

# The Last One To Go

*by Mary Steinbach Ulbrich*

## Preface

### Japan Enters the Modern World: Some Context for Katsuma Dan's Career

The history of Katsuma Dan and of his family reflects several themes of Japanese history from the Meiji Restoration of 1868 to post-World War II. After over two centuries of nearly complete self-imposed isolation (1615-1854), Japan was quickly forced to open the country to foreigners after New Bedford-based Commodore Matthew C. Perry sailed into Edo (now Tokyo) Bay in 1853. Japanese leaders, impressed by Western power, soon sent boys and girls, as well as older Japanese, abroad to get a Western education. Although several Japanese universities opened during this period, Katsuma's father, Takuma Dan, studied mining engineering and graduated in 1878 from the Massachusetts Institute of Technology.

Politically, Japan seemed to be heading in a democratic direction in the late 19th and early 20th centuries, with an increasing expansion of voting rights for men and a constitution modeled on Germany's. However, hierarchy and descent from former samurai families were still central to status, even though samurai had ceased to exist as a class by 1876. Takuma Dan, who became a major industrial leader, was elevated to baron in 1928. From the late 1920s the militarists became increasingly powerful and ruthless. They looked back to the samurai tradition, revered the emperor as a god, and saw the Japanese as destined to rule over other, "inferior" Asians. The phrase "government by assassination" has been applied to Japan in the 1930s. Several prime ministers were killed because they were seen as too liberal or opposed, even mildly, to the militaristic

expansion of Japanese power. In 1932 a fanatically nationalistic Buddhist sect, the Blood Brotherhood Band, assassinated the financier Junnosuke Inoue and Takuma Dan, then chief executive of Mitsui, the largest Japanese conglomerate, as representatives of the capitalist-internationalist order. During this turbulent period, however, intellectual contact with the West continued; thus Katsuma Dan was able to spend summers at Woods Hole doing scientific research until 1940. He became a corporation member of the Marine Biological Laboratory in 1936. He returned to Japan with his wife and family after the outbreak of World War II but before Japan's attacks in Southeast Asia and on the U.S.

At the end of the war, under the watchful eye of the U.S. occupying forces commanded by General Douglas MacArthur, Japan adopted a new, more liberal constitution: it contained the famous Article Nine, in which "the Japanese people, forever, renounce war as a sovereign right of the nation." The occupation lasted until 1952, but cultural and academic exchanges between Japan and the U.S. resumed soon after the end of the war. From 1951 on, Japanese scholars, to their amazement and gratitude, were invited to study at American universities as Fulbright Scholars. Jean and Katsuma Dan, with their five children, returned several times to Woods Hole after the war to resume research and friendships.



Katsuma Dan on the beach at the Misaki Marine Biological Station.

### **Katsuma Dan's Scientific Background and His Research in Fundamental Cell Biology**

Katsuma Dan graduated from the University of Tokyo in 1929 and received his Ph.D. from the University of Pennsylvania in 1934. He and his wife worked at the Misaki Marine Biological Station outside Tokyo. He was a professor of biology at Tokyo Metropolitan University and served as its president from 1965 until 1972.

Katsuma Dan's scientific work focused on using marine invertebrates as model organisms to study fundamental questions in cell biology and embryonic development. He and his students, using light microscopy, focused on direct observation of cell behavior and discovered many of the fundamental aspects of fertilization, development, and morphogenesis. Dan was particularly interested in mitosis, a

process that forms two nuclei immediately before a cell divides. To settle a long-standing debate over the existence of a mitotic spindle, a complex apparatus that pulls packages of DNA into the two nuclei, he encouraged his student Shinya Inoué to construct polarized light microscopes and look for evidence of organized polymer networks in living cells. Together with Daniel Mazia, he was the first to isolate the mitotic apparatus and subject it to biochemical study. This work demonstrated conclusively the existence of the mitotic spindle and initiated the modern biochemical study of mitosis.

Olivann Hobbie



## The Last One to Go

In the hallway outside the reading room of the MBL/WHOI library on the second floor of the Marine Biological Laboratory's Lillie Building hang three framed documents. The most impressive is a handwritten poster which is signed "the last one to go." Another is a letter from the U.S. Commander of Submarine Squadron Two addressed to the Woods Hole Oceanographic Institute (sic) and dated October 21, 1945, stating how he had come in possession of the poster from the doors of the University of Tokyo's Misaki Marine Biological Station. The third document is a typed letter dated January 16, 1946, from Katsuma Dan (also known as Kadie) in Japan to Don Costello, his friend and colleague at MBL.

My family's connections with the Dan family go back a long way. We came from New York to Woods Hole in the summers so that my father, Dr. H. Burr Steinbach, could work at the MBL. Katsuma Dan, a native of Japan, was an embryologist and cell biologist. He had worked at the MBL with my father and others before the war. Shinya Inoué, who recently retired after several decades at MBL, had been a student of Katsuma in Japan. He told me that because of Katsuma, "a new life of hope in scientific research ... started to percolate in me."

Katsuma met his wife, Jean Clark, also a biologist, in Woods Hole. Susie Steinbach, my mother, and Jean met in Woods Hole in the 1930s and remained close friends.

The Dans lived in Japan throughout World War II, continuing their research and raising their five children. They returned to Woods Hole several times after the war, as did their children. I remember the summers when they lived on Hyatt Road, just up the hill from us.

I have a letter (three single-spaced pages, typed on both sides) that Jean wrote to my mother dated August, 1940. It reads in part:

Kadie is at present in Tokyo learning microinjection techniques....Last winter he bought the last Chambers micro manipulator in the country, only the left-hand part is still riding around on the Southern Manchurian Railroad, I think. This country, by the way, is fuller than ever of Germans, and I get a terribly funny embarrassed complicated feeling whenever I bump into one of them....Kadie is back from Tokyo with a bunch of gloomy reports on the [national situation], but also the news that the left-hand part of our micro manipulator sneaked into the country masquerading as a part of some apparatus ordered by the army...

...judging by the rumors...in Tokyo clubs...and by Katsuma from several bankers, things are due to go from bad to worse here, and we will most likely find ourselves back in the dear old European triangle [Axis powers] on account of we have to get gasoline from somewhere...it certainly means that I won't be able to come to Woods Hole next summer...not to worry about us, whatever the newspapers say, because, for one thing, they always make the story much sadder than it really is, and for another thing, we are very insignificant and well out of Tokyo, where most of the most unpleasant things take place.

A letter my mother wrote to Jean and Kadie Dan that was postmarked in New York, November 24, 1941, came back stamped, "Return to Sender Service Suspended." In this letter my mother said, "If only I didn't read the newspapers I could be perfectly happy. It's a mighty fine thing to have a good store of personal happiness these days because that's about

This is a marine biological station with a history of over sixty years.

If you are from the Eastern Coast, some of you might know Woods Hole or Mt Desert or Tortuga.

If you are from the West Coast,

you may know Pacific Grove or Puget Sound Biological Station.

This place is a place like one of these. Take care of this place and protect the possibility for the continuation of our peaceful research.

You can destroy  
the weapons and  
the war instruments  
But save the civil equipments  
for Japanese students  
When you are through  
with your job here  
Notify to the University and  
let us come back to our  
scientific home  
The last one to go

Katsuma Dan's poster left on the door of the Misaki Marine Biological Station.





Jean Clark Dan and Katsuma Dan in their laboratory at the MMBS.

the only kind there is.” Also, “Burr is the new editor of the Biological Bulletin...so we’ll certainly be going to Woods Hole for quite a few summers to come...”

The October 1945 letter of the commander, Captain L.S. Parks, arrived at WHOI by way of Squadron Two’s fleet post office in San Francisco and the Commander Submarines, Atlantic Fleet, New London, Connecticut. It included this message:

Gentlemen:

I am enclosing [a poster] which I removed from the doors of the University of Tokyo

Oceanographic Institute while units of this command were engaged in demilitarizing numerous midget submarines located in the area. I thought that [the poster] might be of interest to you to realize that your fame had spread even to enemy territory. This station is located at Moroisi Ko on Sagami Wan.

The letter Katsuma Dan wrote to his colleague Don Costello on January 16, 1946, reads in part:

In the last four years, we simply had lots of things [to do]. But ducking under bombs was not so bad. Rather it was a great excite-

ment. Hide and seek at the expense of your life can't help being exciting. There was, however, an awful side to it too.

During the first three years of the war, our everyday life was not fundamentally affected and we could work regularly. Then, in January, a year ago from now, the Japanese navy took over the station and changed it to a temporary submarine base. As a result, the laboratory moved to a near-by village. Although, we succeeded in getting a wooden building built, we had a hard time to install sea-water pumps and so forth. When the war was over, the American troops occupied the station, for the reason that the Japanese navy had been there.

When American officers came there for the first [time] to take over the place, I went there. It was a funny experience. On one side of a long table three American officers and I were sitting. They served beer and canned asparagus with tomato ketchup. This slightly cute menu made me smile.



Katsuma Dan continued his research at MMBS near the end of his tenure as president of Tokyo Metropolitan University.

But, oh boy, the both sides were pretty much excited. I am sure they were really scared of each other. They yelled whatever they wanted to say at the top of their voice but never listened to the other side.

And an interpreter translated off and on, paying no attention whether it made sense or not, I was partly absorbed in watching the chaos and partly in the asparagus and was still partly absorbing the beer. Neither side understood the other. But to start with neither side knew what they were going to say. Toward the end, I was loudly laughing which nobody noticed. Somehow the meeting came to an end. So I started to work.

I stuck to a major and explained to him that this building originally belonged to the University etc., etc. In ten minutes, he began to see the situation. As soon as I saw the sign of dawning in his chaotic mind, I ran back to the building, wrote a poster asking soldiers to take good care of the place because it is a research institute, pasted it on the wall and took leave from the bak [sic] door leaving the noisy bunch there. There was no way to know what influence the poster exerted on the American soldiers who came there. But to my greatest surprise, in a copy of over-sea edition of *Time* issued in the beginning of December, I came across my own words all printed. Moreover, it had a title "Appeal to Goths."

Katsuma Dan had posted the message that he had hurriedly composed on brown wrapping paper with brush and Chinese ink. It did indeed make a positive appeal to the U.S. military; on the last day of 1945, Dan was finally summoned by an officer of the U.S. First Cavalry and handed the document

releasing the Misaki Marine Biological Station back to the University of Tokyo (Toh-Dai).

Dan's tone in this hastily written poster conveys his love of science and his justifiably optimistic belief that the American military would respect a Japanese scientific station even as they would respect an American one.

This is a marine biological station with her history of over sixty years.

If you are from the Eastern Coast, some of you might know Woods Hole or Mt Desert or Tortugas. I

If you are from the West Coast, you may know Pacific Grove or Puget Sound Biological Station.

This place is a place like one of these.

Take care of this place and protect the possibility for the continuation of our peaceful research.

You can destroy the weapons and the war instruments

But save the civil equipments for Japanese students

When you are through with your job here

Notify to the University and let us come back to our scientific home

The last one to go

## About the Authors

Mary Ulbrich first came to Woods Hole in the summer of 1942, when her parents, Burr and Susie Steinbach, made their usual trip for her father to work at the MBL (and later at WHOI). Summers meant Science School, bass and scup fishing, working in the MBL mess hall across from the aquarium, working at the summer center at the National Academy of Sciences when it was on Church Street, and volunteering as a guide for MBL and WHOI summer tours. These days Mary and her husband spend delightful summers in Woods Hole and enjoy winters in Blue Hill, Maine.

Olivann Hobbie has lived in Wyoming, Utah, California, North Carolina, Alaska's Brooks Range, Norway and Sweden, settling in Falmouth with her scientist husband and three sons in July 1976. She taught English and non-Western cultures for 39 years at Falmouth Academy. She traveled to Japan in 1994 on a trip for teachers sponsored by the Japan Foundation and the Five-College Center. In 1999 she was one of 200 U.S. K-12 teachers sent to Japan on a Fulbright Memorial Fund Scholars program established by the Japanese government as a thank-you for the U. S.'s own generous postwar Fulbright program. In 2013 she went to Sapporo on Hokkaido to visit former Falmouth neighbors, who had been associated with WHOI, as well as the couple who hosted her in 1999.

## Acknowledgments

All photos of Misaki Marine Biological Station courtesy of Dr. Mariko Kondo, MMBS.