## What was founded in those days? —Collective intelligence in the ancient era of Japan—

I am continually visiting the disaster zone of the Great East Japan Earthquake and Tsunami\*1 which covered a longitudinal distance of 500 km and killed about twenty thousand people, displacing another four hundred thousand evacuees. I continue to visit the region due to my chief role at JMA headquarters in dispatching some 2,000 medical teams comprising about 8,000 medical workers under the names of JMAT (Japan Medical Association Team)\*2 and JMAT II.\*3

I live in Iwaki city, where my medical facilities are located—only 50 km from the TEPCO Daiichi Nuclear Power Plant, which exploded. At any rate we survived with low-level radioactive contamination. It is still quite meaningful to look at the realities of each of the other regions affected by this terrible natural disaster. If I compare the regions affected by the disaster, with or without nuclear trouble, there can be found the same scenes of ruins with traces of severe damage to buildings near the seashore where the tsunami struck. The damage was not as severe in adjacent regions, when there was no tsunami but only the earthquake. Accordingly, in the one town we can observe at a glance such surrealistic coexistences as intact zones next to totally damaged zones where houses were completely washed away.

Two years since the Revelational disaster, there are still nearly three hundred thousand people living in temporary housing awaiting the rebuilding of their townships. Even in the center of disaster zones, I can find upbeat efforts of people working for reconstruction with trial open air markets, the reopening of restored museums, and public activities.

There are quite different scenes of ruins without any trace of humankind in the evacuated towns, whereas in central areas, persistent efforts are being made to stabilize the four exploded nuclear power reactors, with thousands of workers sent from my city, Iwaki, to the crippled plant every day.



Matsushima Bay (Photo by Atsuko Ishii)

Throughout history, there have actually been repeated earthquakes and tsunamis along the Pacific Coast of Eastern Japan. The greatest of those recorded were the Great Jogan Earthquake and Tsunami of July 9, 869, and the Great Keicho Sanriku Earthquake and Tsunami on December 2, 1611.

After the 1611 earthquake and tsunami, the Feudal Lord Masamune Date, who lived in Sendai, the biggest city in the Northeastern region of Japan, decided to send his vassal Samurai Tsunenaga Hasekura, to the Roman Catholic Pope in the Vatican, far across the Pacific Ocean and the Atlantic Ocean via Mexico, which was then under the control of the Kingdom of Spain. That great journey from 1612 to 1620 was successfully accomplished with Hasekura's return to Japan.

There is a huge Buddhist temple, Zuigan-ji, on the Pacific Ocean coast in the Matsushima region which was founded in the ninth century and extended to its present construction under the orders of Lord Masamune Date. This temple remained intact in the Great East Japan Earthquake and Tsunami because more than two hundred islands played a considerable role as natural seawalls. This place is famous for its beautiful scenery, known as one of Japan's Three Great Views, that includes these hundreds of islands in Matsushima

<sup>\*1</sup> The Great East Japan Earthquake: March 11, 2011.

<sup>\*2</sup> JMAT operation concluded on July 15, 2011.

<sup>\*3</sup> JMAT II: on July 16, 2011 onwards.

Bay. The location also provided an excellent safeguard and was of strategic importance.

I am able to find old shrines and, in some instances, Buddhist temples at considerable heights, and thus they have been preserved intact in disaster zones despite their coastal location. They are significant for not only their function as a holy place to pray but also other functions in the local fishermen's community; the custom has been maintained of not only family members but also community members gathering in at their local shrine when somebody does not come back from sea to burn a beacon fire through the night, praying for him to come back. If it happens, the same act is performed in the adjacent villages, creating a chain of beacon fires along the seashore. Shrine grounds are also used for holding festivals where local residents gather and as shelters in disasters, functioning as a multipurpose plaza in the community.

The small Shinto shrines tend to be maintained by the traditional community base and Buddhist temples tend to be the later introductions, still, the latter are likely to have more than a thousand years of history. I must add that both

these forms of religious architecture developed over a history of more than one thousand years in a place-to-place fashion, and in some instances there was even political pressure to use both styles in the one structure.

In a way, I am noticing characteristics of collective intelligence (CI) in the ancient era of Japan in the long-practiced traditional custom of certain communities of living adjacent to the seashore with all the merits and risks of the sea. This is a prototype for CI in the form of inherited customs without recorded documents—a forerunner to CI in our era developed more than one thousand years before the appearance of computer systems.

This type of CI was once hidden away from the eyes of the Japanese public during the modernization of Japan and economic development over the past 60 years, but it is again becoming obvious since the instantaneous disappearance of modern houses and streets in the disaster zone.

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