

## A Year with the Swiss Federal Institutes of Technology (ETH) How Logical and Rational Swiss People are ! My Experiences as a Visiting Researcher at ETH Zurich

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### 1. Introduction

For about 1 year, between January and December 2001, I had the opportunity to work at the Zurich campus of the Swiss Federal Institutes of Technology (ETH Zurich). This stimulating experience, which I look on as a major turning point in my life, allowed me to see that the values of the Swiss are very different from those of the Japanese, not only in relation to research lab management and discussion methods, but also to lifestyle in general. Because of the geographical and historical differences between Switzerland and Japan, I am unsure to what extent these values can be applied to the Japanese, however, I feel that I observed some of the very concepts that are lacking in modern Japan. In this article, I would like to relate my observations of Switzerland, focusing on the Swiss penchant for logic and reason.

### 2. Research work culture (Fig. 1)

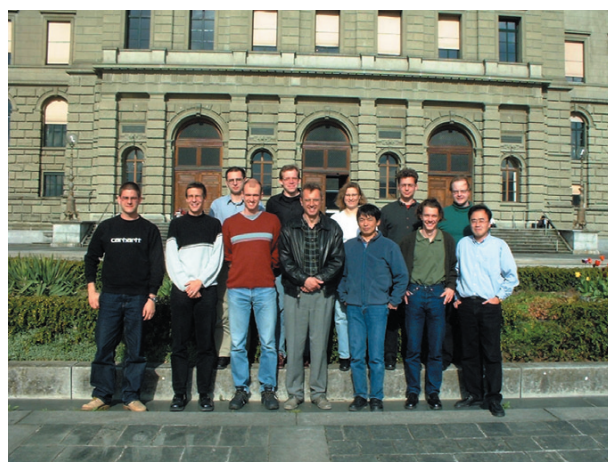
#### 2.1 Discussions in writing

Discussions with my professor were conducted primarily by e-mail or other written documents, with personal meetings used only to clarify details. Given that the professor was often extremely busy, the purpose behind this way of working was to avoid discussion of vague ideas, which were not sufficiently organized to put in writing. It is certainly true that ideas are impossible to write down unless they are clearly formed in one's head, and that the construction of logical discussions requires self-discipline. Another point is that excessively overstated or understated styles of expression also make it difficult to communicate one's ideas.

#### 2.2 "You have no place here!"

Soon after my arrival, I got into a heated discussion with my professor about the handling of

patents for productive research and the relative benefits of this to a company. Unfortunately, I took a rather childish "hit hard and then compromise" approach to this argument, which failed to impress the professor. Subsequently, he hit me with, "You have no place here!" As one might expect, I was left speechless for a few seconds. However, I realized that his response to my strongly stated opinions ("If that's really what you think, we can't accept you at this research lab.") was a logical one. I apologized and nothing further came of the incident. In the same way, during research report meetings and presentations by visitors, the professor would always argue logically and passionately. People giving presentations would often become upset, but the professor never gave into emotion. On the other hand, when the discussions finished, he would slap the person on the shoulder and say, "Hey! Let's go for a beer!" I was very surprised by this uncompromising commitment to research and



**Fig. 1** Professor Pratsinis and research lab members.

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management, and the clear, rational separation between debate and human relations.

### 2.3 Plans and suggestions

While preparing to present my research plan to my professor, another post-doctorate researcher warned me that, “Drawing up research plans is the professor’s work. We can only submit suggestions for the plan.” In other words, he felt that I had not properly understood how responsibilities were divided. Through the professor’s instructions, the scope of every individual’s responsibilities for equipment management, dealing with visitors and lab management for student experiments were extremely clear. For example, he would say things like, “On matters relating to this, I’ll leave decisions up to you,” and “On matters relating to that, prepare a proposal and bring it to me.” Even when it came to preparing invitations for parties, the individual responsibility of the participants was clearly emphasized, through the inclusion of the expression, “if you like.” Although this attitude may seem excessively dry in terms of human relations, I found it to be a very easy-to-understand and convenient approach to organizational management. I became very curious about how this approach to human relations worked in other spheres of Swiss life, for example in romantic relations. Unfortunately, I did not have an opportunity to explore this question through first-hand experience.

## 3. Daily life

### 3.1 Rational solutions

Blue lines mark the streets of Zurich’s residential areas (**Fig. 2**). These lines indicate spaces where cars are allowed to park. Anyone who buys a parking ticket for that particular area is permitted to park in one of the designated spaces. Ticket inspections are carried out regularly, and owners of cars that do not have a valid ticket displayed are subject to on-the-spot fines. The city introduced this system of converting streets into parking areas as a solution to parking space shortages. It is a “user-pays” system initiated and managed by the city. An interesting approach has also been taken to solve the problem of cleaning up dog excrement. Instead of imposing a tax on dog owners, excrement disposal boxes have been set up along the city’s streets. Rather than merely prodding the public with official

warnings to “Stop illegal parking!” and “Clean up after your dog!” the city has created rational systems that aim to solve problems in ways that benefit both the government and the public.

On another front, drug addicts in Zurich are officially divided into one of four categories, according to the severity of their addiction. Individuals in the most severe category are provided with drugs that are paid for by public funds. At the same time, they are given access to therapists, social workers and other health-care professionals to receive assistance in breaking their addictions. This bold system was designed to simultaneously achieve two goals; firstly, to help addicts, by preventing accidental overdoses from poor-quality black-market drugs and providing pure drugs to enable addicts to systematically break their addictions, and secondly, to reduce crime committed by addicts as well as suppress illegal drug trading.

The basis of this strategy is the belief that drug use will never be eradicated as long as addicts are treated as criminals. This approach views drug addiction as a kind of disease. Of course, not everyone supports this policy, particularly those who did not witness the miserable state of Zurich before these measures were introduced (addicts using drugs in public, used syringes scattered around public parks, etc.). Still, it is a truly rational system that considers the interests of both addicts and the general public, and takes realistic, balanced measures without clinging to ideals.



**Fig. 2** Street in a residential area of Zurich.

### 3. 2 Agreement on tax increases

The financial collapse of Swiss Air became a hot topic of discussion during my stay, and the citizens of Zurich state decided by referendum to provide public money to help rebuild the airline. Citizens of the city also voted in a number of other referendums to approve the use of public funds for purposes such as providing drugs to registered addicts (as discussed above), providing financial support to a sister city (Kunming, China), expanding the city's zoo and building new schools. This is remarkable, given that such spending tends to drive up taxes. Even accounting for the fact that the government clearly and openly discloses the objectives and advantages of proposals, the large number of people who are prepared to vote for increasing their tax burden reveals a remarkable level of civic consciousness.

Other things I observed were that cars always stop for people standing at pedestrian crossings, and that people naturally offer to help others with baby strollers or elderly people carrying luggage to get on and off buses. People also re-use their own bags when they go shopping, and supermarkets use very few product trays in order to minimize packaging waste. I could relate countless other similar examples. I couldn't help feeling, however, that this kind of civic morality is sometimes taken to oppressive lengths.

### 3. 3 A serious defense system

In Switzerland, all housing is required to have a shelter or basement for defense purposes. The university apartment for guest researchers where I stayed was no exception (**Fig. 3**). At the age of 20, all males must participate in a basic military training program (15 weeks). They must continue to give two weeks of military service every two years up to the age of 42. Furthermore, each household in Switzerland maintains a store of weapons and food provisions in case of an emergency. Rather than taking superficial measures to address the threat of invasion by a neighboring country, the Swiss government has developed and implemented a

serious self-defense system with the full participation of citizens. National referendums proposing the abolition of the military were held in 1989 and 2001, but each time citizens opposed the move (by an overwhelming 78.1% in 2001). This is another indication of the great civic consciousness of the Swiss.

### 4. Final words

This concludes a brief personal account of my experience in Switzerland. I can honestly say that throughout my stay, I was continually overwhelmed by the logic and rationality of the place, which was far greater than I had imagined. Although the reality was not entirely as positive as it may appear in my presentation here, and there may be plenty of negative aspects to the Swiss way of life, I would like to apply some of the more positive concepts to my own lifestyle.

I am grateful to Ms. Yuko von Allmen of Lengnau, Switzerland, for her information regarding Zurich's governmental policies and systems.

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**Fig. 3** Shelter at the apartment where I stayed.