Gottfried Konecny: involvement of spatial information sciences in ISPRS disciplines

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Preface
I am pleased to contribute an article to GSIS to commemorate the great achievements of Prof. Dr. Gottfried Konecny on the occasion of the celebration of his 90th birthday.

I was lucky to work closely with Gottfried as an ISPRS Council member for the first time in 1984 in Rio de Janeiro, Brazil, when I was elected as Congress Director of the Kyoto ISPRS Congress to be held in 1988. Gottfried was elected as ISPRS President for 1984 ~ 1988. At the first Council meeting under the President Gottfried, he said to all Council members “as we are like a family, I request that we address each other by our first names”. If he had not said this, I might have called him Professor Konecny, according to Japanese custom.

My communication with Gottfried has continued for 36 years until now. Since then I have learned a lot of lessons from him including his philosophy of “Elephant and Crocodile” which will be introduced later.

My judgment of the most significant contributions of Gottfried was the inclusion of the discipline of remote sensing into the mission of ISPRS in Statute 1 at the Hamburg ISPRS Congress held in 1980, when the name of the Society changed from ISP to ISPRS. Subsequently, spatial information sciences were included into ISPRS Statute 1 at the Vienna ISPRS Congress held in 1996, when I was ISPRS President.

Referring to ISPRS STATUTE 1 “Name and Mission” as shown below, you can recognize that remote sensing and spatial information sciences are important disciplines in society in addition to photogrammetry.

1. STATUTE I – Name and Mission

The International Society for Photogrammetry and Remote Sensing (hereinafter referred to as the Society) which was founded in Vienna, Austria in 1910 as “Internationale Gesellschaft für Photogrammetrie”, is a non-governmental international organization, devoted to the development of international cooperation for the advancement of knowledge, research, development, education and training in the photogrammetry, remote sensing and spatial information sciences, their integration and applications, to contribute to the well-being of humanity and the sustainability of the environment.

Two giants of ISPRS are the late Dr. Frederick Doyle (ISPRS President for 1980 to 1984) and Prof. Gottfried Konecny (ISPRS President for 1984 to 1988) made tremendous contributions to the transformation of the Society. Both supported me during the 16 years when I held ISPRS Council positions and are my mentors for my life.

2. Review of my historical involvement in remote sensing and spatial information sciences

2.1. From the commencement of my research activities in remote sensing until the 1988 Kyoto ISPRS Congress

I was lucky to have commenced my research in remote sensing about a year in advance of the launch of Earth Resources Technology Satellite (ERTS: the name was changed to LANDSAT-1 later) on 23 July 1972. At the time as an Associate Professor at the Institute of

Figure 1. Prof. Konecny and Dr. Doyle (Sky Island; 1986).
Industrial Science, University of Tokyo, I attended the Ottawa ISP Congress held at almost the same time as the ERTS launch. The first satellite images were introduced at the Congress site and had a significant impact on all participants. I was so surprised at the announcement of US policy that anybody could purchase satellite images over any other country. You may know that this was during US-Vietnam war. We realized that digital imagery could be observed by the line scanner technology instead of the conventional camera and film. Therefore, I felt that a new era of digital imagery had taken over from the film-based photographs. In 1973, when I attended the Fall Convention of American Society of Photogrammetry held in Sioux Falls, South Dakota, I purchased a cloud-free Landsat-1 image of Tokyo recorded on CCT tape. This was my first step into digital image processing, replacing analog film-based photogrammetry.

At the Ottawa ISP Congress, Japan took the ISP Council position of Second Vice President. I received this information subsequently, but I was not sure whether a country taking on the position of Second Vice President would be implicitly expected to present a proposal to host the 1980 Congress during the Congress in Helsinki in 1976. Despite the expectation that Japan would host the ISP Congress in 1980, Japan withdrew the proposal without adequate advanced notice, mainly because of the impact of the first oil shock in 1973. ISP therefore fell into a sort of crisis without a proposal for hosting the 1980 Congress. I was not aware of this situation because I was too young to be involved in the management of Japan Society of Photogrammetry. I was informed of this story during the 1980 Hamburg ISPIS Congress by Prof. Fritz Ackerman at the ISPIS Member Delegates party, when Japan had failed with its proposal to host the 1984 ISPIS Congress. Fritz Ackerman criticized Japan’s irresponsible manner in withdrawing its proposal in 1976. Germany made the difficult decision with limited time for preparation to host the Congress. Fritz Ackerman and Gottfried Konecný of the German Society rescued ISPIS by hosting the Hamburg Congress in 1980. I was so ashamed about the statement on Japan’s withdrawal of its proposal to host the 1980 Congress, which I left the party silently. I decided to overcome this shame by contributing to the Society in every way possible.

Without knowing about this situation, the Japanese Society raised its hand to propose to host 1984 ISPIS Congress during the 1980 Congress, but was defeated by Brazil. At the time I was elected as a member of Council of Japan Society of Photogrammetry and Remote Sensing (ISPRS) despite my young age of 40 years, because senior and well-known professors in Japan moved to the newly established Remote Sensing Society of Japan (RSSJ) in 1981. I decided to propose to host the 1988 Congress during the 1984 Rio Congress, because I wanted to recover the shame brought on by the earlier behavior of Japan, otherwise Japan’s younger generation would not be able to participate in the ISPRS activities.

During the ISPRS Congress held in Rio De Janeiro, Brazil in 1984, I made the presentation of a proposal to host 1988 ISPRS Congress in Kyoto, Japan using a slide projector. My competitors were Mr. Larry Fritz (USA), Prof. John Trinder (Australia) and Mr. Agawal (India). A day before the voting JSRS invited National Delegates and Council members to a lunch party at an Italian Restaurant. At the end of the party, Fred Doyle who was ISPRS President at the time, made a speech “Though I am an American who must support USA as a candidate to host the next Congress, I, as ISPRS President, would like to support Shunji of Japan!”. This was really a big surprise to me. In the evening of the day prior to voting, Prof. Fritz Ackerman visited me and said, “Germany has finally decided to support Japan as the host of the next Congress”. Because of such great support, Japan was elected at the General Assembly as the host nation of 1988 Kyoto ISPRS Congress, following which I was ratified as Congress Director. At the time I thought that my role was only to organize the Congress. I did not imagine that I had to serve on the Council for 16 years consecutively in the positions of Congress Director, Secretary General, President and First Vice President.

2.2. Lesson of Gottfried philosophy; elephant and crocodile

In 1987, a year in advance to Kyoto Congress, I invited Council Meeting in Kyoto, mainly to check the facilities and the environment of the Congress venue. On the last day of the Council Meeting, we came back from “Karaoke Song Bar” to our hotel late at night. After midnight, I was called by Gottfried and asked to visit his room. The late Prof. Dr. Kennert Torlegard, from Sweden and Secretary General, was also called to Gottfried’s room. He served us beer and Canadian frozen crab and said to us “I judge you two will be future candidates for ISPRS President. Then, I will teach you how to manage ISPRS Council composition. Never include crocodiles, only elephants. By crocodile, I mean people who steal fruitful results without working hard for them. By elephant, I mean people who achieve fruitful results by hard work. I judge you two are elephants.” Astonishingly Gottfried gave us the names of people in the ISPRS community who are elephants and crocodiles. Maybe based on his strong recommendations, Kennert Torlegard became ISPRS President from 1988 to 1992 and I became ISPRS President from 1992 to 1996.

The Kyoto ISPRS Congress was a great success, not only from the viewpoint of a surplus financial balance
but also because of the 1500 overseas participants and 800 from Japan, for a total of 2300 participants. When Gottfried, the President of ISPRS suggested to me to become Secretary General a year in advance of the Congress, I answered “I will think positively only when the Congress is successful”. Since everybody said that Kyoto ISPRS Congress was a great success, I had to take on the position of Secretary General from 1988 to 1992.

Frankly speaking, the role and job of Secretary General was most difficult for me, as a person from a non-English speaking country, as many person’s names and geographic locations are so difficult to spell. At the time, as we did not have modern electronic tools, I had to write more than 300 typed letters per year using the postal services. Nevertheless, the experience of Secretary General pushed me to better learn international culture and customs.

2.3. Lesson from Frederick Doyle

During my time as Secretary General, I did not forget the advice from Fred Doyle. I initiated the Asian Conference of Remote Sensing (ACRS) from 1980 and organized annual ACRS meetings in various Asian countries. I wanted Asian countries which were nonmembers of ISPRS to participate in ISPRS as Ordinary Members. However, Ordinary Members of ISPRS were traditionally represented by Survey Departments, which are not involved in the remote sensing community. For example, in the case of India, the Ordinary Member was the Survey of India, while the Indian Remote Sensing Society and National Remote Sensing Agency (NRSA) were not involved in ISPRS. As a result, most remote sensing communities in Asian countries were unable to officially participate in the ISPRS General Assembly. It meant that the remote sensing community in many Asian countries could not obtain funds to participate in ISPRS Congress.

I tried to change the rule to include the Asian remote sensing community into ISPRS as Associate Members, but Fred was strongly opposed to my idea. We communicated many “push and draw” letters. Fred finally agreed with my idea and I succeeded to officially introduce the Asian remote sensing communities or societies into the ISPRS Statutes. Fred understood that without Asia, ISPRS cannot become truly international. I am really happy to know that the two giant countries of China and India are participating so vigorously in ISPRS activities at present. When I was elected as a Council member in 1984, I used to be the only representative from Asia. Fred taught me “Don’t escape from difficult jobs!”

I have been so lucky to have met the two giants; “Fred and Gottfried” in my time on Council time and to have learned the two philosophies which govern my life even now.

2.4. Voting decision of adoption of spatial information sciences by Council

When I was the ISPRS President from 1992 to 1996, Council members started to debate whether GIS should be adopted as a discipline in the ISPRS Statutes. ISP originally dealt with cameras and photographs in photogrammetry before 1980 when remote sensing was adopted as the Society’s second discipline. Remote sensing was accepted as image-base technology which does not conflict with photogrammetry. However, GIS is not purely image-base technology. It is why some photogrammetrists strongly opposed the inclusion of GIS as an ISPRS discipline. I thought that spatial information sciences should be essential to the promotion of the integration and application of photogrammetry and remote sensing. I organized several Council meetings during my term. But I could not obtain consensus to agree to the adoption of spatial information sciences as an ISPRS discipline. I judged finally that Council members could not continue the discussion anymore and therefore requested a democratic vote. The result was 5 to 1 for adoption of spatial information sciences as the third discipline of ISPRS Statutes. At the Vienna ISPRS Congress held in 1996, the amendment of the ISPRS Statutes was approved at General Assembly. At the closing ceremony at the Vienna Congress, Fred who sat by my wife Taeko said when I finished my speech, “Shunji well done!” He also came to up me afterward and said the same words “well done!”

2.5. Personal contacts with Gottfried

Among many contacts with Gottfried in my life, I would like to introduce a few stories for the readers to understand his humanity.

3. Story 1: hospitality

In August 1986 when I was Congress Director for 1988 Kyoto Congress, I had to participate in ISPRS Midterm Symposium of Commission III (Rovaniemi, Finland), Commission VII (Eindhoven, Netherlands), and Commission I (Stuttgart, Germany). I was accompanied by my wife Teko at the three symposia for a 36-day trip. Before visiting Stuttgart, my wife and I were invited to stay at Gottfried’s house in Hannover, where Lisl (Gottfried’s wife) and a lovely dog welcomed us. At the time, the center of Hannover city was hosting an exciting Beer Festival, to which Gottfried and Lisl guided us. Gottfried guided us here and there trying beer with sausages just like a young boy. Usually, well-
known Japanese university professors may not act like Gottfried. He knows how to entertain his guests so they can enjoy the festival. His hospitality was perfect because my wife enjoyed the festival together with Gottfried from the heart.

The next morning, Gottfried invited me to enjoy walking in the woods near his home. We enjoyed walking for about an hour, but he lost the way back to his house. After he asked a few persons about the way back to his house, we succeeded at last to find our way back. Then LisL, his wife said to me, “This is the first time for Gottfried to wake up so early and also to walk through the park.” He knew my daily custom to wake up early and to exercise by walking every morning. This is his style to host his guests. He was really kind to me.

4. Story 2: spirit of never give up

In October 1998, I organized Workshop on Space Mapping in Ho Chi Min, Vietnam with sponsorship of NASDA (later the name was changed to JAXA). I invited Gottfried to the workshop as a keynote speaker. He kindly joined the workshop together with late Dr. Hans Knoop. During the seminar, Gottfried, Hans and I tried to make trip to Mito, on the Mekong Delta which was severely attacked by defoliants by US Army during the Vietnamese War. We visited a 6-story underground tunnel in which the Viet Cong survived. We selected the 5th story to experience walking through. Hans gave up going down into the tunnel as his blood pressure was too high. Gottfried and I decided to attempt to enter the deep tunnel under ground, but the height was less than 1 meter where we had to almost crawl. As Gottfried usually wears a jacket and tie and he was not thin and soft like me, he crawled all the way placing his knees on the ground. As I was thin and soft, I could bend my body and walk without touching my knees on the ground. After 30 minutes adventure, Gottfried was sweating heavily and his trousers were dirty. Though Hans laughed with Gottfried’s miserable appearance I was moved with his never-giving up attitude.

5. Story 3: adventure spirit with humor

When I resigned from ISPRS Council in 2000, Prof. Armin Gruen, ETH, Switzerland, one of my best friends, proposed that I should organize caravan workshops mainly in developing countries in Asia to transfer modern technology of photogrammetry and remote sensing to Asian scientists and engineers. Since then we organized caravan workshops one or two times a year in such countries like Thailand, Vietnam, Laos, Myanmar, Nepal, China, etc.

In 2002, Armin and Prof. Clive Fraser, Melbourne University, Australia showed strong interest to visit Bhutan in a link with the caravan workshop. My role was to negotiate with relevant persons to make a detailed plan. We invited Gottfried to join the workshop as a lecturer. As Armin’s mother passed away just before the travel, Armin could not join us. The three of us, Gottfried, Clive and I successfully organized the caravan workshop in Thein Pu. After the workshop, we were challenged to climb up to the holy Buddhist temple of Takshan from Palo. As Gottfried was the most senior, a guide accompanied with him all the way. As the temple is located on a forbidding cliff, climbing was not easy. But Gottfried succeeded to climb up to the temple together with us. But we had a problem that we forgot to obtain permission to enter the temple. As I was a Buddhist, I negotiated how I wished to pray in front of Buddha to achieve my happy life. After a quarter hour I succeeded to obtain the entrance permission. Then, I required Gottfried and Clive to pretend to become Buddhists. We three could finally enter the holy temple. It was fantastic to have prayed for happiness in front of the golden Buddha.

On the way back to our hotel, we had more trouble. As Clive and I were rather young, we could go down to our hotel with less difficulty. But Gottfried could not

Figure 2. Gottfried enjoying a cigar.
walk down smoothly. It became dark and Gottfried was too tired. Clive and I waited for Gottfried’s arrival at our hotel for about two hours. When he came back with his guide, he said to us, “I am all right and I enjoyed Bhutan much more than you!”. We toasted "Kampai” with beer and relaxed to enjoy a heated stone bath together. He did not lose humor even after his difficult adventure.

6. My impressions with Gottfried

I have never seen such a person like Gottfried who traveled overseas so many times to participate in international congresses, symposia, workshops of academic societies, UN/EU meetings and so on. Gottfried was everywhere, every time.

I have never seen such a person like Gottfried among professors who entertain people by making many jokes of an international nature. Gottfried was always in the center of fun and laughter.

I have never seen such a person like Gottfried whose memories were sharp and correct in terms of time, name of persons, geographic locations, and events. Gottfried has a computer memory.

I have never seen such a person like Gottfried who never changes his own custom and style to enjoy cigar. Gottfried always brought the smell of cigars with him. He was a man who never changes his own routine.

I have never seen such a person like Gottfried who always wore a suit and tie as well as thick wool socks. He never changes his style. Gottfried is a real stylist.

In conclusion, Gottfried has provided goals for my life. I am proud to have met such an ideal teacher. I wish Gottfried long life.

Notes on contributor

Shunji Murai was born in Tokyo, Japan on the 19 September 1939. He graduated from Civil Engineering Department, University of Tokyo in 1963 and he was awarded Doctor of Engineering in 1972. He became full professor at Institute of Industrial Science, University of Tokyo in 1983 and resigned in 2000 when he was offered Professor Emeritus. His professional careers include mainly photogrammetry and remote sensing. He was elected as President of International Society of Photogrammetry and Remote Sensing (ISPRS) from 1992 to 1996. Currently, he is Honorary Member of ISPRS as well as Japan Society of Photogrammetry and Remote Sensing (JSPRS). He is engaged in research on the prediction of earthquakes for 17 years since 2002. He established a private company: Japan Earthquake Science Exploration Agency (JESEA) in 2013 which distributes "weekly MEGA earthquake prediction” to about 50,000 subscribers.