

# Water Study for Peace: What I Learned from Professor Iwao Kobori in China, Tunisia, Egypt, and Algeria (2005-2010)

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**Abstract:** Professor Iwao Kobori (1924-2010) was the first president of the Japanese Association for Arid Land Studies (1990-2000). He conducted many international research missions in Asia, Africa and Latin America mainly focusing on Water Problems in Arid and Semi-Arid lands, with a special emphasis on the "Qanat" system and the oasis. The chief purpose of his life work was not just to study the origin, diffusion and the future of the "Qanat" systems of the world, but to disseminate and preserve the knowledge on this precious traditional hydro-technology for the general public and future generations. In June 2010, during his last visit to his beloved Saharan village, In Belbel, Algeria, Professor Kobori said "we should not be satisfied with doing researches for our own interest. We must make use of these results for the benefit of the local people by working together. I would like to thank all the people who made this possible".

**Key Words:** Iwao Kobori, "Qanat" system, Traditional hydro-technology, Water study for peace

## 1. Introduction

Professor Iwao Kobori (1924-2010) was the first president of the Japanese Association for Arid Land Studies (1990-2000). I would like to share what I had the opportunity to personally learn from Professor Iwao Kobori during our time together with all members of JAALS and participants of ICAL1.

Throughout his career, Professor Kobori conducted numerous international research missions to Asia, Africa and Latin America. His main research interests lied in Water Problems in Arid and Semi-Arid lands, with a special focus on the "Qanat" system and the oasis. He has published more than 100 scientific articles, written eight books, and was editor for ten publications and translated seven titles regarding the "Foggara" ("Qanat", "Karez", "Khettara", "Falaj") system. He started doing field surveys on the "Qanat" system in 1956 as a member of the Tokyo University Iran Iraq Archaeological Expedition. As a geographer, he found the "Qanat" water system in arid lands extremely interesting, and he decided to pursue its origin and do a comparative study of "Qanat" Oasis in the Old Continent. His field work expanded from Western Asia to North Africa, China, Central Asia and the Americas. Field surveys were supported by research grants provide by the Japanese Ministry of Education, JICA, the Toyota Foundation, UNESCO, United Nations University, the World Bank, ICARDA and the EC Commission. The chief purpose of his life work was not only to study the origin, diffusion and the future of the "Qanat" systems of the world but to disseminate and preserve the knowledge on this precious traditional



**Fig. 1.** Professor Iwao Kobori with Mr Hamadi Ahmed El-Haj and villagers at In Belbel, Algeria in May, 2009.

hydro-technology for the general public and the future generations around the globe" (Kobori, CV) (see References for his main publications).

I had the great opportunity to be with Professor Kobori at 1) Lanzou, China, 2) Tunis, Tunisia, 3) Alexandria, Egypt, 4) Aleppo, Syria, 5) Alger, Algeria, and 6) Saharan desert, Algeria, from year 2005 to 2010. I had the honor of being introduced to his friends and colleagues from all over the world, whose backgrounds varied from academicians to administrators, diplomats to local villagers, teachers to technicians, businessmen to artists, and from nomadic people to urban dwellers. Many were introduced to me during international conferences for arid lands and desertification, and also while doing field researches in villages of the Saharan desert which

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Professor Kobori loved most dearly.

## **2. “Sweet fresh water of “Karez” will irrigate friendship” (Sung Yi Tung)**

Professor Kobori gave a lecture to young students, age of twenties, at the Institute of Desert Research, Lanzou, in September 2005. I remember being very surprised, when he started his talk by saying “Nobody cannot prove which side opened fire on the night of July 7, 1937”.

The phrase was followed by an explanation about what motivated him to major in geography and how he came to study arid lands, with the support, and cooperation of Chinese colleagues. All who were listening, including myself, were of his grand-sons’ generation. We listened attentively to his broad range of topics and deep insights obtained through his enthusiastic field researches on the “Qanat” system and the traditional underground water management system, and through his loving relationship he had built with people from all walks of life.

He finished his lecture by sharing with us a phrase in a letter from his Chinese friend and colleague, Mr. Sung Yi Tung, which said, in Chinese, “Sweet fresh water of “Karez” will irrigate friendship”.

## **3. “Nation shall not lift up sword against nation, neither shall they learn war any more” (Old Testament)**

I participated in a joint international conference titled “Desertification and the International Policy Imperative” held in Algiers on December 2006. Professor Kobori made his presentation titled “Algerian Sahara: Field Surveys in Tidikelt”. He took to the podium, where the President and the Minister had just made their speeches, along with two Algerian colleagues: Mr. Abderahmane Benkhalifa, a date palm specialist, and Mr. Hamadi Ahmed El-Haj, a local teacher, who had been his co-workers for many years at the Saharan oases where he studies the “Foggara” and its conservation.

His lecture started with an introduction of a Tuareg proverb “God created large fields with water for men to live on, and deserts so that they discover their soul”. He then presented results from his field surveys, lessons learned from the local people, government policies and activities, the development of plans for the south, and inter linkages between local communities and central authorities.

Although we regard water issues as one of the most important problems today which the world must overcome through international governance for, conflict resolution, and poverty reduction, Professor Kobori emphasized the importance of water resource management, from early on

based on his field studies spanning a half-century on traditional water management systems. In these water scarce arid lands, he especially learned a lot from local communities about how to share, communicate, and live with one another in a peaceful manner.

He ended his moving speech with the phrase “They shall beat their swords into plow shares, and their spears into pruning-hooks; nation shall not lift up sword against nation, neither shall they learn war any more” (Old Testament). The international audience gave him a standing ovation.

## **4. “We should not be just satisfied with research for our own interests” (his last message in In Belbel, Algeria)**

In June 2010, during the hottest time of the year in the Sahara desert, Professor Kobori attended the Muslim Saint Festival he had long desired to attend. During the Muslim Saint Festival, all villagers come back hometown. Sitting together on the ground outside in the village of In Belbel, Professor Kobori and a few researchers working with the “Study of Human Subsistence Ecosystem in Arab subsistence” project I am leading at the Research Institute for Humanity and Nature who were from Italy, France and Japan, along with local community members, had a heated discussion about academic research and development projects for the future of Saharan village.

Mr. Pietro Laureano, a traditional knowledge conservationist and architect, asked Professor Kobori to tell us his own story. We were able to record his message in French and in Japanese. He said “we should not be satisfied with doing research for our own interests. We must make use of the results for the benefit of the local people by working together. I would like to thank all the people who made this possible”. This ended up being his last visit to In Belbel.

“I had been visiting In Belbel since 1977, with my friends Professor Suzuki and Mr. El-Haj because of my interest in doing a comparative study of Oases and “Foggara” in North Africa. Our team was not big, so we could not work in a big oasis. The In Belbel oasis was well isolated in 1977, with a total population of about 300. I thought this oasis was a perfect size for our small team from the University of Tokyo and other universities.

Since 1977, I have organized many research missions that were financed by the University of Tokyo and the Toyota foundation in order to study the “Foggara” and evaluate the oasis that it is in. During the last thirty to forty years, I saw many changes and progress in the oasis. When I was here in 1977, people lacked vegetables, there was only one teacher with 7 students in primary school, and population growth was slow.



**Fig. 2 Professor Iwao Kobori addressing his message at In Belbel, Algeria in June 2010**

In 1977 some families inhabited the Kasba, but only until the 1980s, when they moved to a new site. In the early 1980s, the people had only one “Foggara”, which irrigated all the farms under Islamic regulation. It was extremely interesting for students researching the “Foggara” system. People practice agro-forestry, but the date-palms were still small then. Since 1977, I organized three, four, or maybe five field trips with our research team.

During one of our trips in 1992, we held an international conference on combating desertification at Gardaia with the habitants of Algerian and Madame Bunaga. I would like to express my deepest thanks to Madame Bunaga for making possible our first official contract with the University of Algiers. Since then, I have met Mr. Pirtro Laureano, and Madame Bunaga introduced me to her best student Mr. Benkhalifa.

I cannot forget Mr. El-Haj, who is the most important man in the Sahara. I met him in 1961, during the war for independence. Even the Sahara was very quiet then. Daira of Aoulef introduced me to Mr. El-Haj who was very knowledgeable about the “Foggara” of Aoulef as well as others throughout the region. Since then, Mr. El-Haj and his family have assisted us with our research. Without their assistance, we would not have been to continue with our mission.

During the last thirty years we have made maps of In Belbel, to study such issues as the structural characteristics of families. Throughout our field research, we can say that the progress seen in the oasis in both statistical and economical situations. We have studied not simply for our own benefits, but also for the benefit of the people of In Belbel. The knowledge we have gained must be returned to the local inhabitants.

It was fortunate that after my retirement from United Nations University, RIHN in Kyoto, Japan started the project on human ecosystem in the Sahara, and chose In Belbel as one

of their sites. We are able to work here for three more years with our international colleagues and of course our Algerian colleagues, not only for our own academic benefit but to help the durable development of In Belbel community. Examples of needed development include the renovation of Kasba, Museum of Sahara, and the rehabilitation of abandoned lands or date-palms.

This project cannot be completed by our team alone. First we need to collaborate with the Algerians and then with the international community. Today I am very happy to have all of my colleagues here. If my friends will continue to study In Belbel, I will have chances to knock on the door of In Belbel in the future. Thank you very much.” (translated from French to English by Shun Ishiyama)

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