging and other expenses in Kyoto?" etc. I spoke in English without looking at the memo. The last slide showed a Japanese lady in kimono smiling while saying "Welcome."

Countries proposing to host the Congress had planned pre-voting parties inviting representatives of voting countries. For the dinner party, the United States and Australia had already decided to hold such an event, and invitation cards had been distributed. With no choice, I arranged a lunch party during the meeting at an Italian restaurant by providing a big bus for

the transportation between the Congress venue and the restaurant. Towards the end of the lunch party, Dr. Fred Doyle of United States who was ISPRS President at that time, even though United States was also the candidate, said to representatives of each country that "I support Japan". Fred was my mentor and also my teacher who taught me how to build up leadership in the world.

The result of voting showed Japan beating strong competitors like United States and Australia. I became Congress Director leading up to the next Congress and one of six members of the ISPRS Council.

The Congress had been assigned to Japan, but fund-raising opportunities had not been determined. The quotations from professional event organizers of international meetings were very high, and beyond our ability to accept. We therefore decided to organize the event ourselves, by requesting cooperation from professors and students of several universities. The most important helpers were Professor Sakata and Professor Shimoda of Tokai University. Of course, staff and students of the Murai Lab joined the volunteers in planning and drafting the program, the commercial exhibition, entertainment activities and study tours, which were all organized by ourselves. Mr. Ueda, director of Kyoto International Convention Center, the venue of the Congress kindly advised how to limit expenses and provided

valuable information about the management of international meetings. I take this opportunity to thank him sincerely.

For fund raising, I went with Professor Nakamura to see top management of related commercial companies and requested donations. The Ministry of Finance allowed us to receive tax exempt donations up to a maximum amount of 30 million yen. Even so we were several tens of millions of yen short. The most expensive item at the Congress was simultaneous interpretations into 3 languages, i.e. English, German and French. The quotation from the companies providing such services was almost 100 million yen. Fortunately, I met an Australian who worked in simultaneous interpretation for ISPRS in foreign countries. His quotation for the Kyoto Congress was 20 million yen, only about 20% of the price of Japanese companies, and this included travelling and hotel expenses. With this contract in place, the fundraising was achieved.

At that time, registrations, receipt of registration fees, management of income and expenditure, receipt of papers, handling of events etc. and all the office work, were done in analog form. However, we received cooperation from professors and staff of Murai Lab plus Sakata Lab and Shimoda Lab of Tokai University, including the students, to develop computer programs and testing for digital format. Normally, international meetings would be entrusted to the companies called international meeting

organizers, but their charges were very high and not affordable.

The commercial exhibition was expected to be the highest source of income, but it did not progress as we had hoped. However, towards the Congress commencement, a company related to remote sensing from France booked a large exhibition space, thus eliminating our concerns about fund raising, which was an unforgettable occurrence. I planned the entertainment events in a stingy Japanese style. I happened to know a neighbor who was the head of a drum beating group in Hachioji. I asked him to come on the 2nd day of the Congress with his group of 23 people to show off Japanese drum beating. It was in early July, still in the rainy season, so rain was a worry but luckily the weather was fine. The drum beating was shown outdoors in the open space and received a big applause and was greatly appreciated by many foreign participants. All the expenses including travel from Tokyo, remuneration, equipment, transport expenses, and lodging amounted to only 500,000 yen.

The 10-day Congress was held from July 1 to 10. I chose this period even though it was still in the rainy season because it was the period of cheapest rent at meeting venues and hotels. Professor Nakamura who was born in Kyoto said that "Murai, why do you plan to hold the congress in the rainy season?" It was amazing that during these 10 days the weather was fine except for the last day which was cloudy. Every morning I would go to the shrine

near Takaraga Lake close to the meeting venue and pray enthusiastically "Please give us good weather for today and tomorrow" and dropped a newly circulated 500-yen coin in the donation box. It seemed that my earnest praying was answered.

Of most concern was how many foreign participants would arrive, but it turned out that there were more than 2,800 people, many more than I had expected. We found out that among participants from Europe and America, many had come to Japan for the first time. There were 800 Japanese participants, which was probably because of the good reputation of Kyoto. Taeko, my wife took the wives of ISPRS Council, who had previously met at ISPRS Congresses, to join a study tour of Kyoto, including Koto musical instruments and other Japanese culture. Japan was quite safe and clean, and the temples and shrines in Kyoto are especially exquisite. In Europe or United States, opening ceremonies were accompanied by violin or piano music but I showed Shakuhachi (bamboo clarinet) and Koto (Japanese harp).

My wife Taeko organized Obara style Ikebana flower arrangement for wives of foreign participants. Great interest was shown by the husbands of the wives who made their own flower arrangements. Bon odori dressed in bathing suits were also shown. Academic presentations were well attended and were considered successful. Wives of the participants were also

invited to visit Japanese houses which was well received. If the wives of the participants were happy, it was deemed that the conference had been successful, which indeed was what Mr. Ueda of Kyoto International Convention Center said. Therefore, it can be said that ISPRS in Kyoto was a success. After final accounting, it was found out that there was a profit of 50 million yen which became an important source of funding for the management of future JSP activities.

At the General Assembly during ISPRS Congress, I was asked to be Secretary General of ISPRS which I accepted. I was 48 years old at that time and had to be responsible for very strict office work in a western system for four consecutive years. Secretary General is the position next to President, not the Vice President, and consequently was tasked with the management of ISPRS, e.g. scheduling and procedures of activities, including office work such as correspondence with members. When Dr. Kennert Torlegard of Sweden handed over the responsibility to me, I was surprised to see more than 20 volumes of neatly arranged files and had to request the cooperation of Ms. Fujino, my secretary, to carry out the work. Experiences gained in the difficult task of the Secretary General were very useful for my later research management. Moreover, this assisted me in the management of various ISPRS technical commissions. The task of Secretary General was a very difficult time for me. At that time, there was no e-mail, foreign correspondence had to be by paper and mail.

Letters sent annually amounted to about 300, averaging one per day. My quick office management is now the result of this 4-years' experience.

Having the experience of Secretary General, I gradually learned about the small details of ISPRS. If the Statutes and Bylaws were not constantly consulted, the correct answer to questions about the operations of ISPRS could not be given. The handling of international matters must always be based on adherence to the Statutes and Bylaws. I had to regularly consult with the President for mutual consent and had to coordinate with other Council members and Chairmen of Technical Commissions all the time.

After the hard work of 4 years as Secretary General had almost come to an end, in early 1992 there was a meeting of the ISPRS Council. At the meeting former president, Professor Gottfried Konecny proposed to me that "Shunji, please accept the next presidency". I was surprised since I was just relieved from the busy work of Secretary General. Of course, according to the customs, President must be elected by the General Assembly, but in actual practice, this would be approved as proposed by the Council without balloting. Other Council members also proposed my name after evaluating the success of Kyoto Congress and smooth handling of office work as Secretary General.

At the ISPRS Congress in Washington, D.C. in 1992, the ISPRS General Assembly of ISPRS elected me as the first ISPRS President from Asia. I was 52 years old at the time. On the stage, I was presented with the President's gold chain on my shoulders which was magnificent and heavy (see the picture on the front cover). At the Rome Olympics we were defeated in the preliminary round and hence did not deserve a gold medal. At that moment I decided to win a gold medal in another field. So, I was overjoyed when this was realized 32 years after the Olympics.

The most important activity during my presidency was the forward-looking strategy planning meeting. I thought about what had made western people become world leaders for several centuries. From this meeting I learned that the answer was the building of strategies and world leading systems. Japanese people used only tactical methods but no strategies. As is often said, a tactical method was the technique used by a person to win over an opponent, whereas a strategy was the planning of fighting to achieve ultimate victory for a nation, even though many people had to be sacrificed. The outcome of the strategy was victory. In this meeting, the Council together with a facilitator Professor Konecny, former ISPRS President were tasked with developing the strategy. The meeting took 3 days at a quiet location outside Washington D.C. The first day was spent in reviewing the mission of the organization, that is, to improve the mission statement written in the Statutes and Bylaws of

the Society, which should be modified to comply with the change of time and technology. The first day was used in the discussion of opinions presented by the six Council members. Everybody had to give their own opinions and if there was disagreement with these opinions the facilitator would arrange a suitable debate. If the different opinions still persisted, voting was used to decide on the issue. On the following day, the modified mission was used to define about 8 topics which should be discussed further. Everybody must defend each topic that was considered important. There was no room for taking control of an argument and this was called positive participation, being the duty of all the Council. After lengthy debate, the topics were summarized to just over ten. After that, priorities of each topic were decided by voting. Only eight highest priority topics were selected. During voting, each Director had to sign his own sheet. The last day was used to plan and set up the procedures of operations of the selected topics. From the participation in the strategy meeting this time I realized why western society had become the world leader. At the same time, I was aware that no strategies had been developed by Japanese people. The strategy meeting, therefore, was the biggest learning experience from my involvement on the Council of ISPRS for many years.

The most important memory during my tenure as President was the 1996 ISPRS Congress held at Hapsburg Palace in Vienna, Austria. At the opening ceremony, while wearing the ISPRS gold

chain I made a speech, walked with Taeko my wife on the red carpet from the lobby up staircase to the meeting room and we were invited to sit in the front row. After my speech, Dr. Frederic Doyle, from the United States, former President, said to me that "Shunji, well done" and he also spoke warmly to Taeko. Hearing the compliments from my mentor, Fred Doyle, gave me the feeling that all the past arduous work had been worthwhile, I was 57 at that time.

After the Presidency, I assumed the position of 1st Vice President, in the capacity of advisor. At the Amsterdam Congress in Netherland in 2000, I was elected Honorary Member. The number of ISPRS Honorary Members is limited to no more than 7 living individuals.

Then, together with my close friend who had assisted me as the 2nd Vice President when I was President of ISPRS, i.e., Professor Armin Gruen, called on those senior people who had been active in ISPRS to set up White Elephant Club (WEC) and join in a party at every Congress. Moreover, at each ACRS, in cooperation with Professor Armin Gruen was the provision of training workshops, called WEC sessions, on thesis writing, how to present papers in the conference and how to apply for research grants.

It was through the blessing of two mentors that I could be active in ISPRS. As mentioned before, they were Dr. Fred Doyle of

the United States and Professor Gottfried Konecny of Germany. From Fred I was taught what are the characteristics of a good leader. He taught me that leaders are those who can make difficult decisions. And Gottfried Konecny taught me that only 'elephants' (meaning people who work positively) can build an organization.

Shunji Murai and Karl Kraus at the Reception by the Mayor of Vienna in the Town Hall

13 My Model for Post-retirement Activities

On March 31, 2000 I retired from the position of Professor of Todai. I was 60 years old and had been working at IIS of Todai since 1966, a total of 34 years. Normally after retirement some people would consider finding a new job or just remain idle. But I did not have time to think about that. At the time, I was 1st Vice President of ISPRS and must prepare for the coming Congress in July 2000 and I had to make inspections of facilities in Spain and Turkey, personnel of which were proposing to host the ISPRS Congress in 2004, and my itinerary included travel to attend an ISPRS Council meeting in Hungary, which was just one day after my retirement on April 1. Most Todai professors after retirement would become professors of private universities to give lectures, but I did not want to become such a professor. Before retirement I was invited to be advisor of Kokusai Kogyo Co.Ltd. dealing in photogrammetry. Income from this posed no problem for my living expenses. After returning from the overseas trip, several companies phoned me asking "Professor, if you have some time, please come to be our advisor." The job of the advisor was the development of future desirable technology for the company and the development of products by mutual consultation with the young staff of the company once a month, which was what I wanted to do. Therefore, I accepted the offers, resulting in a monthly income that was more than my salary before retirement.

Consultation with the companies where I was the advisor mostly centered on the consideration of new technology development and therefore was interesting. After consultation, together with the staff, we went to have a drinking party, American share style. During the party I could get to know the real characteristics of the staff, which was important. There were many cases whereby knowledge derived from the consultation led to the application of patents. As such, good evaluation was received from the companies leading to my long continuous relationship as an advisor. Besides keeping commercial matters confidential, other information was quite free for me to receive.

In July 2000 ISPRS Congress was convened in Amsterdam in the Netherlands. Professor Klaas Beek (deceased) was the Congress Director. He was Rector of ITC (education institute for students from developing countries) and my close friend. After my term as ISPRS President was completed, he proposed that I should become an honorary member of ITC. At this juncture, I had served ISPRS smoothly as a director for 16 years. At the general meeting of the Congress, I was proposed and elected as honorary member of ISPRS. At that time, my close friend, Professor Armin Gruen who was a Professor at ETH Zurich, Switzerland proposed for me to receive an honorary doctorate degree at ETH and I duly accepted. In the past, only one other person had been chosen for an honorary doctorate in the field of Professor Gruen during a span of 50 to 100 years. ETH was one of a few European

universities which produced more than 30 Nobel laureates. Armin Gruen asked me and Taeko my wife, to dress Haori (Japanese tuxedo) and Hakama (Japanese trousers/skirts) at the ceremony which was my first experience. The above two rewards were bestowed to those having widely accredited contribution in the development of remote sensing technology centered on advanced countries in Europe and United States and including Asia. I was very happy to be the first ISPRS from Asia with high appraisal of my achievement.

I was Congress Director, Secretary General, President and 1st Vice President of ISPRS for a span of 16 years. It had been a hard job but I also gain a huge amount of experience, especially in the context of working style and the way of thinking of western society centered around Europe and United States. Western society would debate logically and in detail and decide on the best solution without consideration of social status or position. Everybody gives their opinion openly. If no conclusion is drawn, voting is used to decide on the issue. This is the starting point of democracy. Japanese people should learn accordingly.

In 2002 when I was 62 years old, i.e., two years after retirement, a major event occurred which had a great bearing on my life after retirement. Dr. Araki Harumi, Executive Director of Asahi Aerial Marine Co.Ltd. said that GPS could probably be used to predict earthquakes and asked me to join him in doing

research on this topic. I hesitated at first because earthquakes were not my line of expertise, but GPS was within my expertise, so I accepted the invitation. Details about the research on earthquake prediction will be described in Chapter 14.

My retirement allowance of 40 million yen was spent unexpectedly. During the period of bringing up my two sons, instead of telling them to study hard, I took the policy of enabling them to enjoy themselves as they liked in the mountains, along the river or seashore. When we stayed at the hotel, my little devil of sons would run around the lobby and often broke glass cups while eating. We used to rent some resorts, but they were expensive and not comfortable. So, after retirement our dream was to buy a resort house for the children to run around the house freely. Our sons were grown up, but we would like to provide running space for our grandchildren. From the introduction of our acquaintance, we went to look around resort houses in Karuizawa. Why Karuizawa? When we went to stay at the resort, our daughters-in-law did not like to prepare food or do house chores; they preferred to have food served at a hotel. After talking to Taeko, she said that if it was Karuizawa, a popular place for women, daughters-in-law should come to spend time here. A real estate agent took us to see 5 or 6 ready-built resort houses, one of them was situated on a small hill painted in pink and looked stylish. The agent happened to forget to bring the key, so we did not enter to see the inside. Previously I had a co-own resort

house with my friends, but there were many trees around the house, so I knew the weak point of resort houses was moisture. Trees were important but not too many. The house we saw was situated on a small hill so there should be no problem with moisture. We decided to buy the house on the spot, without seeing inside. Later our eldest son Kenji complained that it was not prudent to buy an expensive house without seeing the inside. The price of the house was the same amount as my retirement allowance, i.e., 40 million yen.

It was later known that this house was built one year ago but the owner did not move in and had to sell it because his company went bankrupt. It looked like a new house. My grandson, the son of my eldest son, was sick with asthma while still a baby. So, in summer, my daughter-in-law Mihoko took him to receive fresh air at the resort house. Kakeru, my grandson recovered from asthma as he grew up. Therefore, purchasing the resort was a rewarding investment. At present the occupancy rate is very high. Most people like it. Recently a heater was installed to make it comfortable even in winter. Since it was not my style to keep the retirement allowance for spending in old age, this was a good way of using the money.

Upon retirement, Taeko said that she would like to travel with a backpack to Hokkaido. When she was studying at school, she joined the “Wonderful Girl” group, so she would like to

enjoy a walking tour in Hokkaido. We rented bicycles and rode to Sarobetsu Marshland Flower Garden and walked in the marshland. We took the ferry to Rebunjima and had a view from Soyamisaki Observatory. It was very beautiful scenery around with high cliffs and beautiful sea, giving the feeling that we had indeed come to Hokkaido. Taeko was very happy and said she would like to see the Okhotsk Sea, so we went to see it along the seashore, while the weather was rainy. Here it was windy and the sea was turbulent. Sometimes losing our way, we walked for nearly three and a half hours. Then we returned by bus and train to Asahikawa and went to Biei to stay without a prior booking. We rented bicycles hoping to visit Patchwork Hill. Taeko rented a battery driven bicycle, whereas I was stingy and rented a manual one. The scenery was magnificent, but it was a hard bicycle ride. On the last day we visited Tomita Farm Flower Garden, etc. and then returned to Tokyo. The total trip expense was 400,000 yen, which was not considered expensive.

The Hokkaido trip was almost one weeklong. I felt like I had shown my gratitude to Taeko. She had always been supporting me in my working as ISPRS Council member. Taeko acted in accordance with western customs, whereby in principle the wife must accompany the husband to mix with wives of other directors, with broken English. Almost every Japanese wife would sneak away but Taeko did not. I could not fathom how much Taeko had contributed in her supporting role and I would like to thank her.

Taeko became good friends of wives of directors and is still in good contact, which is very heartening. We had good memories of several couples staying at our house such as, Gottfried and Liselotte of Germany, Armin and Gudrun of Switzerland, George and Jadwiga of Canada, Lawrence and Evelyn of United States, and Ian and Jan of England.

After retirement, everybody may want to think about saving to prepare for old age. We, husband and wife, also discussed this. Since the interest rate of banks almost came down to zero, we must forget the income from the interest. I then made two daring investments.

The first was the investment in stocks. Our house was near Mejirodai Station of Keio Railway Line, so we bought stock of Keio Co. which gave the annual free pass. Since I still had to go to work in Tokyo, this amounted to less burden on train commuting expenses and was much better than the interest from the bank. It was later found out that the dividend was quite significant. Taeko was disgusted with her stupidity in depositing the money in the bank, so she would like to invest in stock market with me. I watched for good timing and each of us invested 10 million yen in the stock of Keio Railway Co. At present, the price of Keio Railway Co. Stock has increased almost three-fold. I did not consult with investment staff of trust companies, since mostly they said something irresponsible. I just went to the trust

company and asked to buy the stock of this company for such and such number of stocks at the quotation price. It was the same way when I sold off the stocks, based all on my own decisions. The result was that in all, we earned a profit of several ten million yen. But there was no need for me to earn more money, I stopped investment in the stock market, since I knew that if one stumbled, a large loss would be unavoidable. The dividend from the existing stocks is about one million yen and I am quite satisfied with that.

When I buy or sell stocks or other properties, I make the decision on the spot. Not only in Japan, but this same decision making applies when I have travelled all over the world, including advanced countries to developing countries. I had seen and heard a lot about the real situation of an area which was very useful. I had visited big countries, be it United States, Canada, Russia, China, India, Australia, Brazil several times and had many friends. At the same time, I also visited developing countries like Bhutan, Nepal, Myanmar, Bangladesh, Sri Lanka. In Africa I used to stay in underdeveloped village in Ghana where unmarried women lived half-naked. I also had experience in countries in South America like Peru and Argentine where inflation was very high at about 100% per annum, and the exchange rate with U.S.dollar changed everyday. One thousand yen could fetch six digits of local currency. I met people of Masai tribe of Kenya and visited on safari. I sat shaking back and forth on an elephant's back in Assam of India. I saw

Rhino on safari and tigers in the forest. Having such experience was useful in the quick decision making of the problems which came from my over 300 overseas trips in about 60 countries around the world. What I thought as important was the animal instinct for survival at a critical time. Plants and animals in nature are living in the most optimal way under the given environment. The natural environment is the best solution. Therefore, I tried to let my sons be in touch with nature as much as possible. I also like to spend as much time as possible in the natural environment.

The second of my investments was in solar energy. Mr. Murasawa Yoshihisa (former Special Professor of Todai), a junior of the rowing club of Todai talked to me about this, saying that the profit was 20% per annum but the investment was high, one unit was 20 million yen, with the return of principle in 20 years. Most people would consider this to be a scam and would not invest. But I believed that sports club junior would not deceive me, so I invested together with Taeko, who supported solar energy and used to protest against nuclear power promotion by the Japanese government. European and United States friends said that "Aren't Japanese people stupid, atomic bomb was dropped in Hiroshima, Japan's great eastern earthquake gave rise to nuclear reaction in Fukushima nuclear power plant. Even facing such incidents, Japan still depends on nuclear power. This is unbelievable". It was indeed true. Solar power energy production needs almost no raw material, so it is no burden on the environment.

We withdrew the deposit and invested in solar power energy together. During the period of 20 years, every month one million yen principal and interest was returned to us. The total interest was 20%. Mr. Murasawa said that no matter how much he tried, besides us, nobody invested in solar energy. Mr. Murasawa was the advisor of a solar energy production company and used to introduce me to CEO of his company. This became a magnet of preparation for our old age.

Recently, Ms Koike, Mayor of Tokyo decided to enforce the law on using solar electricity in newly built houses, which was commendable. We should look at the examples in Europe, especially in Germany where there are promotions by state and private sector to use solar energy for electricity. Recently I visited China and found out that all motorcycles use batteries, no exhaust gas was emitted, and therefore is more advanced than Japan.

Development of environmentally friendly electric cars in Japan was behind United States, China and Korea, and this is deplorable for the Japanese car industry, and Japan may be left behind in the future. In fact, in Thailand, Toyota was the most popular car purchased, but now the Chinese electric cars are more popular than Toyota hybrid cars. I used to experience Chinese electric cars in Bangkok and felt comfortable There are parking areas and automatic charging stations. While driving on the road, if the car comes within I meter of another car, a sensor will

sound. As a Japanese person, I am concerned that in future Japan may no longer be an advanced industrial country and will have to be content with being a tourism dependent country with cheap prices, and clean and safe environment. The first time I went to Europe I had the feeling that the countries were so beautiful. However, at present, foreign tourists will say that Japan has beautiful nature, and the food is so marvelous. If I were to give credit marks to various countries, from my experience in foreign countries, Japanese politeness is number one in the world, so I would like to see the younger generations carry on this uniqueness. There was news about Japanese football fans collecting trash after the game which excited everybody around the world. This spirit must not be lost. Beautiful nature, clean cities, safe potable tap water, non-polluted air, reliable fruit and vegetables without contamination or insecticide, these are Japan's assets.

Money is necessary to avoid financial difficulty in old age, so that one is happy even as one gets old. But the more important aspect is spiritual contentment and sufficiency to be able to live happily with the family, be among good friends and kind people. The family is especially important, so there should be good relations with children and grandchildren, and to help each other. As for my wife and me, as mentioned before I struggled with an inheritance issue, resulting in cold relationships with some of my family, but this should be avoided. I built up good family relationships with my two daughters-in-law and my grandchildren.

The children of my in-laws also contact each other, even at gatherings such as weddings, funerals or festivals. The good relations commenced from a get together of family and relatives. Every year on the 30th of December I hold sticky rice cake pounding party at my house with about 25 relatives participating, after which we enjoy eating the moti cakes together. The gift from me for the grandchildren as the most senior person, was coins, being the small change I had accumulated during the whole year. The sequence of selection was decided by a toss of a coin. With eyes closed, their right hand was used to grasp as many coins as possible. Each grandchild would get 5,000 to 8,000 yen. It was a very joyful event, after which we played football in a nearby garden. Even though we live just as husband and wife, we do not feel lonely.

Before retirement there had been activities at Japan Survey Association with strong relations. In 1979 I was instructed to be director of the Association when I was Associate Professor. Before that, the world had entered the digital era. Even in Japan, practical use of digital techniques was also booming, including in the academies. In the world the original name of 'surveying' was changed to 'geoinformatics' or 'geomatics', to reflect the move into the use of digital technologies. As I was involved in international activities, I thought that Japan should go digital as soon as possible. In any era, there are people who stick with the original technology and Japan was no exception. I thought we should not be left

behind. Therefore, in 1995 I published an eye-opening book entitled "World of Geoinformatics: Message to Top Managers" printed by Japan Survey Association, which became one of the best sellers.

One year before my retirement, i.e., in 1999 I published a textbook on surveying entitled "Spatial Informatics" also printed by Japan Survey Association. Several universities used it to replace their old surveying textbooks. The word "geoinformatics" was coined by Professor Shibasaki Ryosuke my former student and Professor Shimizu Eihan a former student of Professor Nakamura Hideo.

During that period, contacts were made with managers of the three map printing companies which whom I had good working relations. Sometimes we had lunch or dinner together and exchanged ideas and information. Managers were Mr. Ando of Naigai Chizu Co., Mr. Tanaka of Chuo Chizu Co. and Mr. Midorikawa of Midorikawa Co. I proposed to the three managers as the top of this sector of the industry, that they should plan to enter the digital era. For Mr. Ando, his analog maps in stores around Ochanomizu was selling well, so the answer was "Wait and see." The former manager Mr. Tanaka said that if the digital era had arrived, he would stand back and let his son take over to develop into the digital era, whereas the manager of Midorikawa Co. replied that "Color map printing required original analog printing machine

by technician", so he did not want to enter digital era. The young Tanaka, as manager of his father's company, Chuo Chizu agreed with my proposal and imported expensive color digital printing machines at that time and started to train his technicians who were used to analog equipment. He also said that the company's name should be changed to be in line with digital era and sought my opinion. I told him the new name could be "Chuo Geoinformatics Co." and presented a talk about the future map printing industry to the staff of the company. Mr. Tanaka the manager, not only engaged in digital map printing, but also introduced GIS as a new line of business for his company. The former manager was quite concerned about the investment but listened to my advice. Now, what was the fate of these three companies? Midorikawa Co. which stuck to analog technology went bankrupt, Naigai Chizu Co. which had a maps sales department somehow survived, whereas Chuo Geoinformatics with good performance of GIS department, was lively and doing well.

At the time I was professor in Todai, I was asked to be the chief editor of the journal. The main income of the Association was from the ordinary member subscriptions of the monthly journal "Sokuryo". At the time I was the chief editor, the number of ordinary members almost dropped below 5000. The Association was then under the supervision of Ministry of Public Works (at present Ministry of Land and Transportation) and centered around almost 40 former officials from the ministry. The President and

Chief Editor alternated between former official and a university professor every two or four years. I did not enjoy reading the monthly journal "Sokuryo" which was full of serious technical surveying matters, so ordinary people said that it was a journal for officials.

I quarreled at times with the editorial staff comprising the former officials and decided to improve the journal "Sokuryo" on a big scale. Put simply, I changed the journal from a scientific and technological journal to a journal for the general public. Of course, contents related to science and technology of surveying remained more than half of the content, but my idea was to interview famous people or popular celebrities. At the end of interview, I would ask "Well, do you like surveying?" and waited for the answer. It was 30-minute interviews without being previous arranged, with a contract of 300,000 to 500,000 yen remuneration. The answers received were something like "Surveying is great", "It is worth working as it plays the role of advance guard of national land construction." Especially, in case of women, the answer was something like "Surveying is manly." Since I wanted to increase the number of woman members, I interviewed men and women in equal numbers. I also interviewed foreign people. I conducted a special interview with HRH Princess Sirindhorn's during her visit to Japan. Besides there were Mr. Horie Ken-ichi, who singly crossed Pacific Ocean by yacht, Ms. Koshino Junko, apparel designer, Mr. Komatsu Sakyo author of "Sinking

Japan" etc., a total of 30 interviews.

These interviews were printed in color. Suddenly the journal became popular, and purchases by ordinary members increased rapidly, from 5,000 to 13,000. The annual subscription fee was 5,000 yen, and with member increase of 8,000, meaning an income increase of 40 million yen. After deducting the interview fees of 500,000 yen per person totaling 15 million yen, the increased in income was still 25 million yen. It was rumored that those coming from government officials complained about high interview fees, but later on they went quiet. It was a blessing that women members increased. Later when I became President of the Association, I set up a "Lady Surveyor club."

Five years after retirement, in Heisei 17 (2006) I became Vice President and two years later in Heisei 19 (2008) I became President and continued as President for four terms totaling eight years, Normally the term of President was two terms for four years, alternately between the former director general of National Land Institute and university professor, but I continued for the 4 terms. During my term as President, due to government structural reform, the name and organization was changed to Japan Survey Association. The Board of Directors was also significantly reformed, with the inclusion of managers from regional survey companies who became more active. I dare to explain that this was through repeated logical and democratic discussions. I learned from ISPRS

where a logical proposal was presented and cleanly adopted, according to the so-called principles of logical thinking.

During my tenure as Presidency, two successful projects were implemented. The first was the digital photogrammetry workshops organized in different cities, from the north in Hokkaido to the south of Kagoshima. A total of about 1000 people received training in digital photogrammetry techniques. I lectured on principles of photogrammetry, Mr. Otani Hitoshi of Topcon used computer software for practical training, Mr. Tsuzura carried out office procedures and acted as training assistant. Digital photogrammetry is my professional technology. At the workshop about 20 workshop trainees were told to bring their own digital cameras to take stereo photos of the stone wall of castles in Kumamoto or Sendai and make 3 dimensional maps of the stone wall of the castle. The workshop was held several times in a year in Sendai, Mito, Osaka, Hiroshima, Kagoshima etc. for several years, totaling almost 50 times. The Topcon Company brought along software which they had developed and participants could make measurements from their digital images. Workshop participants could purchase the software at a special discount price.

After the workshop, participants were happy to have a lively conversation at a closing party at a nearby drinking restaurant with Mr.Otani and Mr. Tsuzura. Even now three of us

hold get-together lunches or dinners every three months. They are truly dear colleagues.

The second project was high level seminar. This was the idea of former general manager, the late Mr. Takeda Hiroyuki, to gather managers or directors of regional survey companies for the workshop on how to set up strategies, mission statement preparation with me as lecturer. I learned through the meetings of directors of ISPRS that the weakest point of Japanese culture was the lack of strategies, so I wanted to instruct managers on how to develop strategies. When we look at the articles of association of Japanese companies, only the aims of the businesses are written, but not the missions. This is the biggest difference from European or American companies or organizations, and it is a defect in the management of Japanese companies.

The workshops which were intended for about 10 managers were implemented for more than 10 years. In the beginning the managers were asked to prepare the mission statement of their own company and how to implement such mission statement to fruition, then make a presentation to everybody. I acted as moderator and asked everybody to discuss and improve the mission statements. The managers spoke well of this exercise that through the workshop the direction of their own company became clear in the mission statement and they could looked forward to their aims for the future. Even after my

retirement from Japan Survey Association I still have parties with some of the old managers to strengthen our relationship and it is good to remember them.

As President of Japan Survey Association, the important job was the interface with the National Land Institute of the Ministry of National Land Transport, the supervising authority. The most important job was personnel matters involving the reemployment of government officials, Old Boys who reached mandatory retirement age, to management positions of the association. This is called Amakudari (coming down from the sky) personnel affairs. No.1 source of income was the certification of surveying equipment. In legal terms, surveying equipment used in the surveying of all government undertakings must pass the certification process. Contract undertakings related to the National Geographical Institute were also important and constituted a source of income. Then one more important thing was the management of the technical committee concerned with legal regulation on surveying techniques and revisions or establishment of new regulations or standards. There was also the responsibility of editorship of the monthly journal "Sokuryo". It was not possible to entrust all matters to the President. Practically the General Manger took all the work assignments. When I was President, the late Mr. Takeda Hiroyuki, who was former secretary general brought in Mr. Ono Kunihiko from Chuo Map Co. Ltd to be Secretary General. Normally if the President was

an academic, the Secretary General would be a person from National Geographical Institute. Since I was close to Mr. Ono, our combination was convenient for the reform of the Association.

No.1 achievement was probably the inauguration of the overall supervision of the technicians for spatial information, who would receive the same qualifications as a surveyor. Technicians undertaking contract work for the government were required to have these qualifications. Some surveying companies even significantly increased the salary of those who obtained such qualifications. At the beginning I prepared examination problems and also acted as examiner.

My No.2 achievement was changing the name of the exhibition from National Survey Technology Design System Exhibition to Geo-spatial Information Forum, an innovation of its scale and events. The number of product exhibition companies and participants increased two-fold. At present it is one of the big events for the Association. As President, the popular event was the welcome party organized for every new year. The first speech at the party was by the President of National Land Geographical Institute, the supervising government agency, but this was a greetings message drafted by the office secretary, and not very interesting. For me, I gave a speech ad lib, smiling and interspersed with jokes and briefly publicized the work targets. Since the targets would be realized, some staff even took memos of what I said.

14 Commencement of Earthquake Prediction Research and formation of Japan Earthquake Science Exploration Agency (JESEA)

As mentioned earlier, since 2002 when I was 62 years old, and two years after my retirement from Todai, I was invited by Mr. Araki Harumi to start earthquake prediction using GPS. At that time, real applications of GPS had just started, and the accuracy was not as good as at present, but it was adequate for earthquake prediction. Mr. Araki had developed a method for the prediction of earthquakes based on abnormal rates of change of distances between two GPS locations.

I also did trial and error experiments using Mr. Araki's prediction method. One year later i.e., in September 26 2003, a large M8.0 scale arthquake occurred on the shores of Tokachi in Hokkaido with major impacts on the transportation network. Oil storage tanks at the location received lengthy vibrations and finally were destroyed, resulting in oil spills into the sea.

I hurriedly checked past GPS data and found that there was clear prior phenomenon to this earthquake. Suddenly I had confidence that GPS data could be used in earthquake prediction. Immediately a patent application came to my mind. While receiving instructions from Mr. Kimura who had the responsibility for the patent section of a private company, I prepared detailed

documents and drawings, included in the application form entitled "Earthquake, Volcano Eruption Prediction." and submitted the application to the Patent Agency. I already thought that volcano eruption prediction was the same kind of phenomenon as earthquake. Without relying on the patent attorney, a layman like me even though I had had some instruction from Mr. Kimura, I was quite bold to submit a patent application, but soon the application was rejected. Mr. Kimura was told that at least one rejection was likely, so I made some revisions and replied but I received a second rejection. Since I had made some accusations in my earlier reply, this time I made corrections politely. However, I was surprised that I received a third rejection. It seemed that the inspection official was an earthquake expert with no detailed scientific knowledge of GPS itself. After discussion with Mr. Kimua, I was told that it would be better to be humble and make necessary corrections, but I did not want to adopt a servile attitude. Since I considered that the patent was a system for promoting the progress of science and technology and a useful application thereof, to be rejected on small matters was not acceptable. So, I disputed the ruling and was ready to appeal to the courts. But several months later the patent certification was received, dated December 20, 2005. My arguments for acceptance of the patent had been recognized.

I took it for granted that once a patent had been obtained, the world would recognize it, and it would be applied in real

situations. But the patent's recognition was not so straightforward. The response from private companies was not as expected. Not knowing what to do, I talked to Mr. Maehara, a former student of Murai lab who was Divisional Director at Tokyo Electric Co, to see if Tokyo Electric would be interested to use the patent. However, he told me "Sensei, only the patent was approved, this cannot be believed immediately. But since you propose it, we will set up a three-year project to study and check the validity of this patent with past earthquakes". Thus, a three-year research project was carried out under my guidance at the subsidiary company of Tokyo Electric Co. which specialized in information processing. Around one hundred past earthquakes with larger than Richter Scale M6 selected and immense validity operations were carried out. Tokyo Electric Co. promised that if an earthquake larger than magnitude 6 could be predicted within one month, and within 100 kilometers of its location, then this patent would be used. However, the result of the validity check could not satisfy the requirement of "within one month." The most significant outcome of this validity study was a clear recognition of prior phenomenon to earthquakes, even though the timing accuracy was poor. This was a big step forward in the path to practical earthquake prediction once the accuracy of time could be improved.

After retirement I did not have a permanent job but was still quite busy. As consultant of several companies, I participated

in a monthly half day technical development study group at each location. Besides being the chief editor of "Sokuryo" of Japan Survey Association, I had to go to Shonan campus at Fujisawa once every week as an invited professor at Keio University to guide masters and doctoral thesis students. In 2009 at the age of 70, I joined the senior training and rowing racing of Todai twice a week. I also showed up at various committee meetings, so there was something to do everyday.

After the end of the validity study of Tokyo Electric Co. earthquake prediction using GPS, no accurate predictions had been achieved, but I cooperated with no remuneration as a technical consultant of operations concerning crustal movement analysis using GPS as business, of a subsidiary company of Shimizu Construction Co. The derived benefit was the knowledge applicable to earthquake prediction. Time passed by and several years later in January 2011, a technician from the company requested me to check an abnormal variation in GPS data, and whether it was an error or just noise. I investigated and validated that it was neither an error nor noise. About 5 weeks after the occurrence of this abnormality, the East Japan Great Earthquake occurred. On the morning of that day, there was senior rowing crew training. Since I had a private errand, I did not stay to have lunch together with the rowers, but returned home, which was lucky. Other colleagues were on the way home when the earthquake struck and were delayed on their way, some

spending 8 hours before reaching home. I shouted at Taeko, my wife who was frightened by the strong shaking "Go outside" and take shelter. Takao said that our granddaughter Juli was at the kindergarten at Takao, so after the earthquake was over, we went by car to bring her home. Juli was sitting in the shelter with other children in the playground of the kindergarten.

After calming down I recalled the occurrence of the abnormal GPS data discussed earlier. I became aware that this abnormality was surely the prior phenomenon. I was annoyed that if the information about the abnormality in GPS data prior to the phenomenon of the great earthquake had been sent to people as a warning, many lives could have been saved. I was full of regret that as a scientist while knowing about the abnormality I did not say "It is abnormal, look out for a big earthquake." Following the great earthquake a massive tsunami occurred resulting in more than 20,000 lives lost. If **I** had issued a warning, it was not certain that how many people could be saved but at least 10, 20 percent should have escaped.

Driven by the thought of repentance, I went through mental agony. By chance, about one and a half years later in autumn of 2012, I happened to meet Mr. Kitta Toshihiro and Mr. Tanigawa Toshihiko. At that time there was a movement to contribute to society for earthquake rehabilitation. They asked me if I had any ideas on how to contribute to society. When

I answered that “How about starting a business to save people’s lives by earthquake prediction, since I have a patent on the topic.”, They proposed to work together using all available means. M .Kitta was managing a company related to movie production. Mr. Tanigawa was the old boy of an information related company. Both of them used to participate in the lecture meetings of Honorary Professor Ueda Seiya of former Earthquake Research Institute of Todai, who was an authority on plate tectonics. They said that they were surprised to hear such words “If someone other than a researcher on seismology can catch prior phenomenon, then earthquake prediction is possible. Seismologists may not be able to predict earthquakes.” I am truly a researcher outside the field of seismology. So, make hay while the sun shines. So about 3 months later, on January 17, 2013 Japan Earthquake Science Exploration Agency (JESEA) as a company was registered. January 17 was the day of the occurrence of Hanshin Awaji Great Earthquake. Mr. Kitta was the chairman with 51% of stock, and I, at 72 years old, was the advisor with 49% stock. Mr. Tanigawa became managing director, and the three-man company started. The business model was like this. Earthquake prediction information would be dispatched every Wednesday to members who pay a monthly fee of 220 yen. But the number of member applications was not as expected. Even with my insistence to related colleagues, members did not reach one hundred. No pay for me was all right, but Mr. Tanigawa had children to look after,

so no pay was not acceptable for him. Mr. Kitta and I were content with no pay. Even with that, rent of a small office in Aoyama, payment to internet provider, and other expenses moved the company close to bankruptcy. As Mr. Kitta said he knew Mr. Iwai Shunji, movie director, so gathering of movie colleagues was tried and a special lecture were delivered to them as an effort to lure members. When one thousand members was reached, we were happy and had a small party. Income from one thousand members was just 220,000 per month and out of this, 20 to 30% must be paid for internet, so the account balance was in red. To avoid bankruptcy, I gave a loan of 10 million yen.

Earthquake prediction information at that time was still immature, it must be admitted that the contents were also poor. At the time I thought bankruptcy was unavoidable, but unexpected good fortunate came to us. The weekly magazine Shukan Post kindly printed a special issue concerning earthquake prediction, as a photogravure. Even then, member increases were very small. However, maybe this was the chance, because Fuji Television requested an interview. At that time Japanese society was noisily involved in the debate about when Nankai Trough Earthquake would occur after the Great East Japan Earthquake. After the Great East Japan Earthquake, there was public criticism of seismologists asking why they could not predict earthquakes. They defended saying “earthquake prediction is difficult.” The interviews of Fuji Television took place from January to

February 2014. It was televised on March 9. At the last interview at the end of February, the series responsible reporter asked me "When will earthquake occur in Nankai area?", and I answered, "Probably in March". He was surprised saying "Is that so soon?" I did not make a random guess but thought of the abnormality in GPS data in January and so just spoke out. Taeko watched Fuji Television program on March 9 and was worried saying "Is it all right to say earthquake will happen in March?" But I said, "since television content cannot be erased, I was resigned to having made the statement of fate" and remained silent.

I went to the shrine nearby and prayed. Maybe because of God's blessing, nine days after the broadcast, i.e., on March 14, there occurred the Iyonada earthquake in Nankai Trough region. (M 6.2 maximum quake 5) stirring up social emotions. Although the scale of earthquake was not large, it was the period when the public was so worried about Nankai Trough region. The number of members of our company increased rapidly reaching more than ten thousand. President Kitta often phoned me with excitement. With this JESEA was saved from bankruptcy.

Around this time, NTT Docomo by themself helped set up electronic fiducial points at 16 locations in the country. Divisional Director Yamazaki (at present Executive Director) provided great support. At present these electronic fiducial points are still in operation and are useful as basic data of earthquake prediction

and I am grateful for this. Besides, there were JESEA's own electronic fiducial points. The location was in the ground of my student Mr. Kurosawa Asashi's company who lived in Odawara. Another location was in the ground of Tokyo Agricultural University through good office of Mr. Kunii Hirokazu, I would like to thank both Mr. Kurosawa and Mr. Kunii Hirokazu for their cooperation.

Since the ratings of Fuji Television interview was good at that time, the interview was broadcast a total of 7 times, the latest one was the interview taken after Kumamato earthquake in 2016. Each time members of the company increased, and its operation was well on their way. The weekly magazines Shukan Post, Shukan Josei and the evening edition of Fuji also supported our column in print. This was gratefully acknowledged.

At that time, we relied only on GPS data for earthquake prediction and to find crustal movement from GPS data, it was necessary to visualize various variables. In this connection, it was Mr. Yanagi Hideji who contributed greatly to the development of software. He was the student of Professor Chikazu Hirobumi of Tokyo Electric University who was my student and received guidance from Professor Chikazu and was awarded a doctoral degree. Thus, he was my outstanding student. He made calculations of suddenly moving points in height data H calculated from X, Y, Z data of GPS; constructed visualizations of rising and

sinking images of GPS values within a limited area; completed the construction of horizontal vector illustration showing how much movement there was in the horizontal direction. Even now this software is still in use, and we are very grateful for it.

The distribution of weekly movement of heights of points of more than 4 centimeters, regional distribution of rising and sinking images of points and the illustrations of the distributions of horizontal vectors, as developed by Mr.Yanagi and other abnormal movements, were carefully monitored and when investigated with related actually earthquakes that had occurred, including the source and distribution of maximum earthquake scale. It was found out that several earthquake predictions hit the target. It was possible to display dangerous scale earthquake predictions and explanations in our "Weekly MEGA Earthquake Prediction", which was distributed to feepaying members every Wednesday. But thinking of the importance of these predictions, the writing of the contents frayed one's nerve. I asked my wife Taeko with her woman's insight to check the draft. I feel most grateful that she did. The deadline for completion of writing was Monday, so on Monday was the day of exhaustion of my nerve and stomachaches. I was responsible for writing up the description of MEGA earthquake prediction for 8 years, but I retired when I became 81 and left the responsibility to staff of the consultation system.

Although GPS data showed a very important precursor of earthquake prediction, it still could not break the limit of 2 or 3 months in prediction accuracy. When the members were asked, many replied that if the prediction was within one month, disaster prevention could be prepared, but 3 months was too long. It is not known whether this was the reason, but the numbers of members started to decrease. The maximum number was nearly 50,000 but now it was approaching 40,000. However, there was income from corporate members, and they barely posed a problem for the running of the company. At present the situation is the same. At the end of 2022, there were 3 Executive Directors including me, with 3 ordinary staff and 2 non-permanent employees, somehow the company could maintain its operation. Staff comprised of Kitta Toshihiro representative Executive Director, Tanigawa Toshihiko Executive Director, Guo principal researcher, Mr. Sasaki Tatsuki and Mr. Choji Masaru, totaling 5 people. Non-permanent employees were Mr. Muramatsu Hiromichi, Mr. Ojima Takayuki making a team of 7 people with good teamwork and friendly relations.

In the past there were staff with some problems, but the present staff were outstanding. Besides, there was Nishimura Akihiko Sensei, former Principal of LCA International School who participated in my earthquake prediction validity research. He cooperated in the earthquake prediction validity research as a volunteer and as ikigai after retirement. We are most grateful

for their contributions.

A big reform in a new prediction method came to pass when I became 80 years old in November 2019. There was an international conference in the famous tourist city of Guilin, China. I participated as one of the keynote speakers. There was Professor Guo Kwang Min of Nanyang Normal University, in the south of China who travelled 1,300 kilometers to meet me at significant cost.

Before this, I received a sudden email from Professor Guo relaying that he would like to leave his professorship and join JESEA in Japan to work on earthquake prediction and asked for employment, but our company could not afford to pay a professor class salary and we rejected the request several times. In China, university professors must submit several peer review papers each year. However, peer reviewers were specialized in seismology, so new earthquake prediction method proposed by Professor Guo was rejected. As a result, there was no place for him as professor in Nanyang Normal University. Moreover, in China it was forbidden to send earthquake predictions to other people. As it stands, his new earthquake prediction method could not be used. At the meeting in the hotel, from my impression he looked gentle and serious and not much like most Chinese people, more like quiet Japanese people. After returning to Japan I discussed with President Kitta, but the answer was the same;

the company could not pay the salary and thus we rejected him. However, Professor Guo said 100,000 yen was sufficient, please let him work at JESEA. I was driven by his zeal and he accepted with a salary of 300,000 yen.

After obtaining resident permit, finding an apartment for Professor Guo, full scale mutual research on earthquake prediction with me commenced. It was quite surprising that Professor Guo with various new ideas proposing phenomena that can be derived from remote sensing, which would be deemed as precursors of earthquakes. I made occurrence probability validation between these phenomena thought to be precursors and discovered an 80% high probability of several precursor phenomena. One of these showed a special cloud pattern in weather satellite images prior to earthquakes. From this, JESEA could make pinpoint prediction (same meaning as earthquake prediction). Not only special cloud images, but also abnormal temperature changes, abnormality in climate stability, etc. were also precursors presented by Professor Guo. What was surprising was the straight-line positioning of some planets, movements of planets, positional relationships of space objects such as planets were also possible precursors. Phases of the Moon were also related to earthquakes. Besides the above precursors, infrasound abnormalities previously used by me, abnormal GPS transmission wave phases, magnetic disturbances, aurora electron jet abnormal variations, all together more than 10 types of precursor phenomena were used to improve the accuracy

of earthquake prediction. Since Professor Guo came to work at JESEA, pinpoint predictions could be dispatched to the members. That is to say, it was possible to predict earthquakes according to the requirements of "within one month", "one hundred kilometers", and "more than M6.0." If allowed a little exaggeration in predictions, this might be called the first glorious achievement.

I became interested in "Who is the bad guy in the prediction of earthquakes? I began to doubt what seismologist said about "sinking of plates", "active faults", as the factors creating earthquakes. This theory lacks scientific foundation. No temporal or space observations of plates have been conducted. The same applies to active fault observation. In contrast, in Professor Guo and my proposal, precursor phenomena were all based on scientifically observed data derived from remote sensing. It has become apparent that earthquake prediction is possible with remote sensing technology. This strengthens our self confidence that Professor Guo and my specialty in remote sensing are the keys to earthquake prediction.

In the course of making various investigation, I found out that U.S. earth satellite was conducting scientific observation of solar activity by remote sensing, from the GDES satellite, magnetic field strength was measured by magnetometers, solar flares by X-ray sensor, protons by high energy quantum sensors; and from

the Solar Dynamics Observatory (SDO) satellite, ultraviolet images of the abnormalities on sun's surface. From DSCVR satellite velocity and density of solar wind were also determined. These abnormalities of solar activity are uploaded onto the website called space weather forecast of the National Information and Communication Technology Institute (NICT).

I started to do validity research on occurrence probability of big earthquakes in the past with these solar activity abnormalities Just before the pandemic, through my niece, Hatsune and her daughter, Ayane I was introduced to Nishimura Akihiko Sensei, former principal of LCA International Primary School. Nishimura Sensei would like to join as a volunteer in the earthquake prediction research to spend his remaining life after retirement. Instead of no-remuneration, with the promise to transfer my earthquake prediction know-how, he became my research assistant. Nishimura Sensei joined me in the research and was given the task of occurrence probability validity checks between various solar activity abnormalities and past earthquakes. Together with Nishimura Sensei, in September 2020 we authored an academic thesis entitled "Occurrence Probability Validity Research between big Earthquake and Solar Activity Abnormalities."

In sunspots nuclear fusion of hydrogen gives rise to 300-600 km per second solar wind radiated into space. Large nuclear fusions create solar flares reaching the X level (maximum level),

inducing magnetic storms disrupting the earth's magnetic field and creating aurora, and frequency interference. When the orbits of the Moon, Mercury, Venus position these bodies in a straight line between the orbital paths of the sun and the earth's solar wind will create mammoth spiral phenomenon and earth magnetic disruption. As a result, the earth is shaken and thus an earthquake is induced. The earth is rotating on its axis at speed of 460 meter per second and rotates around the sun at a speed of 30 km per second. The upper part of the inside of the earth, the mantle is at high temperature, high pressure fluid, receiving outside centrifugal forces to spill out onto the surface all the time. Along the volcanic regions at plate boundaries, when there is great turbulence of solar wind, volcanic eruptions will occur. In case of not reaching eruption level, cracks will occur at the crest, spilling out radon gas, a high temperature vapor creating a fumarole phenomenon, abnormal change in surface temperature, air temperature and relative humidity near the surface, rising to the sky creating peculiar cloud patterns. After the gas or vapor dissipates, concretion starts creating depressions or sinks inducing earthquakes. When surface temperature rises the magnetic strength of the magnetic declines, creating abnormal readings of the magnetometer. During the Edo era, if a nail under a magnet fell down this was the prediction of a big earthquake. It can be said that knowledge of our forerunners makes sense.

The above interpretation is my new theory and is called "Space Movement Induced Earthquake Theory", with the hope that young researchers having flexible thinking faculties will in the next 50 to 100 years make scientific proof and have it accepted nationwide.

Moreover, with further validation research, it became clear that on new or full Moons and when the planets of the solar system are aligned in a straight line with the sun and the earth, the probability of occurrence of abnormal solar activity is high. The reason is not clear and looking from the earth the approaching of more than two planets was the same. This validation was also presented as academic thesis authored together with Nishimura Sensei entitled "Correlation Validation of Planet Approach-Straight Line Formation and Occurrence of Earthquake".

There was Mr. Ojima Takayuki who supported me in the validity research as a research assistant. Around the time of setting up the Murai lab at IIS of Todai he came from Hosei University to work on thesis research at Kobayashi Lab next door. This happened 50 years ago. With the good fortune of being invited to a dumpling party at the Murai lab, after graduation, he became a research student at the Murai Lab. After that he was recommended to work at Zenitakagumi construction company. He worked on the construction of a Center for Space Research Institute of Todai at Uchinoura in Kagoshima. Murai lab was

involved in the design of the rocket center. After retirement his wife said it was a nuisance to stay at home all day, so he asked to join in the earthquake prediction validity research under my guidance. Mr. Ojima was extremely polite and made detailed validations. He was involved in the validity research on temperature abnormal variation and earthquake occurrence. The result was published in the academic thesis co-authored with me entitled "Correlation validation between abnormal temperature variation and earthquake occurrence." He made detailed validation to show correlation between abnormal variation of air temperature and earthquake occurrence. I would like to thank him.

Validation research of Nishimura Sensei and Mr. Ojima was at least above Master's degree thesis. I presented a certificate of "Earthquake Prediction Scientific Technologist" to these two people as role models of earthquake prediction science.

The above research paper was published in "Earthquake Prediction" the journal of "Earthquake Prediction Study Group" comprising a small number of researchers set up by me in May, 2021. The submitted paper was strictly peer reviewed by Professor Takagi Masataka of Kochi Technical University and Professor Tokunaga Mitsuharu of Kanagawa Technical University. We were grateful for their approval of the paper. The earthquake prediction study group was dissolved in December 2022. This was due to my reaching old age and my decision to set the boundary after

having presented my new theory entitled "An Exposition on Space Movement induced Earthquake" as special submit paper in the last volume of the group's journal. My physical limitations, especially poor eyesight, was quite severe. Even with spectacles, it was difficult to read small characters in the newspaper. This was the main reason. I walk a total of more than 5,000 or 10,000 steps a day divided in two or three times, so my legs and loins were still be satisfactory, but the poor eyesight was uncurable. So, I made a decision to retire at the end of January 2023.

I could attend as an active member of the tenth anniversary of JESEA established on January 17, 2013. January 17, 2023 was the 28th anniversary of Hanshin Awaji Great Earthquake in 1995. My life after retirement had been involved in earthquake prediction for 20 years and was quite fulfilling without time to ease of my mind.

On the 10th anniversary day, for the achievement of the great contributions to the actual application and commercialization at world level, but for the most difficult earthquake prediction I presented a certificate of appreciation to Mr. Kitta representative Executive President, Mr. Tanigawa Executive Director and Mr. Guo Kwang Min, Principal Researcher with my heartfelt gratitude. Even after retirement, I will continue to do research on earthquake prediction especially with a thought to provide earthquake prediction information to those disaster-prone people.


Correlation between huge Eq. and solar dynamics anomalies
No.17
2004/12/□ Sumatra Eq. M9.1
2011/3/11 East Japan Eq. M9.1
Magnetic Flux
Solar wind density
Electron
Geomagnetism
21 days before
2004/12/5
21 days before
2011/2/16

Gave a lecture on prediction of earthquake with a new theory “Space Movement induces Earthquake” on June 9,2023 organized by GISTDA.

The book “Lessons learned from East Japan Great Earthquake” by Professor Murai.

15 Epilogue

NHK had a program called Family History, in which famous people came out to tell about the route and the happenings in family of ancestors based on detailed investigations. Most of them did not even know or could not reminisce about their parents. My two sons for sure, not to mention my grandchildren, almost certainly do not know about my life. Even my wife, Taeko who lived together with me for a marriage of 55 years knows only odds and ends. For myself, the memory of past events gradually disappeared, becoming doubtful about the real facts. Referring to old diaries or memos or records as much as possible, this book was written, but many places may be dubious. It is no wonder that some might be based on my own biases or self-content or conveniences. My sons or my wife Taeko might even think that "I did not know about that" in some places in the book. However, this book was written from my standpoint and my real intention without prior checking by anybody. So, if there are any incorrect portions or unsuitable points, I beg for your indulgence. It is an autobiography written with good intention.

To decide on the title of this book, I again recalled what constituted my life. My weak point is short temper, prone to anger, making self-righteous and sudden decisions. As already written somewhere, from my animal instinct decisions are made in a flash of which 80% to 90% were successful. On the other hand,

looking at the good points, hitherto unheard-of original creative ideas, I executed important decisions, which were successful. in “A Life passing through Original Creativity.”

I may have made enemies, but I am also blessed with a lot of friends. I said that I am short tempered and a dogmatist. But I learned “logical debate” obtained from the experience of being director of ISPRS Council constituted mainly of European and American people, and had acted in accordance with opinions based on logic, with integrity across the world and having met with top class people of leading countries. I always sighed at the late decision making of Japan. My sudden decision, quick resolve is the norm of top-class countries in the world.

Some Japanese weekly magazines described me as “Outsider samurai”, or “Lonely knight”, but for one who hates blind following, “living through original creativity” is important.

Lastly, I would like to thank Dr. Suvit Vibulsresth who translated Japanese manuscript into Thai and English. I would also like to express my deep appreciation to Professor John Trinder for his kind editorial of English text.

Profile of Murai Shunji

Name : Murai Shunji

Born : September 19, 1939 in Tokyo

Mother : Murai Chieko, Father : Murai Sakari

Primary School : Yachikanai Nambu Primary School, Yamagata Prefecture, Ematamura Primary School, Yamagata Prefecture, moved to Kamisugi Yamadori Primary School, Sendai City, Miyagi Prefecture, finished primary school at Komatsunagi Primary School, Setagaya Ward, Tokyo

Secondary School : graduated from Kyoiku University attached Secondary School (1955).

High School : graduated from Toyama High School, Tokyo (1958). Entered University of Tokyo, Science 1 (1959 participated in boat racing in Rome Olympic in 1960, participated in World Championship of boat racing in Lucerne, Switzerland in 1962)

Graduated from Civil Engineering Department Faculty of Engineering University of Tokyo (1963)

Worked at Nippon Koei Co. Ltd. (1963-1966) the last year was dispatched to Ghana, Africa, after that unemployed

Institute of Industrial Science, University of Tokyo (1966, from research student to become lecturer)

Marriage to Suzuoka Taeko (1967, residing at Asagaya, Suginami Ward, Tokyo)

Eldest son born (1968), second son Tetsuya born (1969)

Received Doctor of Engineering, University of Tokyo (1970) promoted to Associate Professor (1971), Murai lab became independent (1973)

New house at 21/9, 4 chome, Mejirodai, Hachioji City, Tokyo (1972)

Participated in ISP at Helsinki Congress, family travel to Europe via Siberia Railway (1976)

Inauguration of 1st ACRS in Bangkok, Thailand (1980), 2nd ACRS in Beijing, China, become AARS Secretary General (1981)

Promoted to Professor of Institute of Industrial Science, University of Tokyo (1983)

ISPRS Congress Director (1984), Secretary General of ISPRS at Kyoto Congress (1988), President (1992), 1st Vice President (1996), Honorary Member (2000)

Chief Editor "Sokuryo", Journal of Japan Survey Association (1989)

Starting the first Regreen Movement (RGM) in tropical forest area of Thai border (1991), and continued since.

President of Japan Association on Remote Sensing (JARS) (1992)

Dispatched to Asian Institute of Technology (AIT) in Thailand as JICA expert (1992), building a new house in the village along Chao Phraya River and stayed with wife, dog and cats, twice, totaling 5 years (1993-1999)

Honorary Fellow of International Training Center for Aerial Survey and Remote Sensing (ITC) (1993)

Honorary Professor, Wuhan University of Surveying (now Wuhan University) (1994)

Decorated with Thai Knight Commander of the Most Exalted Order of the White Elephant (1997)

Participated in ISPRS strategy meeting (1998)

Constructed a new building of Geoinformatics Center (GIC) at AIT, inaugurated by HRH Princess Maha Chakri Sirindhorn (1999)

Chairman of the 2nd Committee of UNISPACE of UN (1999)

Retired from University of Tokyo, advisor of Kokusai Aerial Survey Co. Ltd., Honorary Professor, President of Japan **Society** of Photogrammetry, Special Invited Professor of Keio University (2000)

Bought a resort house at Ogura no Sato, Karuizawa City (2000)

Started research on earthquake prediction by invitation of Mr. Araki Harumi (2002)

Received patent "Earthquake, Volcano eruption prediction method" (2004)

Established Space Information Integrated Supervisory Technician Systems of Japan Survey Association (2005)

President of Japan Survey Association (2007)

Established Japan Earthquake Science Exploration Agency, Advisor (2013), President (2017), hired Professor Guo Kwang Min as Principal Researcher (2021), retired on January 31, 2023, Honorary President (Feb. 1 2023).

Glossary

AARS	Asian Association on Remote Sensing established in 1981 during 2nd ACRS in Beijing, China
ACRS	Asian Conference on Remote Sensing first in 1980, in Bangkok, Thailand.
AIT	Asian Institute of Technology formerly SEATO Graduate School
Boshin Senso	Japan Civil war in 1868-69
Ochanomizudai	Ochanomizu University for women, in Tokyo
ERIM	Environmental Research Institute of Michigan
EROS Data Center	Earth Resources Observation System Data Center Landsat Data Depository Center of U.S.
ETH	Eidgenossische Technische Hochschule in Zwich Switzerland
Geidai	Tokyo Geijutsu Daigaku Tokyo Arts Univesity
GISTDA	Geoinformatics and Space Technology Development Agency
Hongo campus	Main campus of University of Tokyo
ikigai	reason for being or life purpose
ISPRS	International Society for Photogrammetry and Remote Sensing
ISP	International Society for Photogrammetry
ITC	International Training Centre for Surveying and Mapping in Enschede Natherlands

Murai Lab	In Japan name of laboratory is called after the name of professor
SEIKEN	Seisan Gijutsu Kenkyusho or Institute of Industrial Science (IIS)
Sokuryo	Japanese meaning Survey
Todai	Short name for Tokyo Daigaku University of Tokyo
Tsubo	Japan area unit 1 tsubo = 3.30 square meter
UNISPACE	UN International Space Conference 1st (1968) 2nd (1982) 3rd (1999) all held in Vienna Austria
USGS	US Geological Survey

Translator : Dr. Suvit Vibulsresth

Born	:	20 October 1941 in Bangkok, Thailand
Education	:	D.Eng. (Remote Sensing) University of Tokyo Honorary Ph.D. (Geography) Ramkamhaeng University
Career	:	Executive Director, GISTDA
Translator of	:	Wings of Fire, Inspiring Thoughts, Indomitable Spirit, India 2020, Thirukkural, Sri Ramakrishna as we saw Him, Hozumi Spirit, Manimekalai
Recipient of	:	Surintharaja (Distinguished Translator) Award and Narathip (Distinguished Writer) Award
	:	Japanese Government Decoration, Order of the Rising Sun, Gold Rays with Neck Ribbon