

*In 1992, Mamoru Mohri became the first Japanese national to fly to space as a payload specialist. Eight years later, he made a second trip into space. And now, his pursuit of "future wisdom" and "universology." All along, he was wrestling with his responsibility as a pioneer.*

### Going Back to One's Roots

Recalling how he felt as flew into space, Mohri spoke of "the soot of Yoichi, the darkness of space." The darkness of space is unlike any black color you see on earth. As a child, Mohri occasionally had to clean the chimney of a coal stove during the winter in Yoichi, Hokkaido. The darkness of space he saw from the space shuttle resembled the color of soot he battled with as a child in his hometown of Yoichi. As he thought about this resemblance, it occurred to him that he had finally realized his dream of wanting to go to space one day.

The public, however, was not going to give the pioneer any time for such contemplation. In particular, his "space lectures" conducted by establishing a connection between the space shuttle and audience down on earth were hugely popular. After he returned from his mission, he was flooded with invitations to conduct lectures reenacting the space lectures. In 1993, he did 150 of these lectures in a year. He told himself that he would do this for at least three years, as a way of giving back. At this time, however, he had actually already made up his mind on what he wanted to do next: to go back to space one more time.

"When I was doing my space lectures," he said, "I kept going back to my roots and thinking why I had wanted to go to space so much in the first place. Around this time, I was doing the navigator for NHK's TV show 'Life's Journey of 4 Billion Years,' and it kind of got me thinking that maybe life's evolution is being driven by its own will. I thought that by giving another try at a space mission,

I would be able to examine this thought more deeply. This feeling got stronger and stronger by the day."

People wondered why he would want to throw away the glory he was enjoying and make another challenge from scratch. But his pride and his desire to challenge himself made him firm in his resolve. Eight years after his first space mission, he was given a chance to take another trip to space in 2000. The mission this time involved using a synthetic aperture radar to obtain data for creating a three-dimensional map of the Earth's land, while using a high-definition TV camera to observe the Earth, something that had never been done before.

### Challenge to Integrated Wisdom Based on "TSUNAGARI"

Mohri named his second mission "Earth Mahoroba." "Mahoroba" means a haven where one can live in peace. He came up with this name when he realized that this blue planet that floats in the vast darkness of space is the only place where humans can live, and as such is irreplaceable. With the countless species existing as an inseparable being, we ourselves would not be able to survive. Yet, despite this truth, only humans behave as if they were the rulers, and they destroy the diversity of life and nature. As Mohri says, "You can't see national borders from space." Even as in human society, differing values keep giving rise to new conflicts, we are all on Space-ship Earth, sharing air, water, and other

resources necessary for our survival.

How is it possible for us humans to make Earth a mahoroba? This question led Mohri to an interdisciplinary study of future wisdom, or "universology." The National Museum of Emerging Science and Innovation, where Mohri serves as director, is attempting to establish universology with "TSUNAGARI" (meaning "relationship" in Japanese) as a keyword.

"The question is: how can we ensure sustainability for humans? Humans have created crises in society by thinking only within the framework of science, politics, business, religion, art, and so on. Our aim is to create wisdom that anyone can share, which is based on the assumption that everything from air and DNA to history all exist within TSUNAGARI. We are seeking to establish a method for this."

Recently, the focus has been on artificial intelligence. "It is possible that artificial intelligence will derive a solution to global issues. When that happens, will humans go beyond their ulterior motives and decide to evolve toward mahoroba? That would be interesting from the standpoint of universology as well."

TSUNAGARI is a grand thought that also has things in common with Mandala. Creating a "wisdom leading to mahoroba" that anyone can share is no easy task. "That's why it's fun," he said with a smile. An awareness of an issue acquired in space, a place of ultimate objectivity. It all started by asking himself the question, "Why space?" It has been a journey of realizing his responsibility as a pioneer.

### Mamoru Mohri

Born 1948 in Yoichi, Hokkaido. Doctor of Science. Became the first Japanese to be chosen as an astronaut in 1985. Flew to space twice, in 1992 and 2000, aboard space shuttle Endeavour. Conducted space experiments and observations for the creation of a three-dimensional topographical map of the Earth. Appointed as the Director of the National Museum of Emerging Science and Innovation in 2000. Conducted a deep-sea experiment in SHINKAI 6500 in 2003. Visited Antarctica in 2003 and 2007 to make the world's first observation of the total solar eclipse and to participate in a 50 year anniversary of the opening of the Showa Station. Mohri is an author of many books, including Gift from Space (in Japanese) and Learning from Space: Introduction to Universology (in Japanese).

Costume coordination: JUST IN TIME Seiji



# Mamoru Mohri

*Theory Plus Experiment Makes Science Interesting*