

## LETTER FROM JAPAN(10):

# A PILGRIMAGE WITH GENJI

A science writer's personal struggle to understand the Japanese, their institutions and their way of thinking

BY JOHN H. DOUGLAS

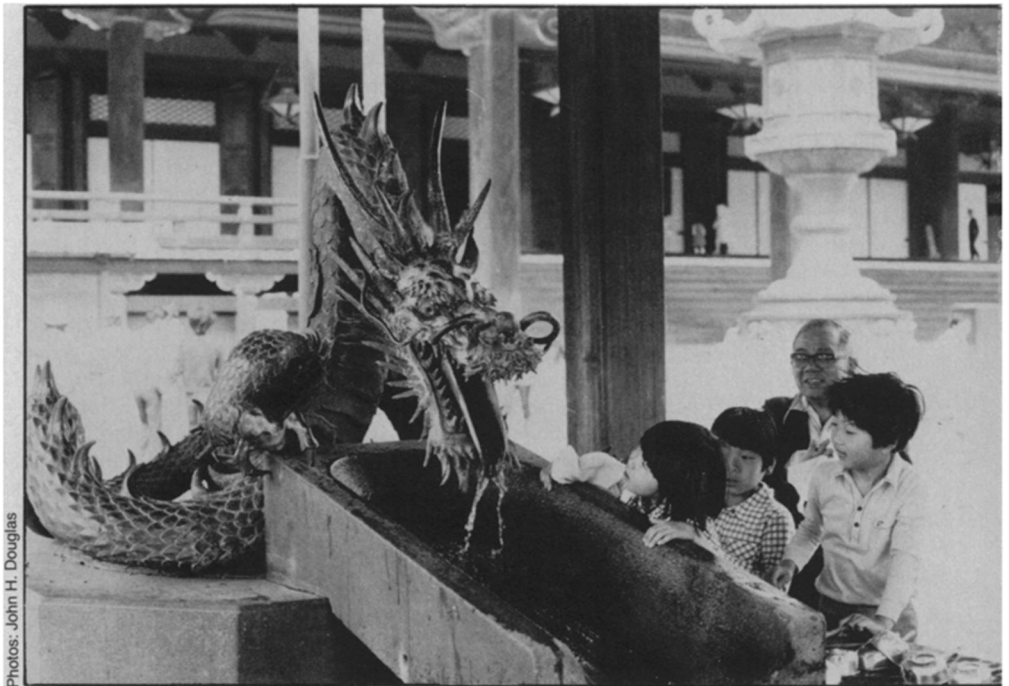
"Genji-san, what *is* the matter? You haven't said a word to me since lunch." The day had begun at 5 a.m. after a night of only three hours' sleep, and things had been going downhill ever since. Now, late at night, I was sitting with my usual discomfort on a Japanese bus on the way to yet another hotel, my knees cramped against the seat in front. Nine months of living here had sensitized me enough to realize that something was seriously wrong — that somehow I had again lived up to the Japanese stereotype of a "Western Barbarian" — but I didn't yet know which of the thousand niceties that bind together Japanese society I had apparently violated. It must have been a good one.

In the next seat my companion sulked in silence. We were traveling as the local support team for an American camera crew filming a science documentary, and several weeks of working closely together had warmed our professional relationship into what I had hoped would become a lasting friendship. Such a development would be a rare privilege, for many Japanese are exceedingly reticent toward anyone from outside their own small social circle, especially a foreigner. Finally he growled, "You shouldn't talk about money and food all the time!"

I was stunned. I still don't know what he meant by the reference to money — after all, I had volunteered for this junket as an unpaid consultant — but the mention of food reminded me of what I had thought was a trivial argument over lunch. We had been on the road eating irregular meals for several days, and when I had finished today's delicate Japanese-style luncheon I was still seriously hungry — and said so. Over Genji's objections I had ordered dessert; was that what was bothering him?

"We have an expression," he began coldly: "'A hungry samurai picks his teeth.' When a Japanese is uncomfortable he says nothing."

*This is the concluding article of a series on science and technology in Japan by contributing editor John H. Douglas who has been living in Tokyo as a Fulbright Research Journalist. His is now SCIENCE NEWS's West Coast Editor, based in San Francisco.*



*The diversity of Japan: Children in Western clothes perform ancient Shinto purification ritual at a Chinese-style fountain before entering a Buddhist temple of mixed Chinese and Japanese architecture for ceremonies that originated in India.*

"Well a hungry American orders dessert," I replied, rising to the argument. But it was clear that something else was bothering him more. "Are you still upset about that scientist?"

Genji exploded. "You don't say such things to a *sensei* [honored master]. You treated him like a servant!"

A thousand years of tradition suddenly loomed between us. I was talking to the grandson of a sword-carrying samurai — two short generations away from a time when the slightest hint of disrespect meant instant death. Even today the average Japanese enters an unfamiliar situation virtually in a state of nervous paralysis, for fear that he will make some blunder and "lose face." Innocent intent makes no excuse; explanations make no amends. No friendship would blossom on this trip.

Earlier that day I had been interviewing a Japanese scientist at one of the laboratories we visited. He had worked in the United States, spoke good English, and seemed unusually comfortable talking to an American journalist. At the end of our conversation I mentioned that I had been carrying around a very important postcard, already stamped, for three days and hadn't seen anyplace to mail it. Could he please drop it in the office mail for me?

The scientist said "sure" and was about to take the card when Genji jerked it out of my hand. Although I was a bit surprised, I still didn't understand the gravity of the

situation when Genji lectured me about "knowing your place." Since he obviously felt responsible for my actions, I even sought out the scientist later to apologize. I just couldn't believe such a small, unintentional misstep could destroy all the trust and confidence we had both worked so hard to build up.

But, except in the strict course of business, Genji never spoke to me again.

Anthropologist Ruth Benedict said it best, in the opening words of her classic post-war study *The Chrysanthemum and the Sword*: "The Japanese were the most alien enemy the United States had ever fought in an all-out struggle." Some 30 years later, my own overwhelming impression in leaving Japan is that now the Japanese are the most alien ally the United States has ever had to deal with in the complex struggle to create a stable international order. And this sense of alienation is only the beginning. Within the next decade, at least a half dozen other countries, now called "developing," will join Japan in challenging Western preeminence in trade, technology and science. Their cultures are likely to prove even more alien to Western understanding than that of the Japanese.

On a personal level, I leave Japan with so many mixed feelings that I might as well just call the whole experience a pilgrimage — a quest to understand a foreign culture that led mainly to new discoveries about

myself. Superficially, I again had little trouble adapting to life abroad, especially in a country that offers so many courtesies in daily life and the delightful tradition of sweaty camaraderie with one's neighbors in the evening at the public bath. But, on a deeper level, the Japanese in general proved as chary as Genji (whose real name I have disguised under a literary sobriquet) and I leave without any sense of having really penetrated the culture in any personal way.

Professionally, however, I'll be more bold. After a few months of getting to know the other foreign correspondents in Tokyo, I suddenly realized I was the only one concentrating on science. That came as quite shock: No wonder Americans have been so surprised by Japanese technological achievements and industrial productivity gains. The coming challenge could have been predicted years ago if anyone had examined the research efforts of Japanese laboratories. Japan has had the fourth largest R&D budget in the world for almost a decade and just passed Germany to become number three.

But I believe that another, more subtle, danger of misunderstanding is now appearing. Too many scientists in Europe and the United States assume that their craft is truly supernatural, that research is pursued in the same manner, toward the same goals, in Japan and other non-Western countries. On closer examination, however, a critical difference in emphasis becomes apparent: The main effort in Japan and the more advanced developing nations is on applied, rather than basic, research. Scientific work in these countries is still largely dependent on a constant stream of fundamental discoveries and innovative techniques from abroad.

In the early stages of development, such an imbalance of research funding is probably appropriate, just as Western industrialized nations were relatively tolerant of questionable Japanese trade practices during the early post-war reconstruction period. However, now that Japan's commercial strength has grown large enough to directly challenge the economic well being of competing nations, demands are growing that the Japanese adhere more strictly to conventional rules of practice.

The same sort of reaction can be expected to arise in scientific circles, too, if the Japanese do not play a more active, cooperative role in exploring the frontiers of research. Perhaps the best measure of current technical dependence is the so-called "balance of technology trade," which shows Japan paying four times more for rights to use foreign technology than it receives for rights sold. Whereas most basic research in the United States is government funded and is designed to "spin off" ideas that can be used for practical ends in industry, in Japan industry sponsors most of the research and this is largely geared to "spin in" ideas developed abroad.



*Bustle and contemplation: The Japanese combine a hectic daily life with moments of serene contemplation, while occasionally indulging ancient superstitions as seen in fortune-telling papers tied to a temple tree.*



Photos: John H. Douglas

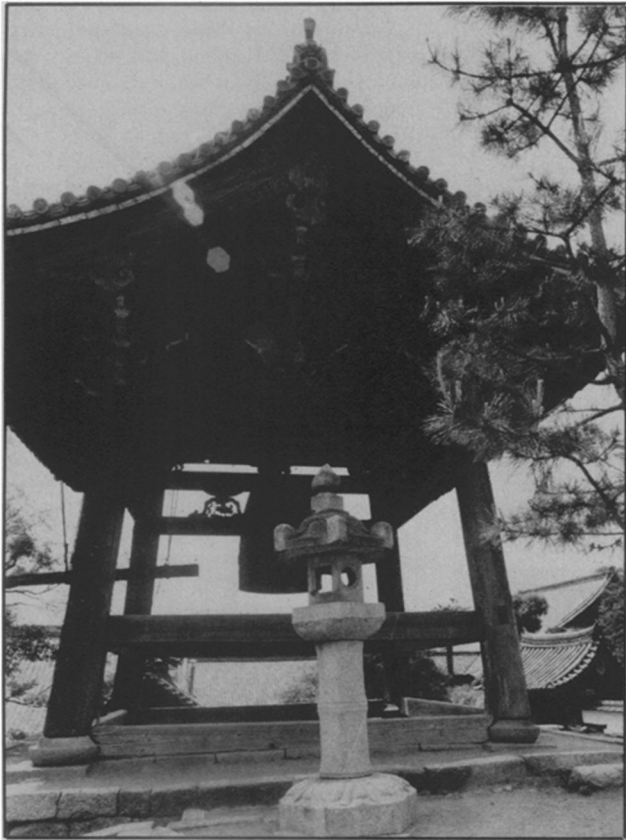
Already the situation is becoming critical in a few fields where Japanese technology is well advanced but where their willingness to share their knowledge remains somewhat retarded. In a devastating article entitled "Japanese Spies in Silicon Valley," *FORTUNE* (Feb. 27, 1978, p. 74) details how a relatively free flow of technical information in the semiconductor industry is threatened by a Japanese attitude of taking ideas without sharing their own developments in return. Fortunately, there are some signs that this traditional attitude may be changing, as seen in the recent suggestion by Prime Minister Fukuda that Japan and the United States cooperate on the development of fusion energy.

This complex problem of understanding, sharing and communicating goes far beyond the narrow interests of the scientific or commercial communities. In the words of Harvard professor Edwin Reischauer: "It is indeed an irony — perhaps even a tragedy — that the Japanese, while possessing the world's most global economy, should at the same time be among its psychologically most parochial peoples. ... [They] are renowned for being silent participants in international conferences and smiling but inarticulate visitors in the offices of their counterparts abroad." To understand the reason for this parochialism, one must examine Japanese society itself.

Upon introduction, if one asks an American who he is, he will likely reply in terms of what he *does* — that is, his profession. Ask a Japanese, and he is likely to reply in terms of what *group* he belongs to — his company or some particular department. In university research, for instance, the basic group is the *koza*, consisting of a professor, an associate professor, some assistants and a technical support staff. Each *koza* is funded separately and functions almost independently, with each worker making a virtual lifetime commitment to this particular group.

The implications for how science will actually be conducted under these circumstances are striking. Such independent groups lend themselves ideally to small-scale projects in a narrowly defined discipline, aiming toward a distinct goal. Unfortunately, the mainstream of scientific research has been shifting rapidly toward larger projects, involving temporarily united teams of scientists drawn from several disciplines, working toward ends that are becoming progressively harder to predict. The reason for this increased complexity is clear: As one American physicist puts it, "The easy questions have already been answered."

More subjective problems also arise in a *koza* system. A brilliant young researcher has no quick route to the top of his profession, but must patiently wait his turn to eventually succeed his *sensei*. Similarly, disagreeing openly with one's superior is absolutely unthinkable, so scientific dis-



*The traditional bell that is struck by a person approaching a temple to get the attention of the gods.*

*One of the oldest pagodas in Japan, in Nara (right).*



cussions proceed as much along the lines of loyalty as of logic. Says Nobel laureate Leona Ezaki (who left Japan to work in the United States): "Because there is no real ethical receptivity for the dialogue in Japan, creativity itself is hampered. The lack of meaningful dialogues is one major reason why Japanese scholarship has only developed in spots and segments."

This then is the dilemma facing Japan in science, in trade and in international relations: Old forms, old attitudes no longer suffice. Under new circumstances, even in the midst of unprecedented success, great assets can suddenly emerge as great liabilities. The very characteristics of group loyalty and personal submission to authority that helped Japan organize to become the first non-Western industrial giant now threaten to bring it into grave conflict with its closest friends. In research, particularly, individual scientists will have to be given greater freedom to express their own opinions and take initiative apart from a small group; and collectively, the Japanese technical establishment will have to share more information and resources with their colleagues abroad.

Lest these conclusions sound too ethnocentric, however, it should also be obvious that the rest of the world has a lot to learn from Japan. If much Japanese technology has been based on ideas adapted from abroad, the organizational skill evidenced in the adaptation has frequently been the best in the world. If many Japanese researchers bridle under the constraints of the *koza* system, the system

has at least provided the opportunity for some of them to devote their lives to exceptionally long-ranged projects, without having to worry about demands to quickly "publish or perish." And although R&D funding has been weighted too heavily toward applied research, the work has often been superbly accomplished, offering the main reason to attempt this series of articles in the first place.

There is also much to learn from Japanese society. Americans, as a people, want to be liked; the Japanese want most to be respected, and I found that the experience of living in Japan ultimately commands that respect. If the society is not particularly open to strangers, at least I never felt in danger walking Tokyo streets in the middle of the night. The trains are terribly crowded, but I found I could set my watch by the time they arrived. An ugly urban sprawl continues to spread across the once picturesque landscape, but while walking through an old cemetery one bright spring morning I found that another passerby had kept alive the ancient Japanese tradition of aesthetics in daily life: A beautiful sprig of cherry blossoms had lovingly been placed in the outstretched hand of a laughing statue of the spirit Hotei.

And so, finally, I am brought to appreciate the wisdom of Sophia University psychologist Maurice Bairy, who once advised me about my pilgrimage, "The point is not to understand the Japanese, but to sympathize with them." Perhaps no other country has gone through such wrenching changes during the last century, and even

more changes will be demanded in the future. To appreciate what that means to the average Japanese, who are at once so proud of their modernism and so nostalgic about their rich heritage, one might best consider the following incident from what is probably the most beautifully written book ever penned in English by a native-born Japanese, *A Daughter of the Samurai*, by Etsu Sugimoto (Tuttle Books):

One evening, in the late 1800s, little Etsu came home to find both the Buddhist and Shinto shrines of the house sealed. When she asked her grandmother the reason for this strange, almost frightening occurrence, she was told:

"Your honorable father has ordered his household to eat flesh [most Japanese at that time ate no meat].... The wise physician who follows the path of the Western Barbarians has told him that the flesh of animals will bring strength to his weak body and also will make the children robust and clever like the people of the Western sea. The ox flesh is to be brought into the house in another hour and our duty is to protect the holy shrine from pollution."

When supper was ready, however, the grandmother did not take her usual place of honor at the head of the table, and when Etsu later crept to her room to ask why, the grandmother replied simply, "I would rather not grow as strong as a Westerner—nor as clever.... It is more becoming for me to follow the path of our ancestors."

How easy it is to sympathize when many Japanese today express the same feelings. □