



When the fairy-tales are back

Artur Ishkhanyan

As a physicist and a member of the 20-th century generation, I gave up fairy-tales long-long ago..., but it was too quick with this.

This is my first time here in Japan. Before my visit, I knew very little about this country, mostly some cultural topics and historical facts, bright and dark. And, indeed, after those already passed six months, I can simply mention that it was a great lack of my worldview. Originally, I am from Armenia, in ancient times called “The Kingdom of the East” or “The Land of the Sunrise.” And before my landing, the only thing I had known was that I was flying from the ancient “Land of the Sunrise” to the modern one. And what surprised me most was that this “Land” is not less ancient and impressive and in the mean time, no doubt, a lot more modern than I could initially imagine.

In the footsteps of the famous Mountain of this country, I found the cutting edge, the highest level of contemporary science and technology, combined with the real eastern hospitality and temperate lifestyle. The Institute for Molecular Sciences is an excellent example of this statement. All the preparations in advance for a new visitor, the excellent work of all departments, libraries and laboratories, in a word, all the conditions really tuning to work are the realities I would heartily desire for organization of the science in Armenia, now suffering hard times.

Working in the group of Prof. Hiroki Nakamura, I greatly enjoyed his highest professionalism, sincere hospitality and personal charm. Professor Nakamura, one

of the most brilliant individuals of Japanese people that I met, has succeeded in creating and supporting a great creative atmosphere. I experienced here one of the best periods of my scientific career. I can simply say, that the Japanese Science and IMS particularly is very receptive to all innovations, and my work on the Photoassociation of an atomic Bose-Einstein condensate is also included in the spectrum of IMS activity. I must thus thank all the staff from my heart for what they have done for making my stay productive and wonderful (especially the constellation of kindest, pleasant women from both secretariats which helped me in everything, especially in overcoming an unexpected allergy that I suffered for some time).

...Trying to understand more deeply the culture of Japan, I began to learn Japanese. And to my surprise, this was the way I could penetrate into the spirit of the Japanese nation, due to the phenomenon of Kato-san—my teacher, a highest professional and amazingly universal in his knowledge. Behind his external coolness I discovered an unbelievable volcano, found a hospitable friend and an interesting guide. I warmly remember the day when he drove 300 km to show me one of the best temples in Japan. Many thanks to him. ...I would like to mention the nice guitar play by Prof. Uozumi that I often enjoyed in the well-known smoking corner of the third floor during my breaks in the midnight. ...I can't find proper words to describe my astonishment at the Okazaki fireworks. ...No doubt, this is the Eighth Wonder of Japan. ...After this period of my stay I understood, that



Hello from The Bible Mountain Ararat to The Fuji-san

the love of the Japanese people towards the Nature and life in Harmony with it is the best prerequisite to the understanding of the Nature as a whole and Physics in particular.

Now, leaving Japan—The Overseas Land, I will find my past dreams broken as the life of Urashima Taro after his return from the Undersea Kingdom... However, what is the main thing that does learn Japan? To look forward! Hope to see you soon!



One splendid summer at the Institute for Molecular Science

Puspendu K. Das

I spent three months during the summer of 2003 amidst mostly rain, at the Department of Electronic Structure, which has been a highly satisfying experience for me. I thank my colleague and friend Prof. N. Nishi for the invitation to spend a summer in IMS for developing a long-lasting interaction and relationship between our groups in the near future. During my stay, I came in touch with some extraordinary scientists in the group and in the Institute, who have enlightened and spiced my curiosity in research in many directions. I have very much enjoyed many long discussions with Prof. Nishi from magnetic molecules to Japanese history during my stay. For me, those discussions have been both informative as well as educational. I am personally indebted to him and the members of his group for their kind hospitality and warm friendship which made my stay at Okazaki both wonderful and enjoyable.

This was my second coming to IMS. I visited Prof. Nishi at the same department in the summer of 1989 for three days. I found IMS as a cheerful and vibrant place for research then and now. I was involved in two projects in the lab during this visit. In one, we were trying to characterize the light emitted from a gold nanocluster on a graphite surface excited by a STM tip at low temperatures. The nanoclusters were elegantly made by Prof. T. Tsukuda and his group. I enjoyed many insightful and scienceful discussions with Prof. Tsukuda during the formulation of this project. In another, albeit unrelated, project we investigated the nature of interaction between

phenol and chlorobenzene in a 1:1 gas-phase complex in the neutral as well as singly charged cationic ground states by infrared spectroscopy. The near IR absorption spectra of the O–H stretching vibration of bare phenol shifts to the red and becomes broad indicating strong interaction between the OH group of phenol and the π -ring electrons of chlorobenzene as the cause for the observed change. More experiments as well as quantum chemical calculations are necessary before concluding the results of this experiment.

On a different, rather personal note, I have found people in the Okazaki area very much caring and friendly. I had no problem dealing with them in the stores, restaurants, train stations and shopping malls, although, at times, I wished I had some working knowledge in Japanese! In spite of the language barrier, communicating to people was easy because of the politeness and patient attitude shown by the Okazaki area residents. Inside IMS, everyone spoke very good English and I did not need to know Japanese!

IMS has great laboratories: well equipped, modern and sophisticated. The scientists are all very diligent, capable and brilliant, however, I felt that it had far less number of young researchers than it can handle. Although some students of the Graduate school of Advanced Studies carry out their Ph. D. work in IMS, I have found well-lit sophisticated labs remaining unused because of lack of personals to work inside! I would suggest the planners and authorities of IMS to seriously consider admitting

doctoral students to its labs through a separate IMS program. That way the unique labs and facilities of IMS will be utilized more and a group of future scientists of Japan will receive first rate research training comparable to the bests of the world working in these labs. However, there might be some administrative hurdles that need to be overcome to make this happen.

By the time I started to feel much more at home in the Mishima Lodge apartment or bicycling through the lanes and streets of Okazaki, I realized that it's time to go back to the place where I belong, that is, to the Indian Institute of Science in Bangalore. However, as the interaction between my research group and IMS grows, I hope to visit the serene environment of the Okazaki castle or bicycle trails along the Otto river again in the near future.



Almost four years, not too long, not too short

Wang Zhi-Hong

When I came to Okazaki four years before, I was surprised how it is different with my imagination. Japan is the second top advanced country in the world. As I known Japan from newspaper and television there are a lot of skyscraper and endless traffic. But in Okazaki when I ride bike to JASCO or more longer trip to Nanbu Shimin Kaikan, about 30 minutes trip, I even not see a traffic police! All in order, all of people keep rules consciously. Also here is neat, quiet and peace though the drama of television full fill with the murder events.

It was the end of 1999 when I start my Ph. D course in IMS under Prof. Urisu's guidance. He kindly helped me manage everything. Also the foreign secretary Ms. Nagasono Hisayo help me a lot to obtain the certificate of alien registration and health insurance card. All other staffs showed their hospitality and kindness to foreigner. "Ready To Help" of their mentality make all visitors enjoy their living here.

My research topic is using FT-IR to investigate the reaction on Si(100) surface. When first time entering the UVSOR (Ultraviolet Synchrotron Orbital Radiation) facility I was shocked by this tremendous machine. Later I was shocked again when I visit the SPring-8 in Himeji, the biggest synchrotron radiation facility in the world. The big high vacuum chambers and many researchers who came from different universities or institutes made the underground room hot and busy. UVSOR staffs worked very hard even in midnight to maintain the synchrotron radiation machine keep good condition. Also many professors here keep working to midnight

impressed me that Japanese are the hardest worker in the world.

The language is always thought as a boundary for foreigners. But here it is little of problem. One is we can communicate using English, the other is that here it has a language support system. Okazaki is a traditional culture city. There are a lot of free Japanese training classes. The famous OIA (Okazaki International Association) Japanese class, the Yamasa Japanese class, Nanbu Shimin Japanese class *etc.* help us a lot to learn Japanese. Although we can not master a foreign language within short term, but it help us know a lot about Japan from life, culture and customs. Also I am so lucky I can read a lot of Kanji without any problem. Most of the meaning is same as Chinese. And the university also give us a 2 month Japanese training class every year. Now I can read and talk a lot of Japanese. It is my another goal to improve my Japanese writing ability.

Life in Okazaki is convenient. There are many supermarkets with abundant foods, fruits and other goods. Using a bike you can reach them within ten minutes. Sometimes go shopping is pleasant journal after daily working. Also I am a little bit sad when I see most of them are really expensive.

The scenery in IMS and Okazaki is very beautiful. When sakura blossom you know spring is coming. The scene is a perfect dream when you see the sun rising slowly in the east. The pleasant time is passing through a red Koyo forest in autumn. The snow in winter recall me my memory of childhood since it isn't snow for more

then 10 years in Shanghai, my hometown.

The study and research circumstance in IMS is very good. The state-of-the-art scientific equipments give you the opportunity to do most modern research. The library is not big but fill with abundant references and literatures which you can expend unlimited through various online services by Internet. From the intranet you can reserve a typical machine for your experiment. Also the staffs will help you using these machines carefully. Collaboration here is not only between groups but also extend to another universities, institutes as well as companies. Though these efficient systems the research limitation is only depending on your ideal.

I have chance to use IMS supercomputer for theoretical calculation. It is a really nice experience collaborated with theoreticians. Their preciseness and new angle of view gave me new ideal considering the experiment again. Now the collaboration is going on and makes more products as we wish.

Here I must thank Prof. Urisu again for his kind help. He also taught me the experimental skills and the joy of doing surface science experiments precisely. It will always be a great pleasure for me to cherish my association with him.

I sincerely thank Dr. Nonogaki Youichi who is an Assistant Professor in our group. He has helped me a lot in many of my experiments and related activities. I have had many experimental and personal discussions with him and got benefited to a great extent.

I would like to thank Dr. Noda Hideyuki who is cur-

rently working in Central Research Laboratory of Hitachi Ltd. for providing me initial support and help to understand the experimental procedures in the laboratory.

I sincerely thank Dr. Sam Dylan More, Dr. G. Ranga Rao and other group members, Dr. Watanabe Hidekazu, Dr. Ooi Kenta, Dr. Nanbu Shinkoh, Dr. Maki Jun, Prof. Aoyagi Mutsumi and other collaborators. And also I sincerely thank all IMS staffs. If I list all of them it will be a very long list. With their help my stay in IMS is a pleasant journey in my life. I am very grateful to them.