

Avoiding the Galapagosization of Japan's *Zeitgeist*

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There is a word *zeitgeist*. It could be called the values that represent an era, or the shared knowledge of a society.

Science and technology are not unconnected to this *zeitgeist*. Rather, they have evolved with the influence of the *zeitgeist* and will continue to do so in the future. If we ignore or belittle the *zeitgeist* and incorrectly ascertain the direction of its evolution, the evolution will be idiosyncratic.

The Galapagos Islands made famous by Darwin's *The Voyage of the Beagle* are home to biota not found anywhere else. The evolution that occurred in the isolated natural conditions of the islands, being a full 1,000 kilometers away from the continent in the Pacific Ocean, resulted in little commonality with other regions.

Commonality has significance for science and technology. It is difficult for galapagosized science and technology to enter the mainstream of the world.

What television has transmitted to us

There is a television program called "NHK Archives." The program selects the most topical masterpieces from NHK's extensive collection of programs and broadcasts them with a short commentary by guests to give contemporary context. It is aired irregularly on NHK General TV.

From November to December 2011, a program called "Nuclear Power Series" was broadcast in four segments. It was of course a program related to Fukushima. At a conservative estimate, NHK has 1,300 programs in its vaults concerning nuclear power. Although choosing representative works from among those was an eye-taxingly difficult task, NHK formed a project team around September and I participated as an OB. The broadcasts went forward with Yoko Sakurai as newscaster and me doing the commentary.

The first segment took up "(1) This is a Nuclear Reactor" and "(2) How Safe is It?" from a three-part NHK special series titled "Hidden Giant Technologies," which aired in July 1981. In response to the Three Mile Island accident in 1979 in the United States, these programs were clearly oriented toward having viewers see nuclear power, which had been a black box, as simply as possible, and even viewing them now the programs do not feel like they were made 30 years ago.

The second segment was the NHK special "Considering Nuclear Power Today," which was created in August of the same year in response to the acclaim the above series received. It featured two debaters, representing the pro and con nuclear viewpoints in a face-off. On the pro side was Kazuhisa Mori, who was the full-time director of the Japan Atomic Industrial Forum at the time, and on the con side was Sanshiro Kume, who was a lecturer at Osaka University. Both have since passed away. They had a fervent and serious discussion, and their calm debate on the core issues is still fully relevant today.

The third segment was the September 1986 NHK special "Report of the Chernobyl Nuclear Accident." It was April of that year when a level-7 nuclear accident occurred in the former Soviet Union. The program was a record of the contamination conditions in various places in Europe immediately after the accident. It included an interview with Jimina Najejda, a doctor from Belarus who came to Japan at the invitation of the Fukushima Conference held by citizens from November 11 to 13 last year.

The fourth segment was the NHK special "The Earth's Nuclear Contamination," which aired in 1995. It covered not only Hiroshima and Nagasaki, but also the Hanford site where nuclear weapons were manufactured in the United States, Mayak in the former Soviet Union, the Marshall Islands where nuclear tests were performed, the nuclear power plant accident at Chernobyl, and other sites urging viewers to realize the fact that the earth is contaminated with nuclear material. The series wraps up with the words of Barbara Reynolds, a deceased honorary citizen of Hiroshima, who said, "I am also a *hibakusha* [atomic bomb survivor]."

The gap between the programs' message and their influence

How far will the impact of Fukushima spread, how severe will it be, and how long will it continue? We are faced with a situation unlike any other in history.

The media have played a major role in promoting nuclear power. Although I certainly cannot deny this, I have nevertheless realized in investigating the archived programs that the media have also made rather valiant journalism-based efforts to take issue with nuclear power myths in appropriate ways and otherwise question nuclear power. It may sound foolish, but to me it was a sort of discovery. In actual fact, each program received a tremendous amount of sympathetic feedback from viewers after the broadcasts. There was also no shortage of encouragement for the criticism of nuclear power shown in the programs.

However, another discovery I made was that the influence of these programs was not nearly as large as the feedback. This is well demonstrated in the fact that a program criticizing nuclear power from 30 years ago is still relevant today. In other words, this means that the influence of the program was only momentary and was immediately forgotten.

What should we think about this?

With Fukushima, the situation has progressed beyond "I am also a *hibakusha*" to "We are also *hibakusha*." The weight of that reality cuts straight to my heart. "Japan is the only country to suffer the bomb" and "the elimination of nuclear weapons is the ethic of the Japanese" have come to be used almost like clichés, and they seem to have lost their meaning. Japan has run full tilt on a course of the expansion of nuclear power station, and it lives in peace under the nuclear umbrella of the United States. There

is a major discrepancy between the words and the awareness. The words are considered ideals and the awareness confirms the reality. Knowledge is needed to overcome that discrepancy between words and awareness, but that knowledge has not been adequate. Surely Fukushima has exposed that weakness we have.

It seems that the response at the time the programs were aired was swallowed up in the whirlpool of being considered slightly convincing, that “appearances and actual feelings are not the same” and “there is criticism, and then there is reality,” and the response seems to have died all too soon. This may be why it did not have an effect of people’s actions as originally envisioned for a democratic society, which would imply a debate on the selection of nuclear power.

The evolution of the *Zeitgeist*

Sorting through my book collection, I found one entitled *The Limits to Growth*. It was published almost 40 years ago in 1972. In 1968, the Club of Rome issued a warning that “environmental pollution and population growth are threatening the continued existence of human beings,” and the book was written in response to that as a future prediction by Donella Meadows, Dennis Meadows, and Jørgen Randers.

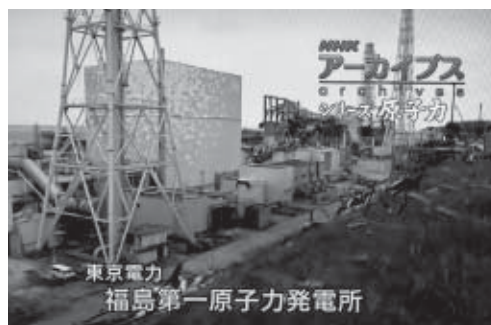
The Limits to Growth became a bestseller. We already go beyond the limits of the massive consumption of resources by human beings, sooner or later we will exceed the carrying capacity of the earth and the economy will head toward decline, we have to start recreating economic society right now in light of these facts...

There are natural things to hear these days but back then they were novel future predictions. What is important is that *The Limits to Growth* made suggestions that were taken seriously and started the movement that the basic structure of economic society needs to be changed. This has evolved into the shared knowledge and shared values of society and grown into the *zeitgeist*.

Thenceforth, statements sharing the same philosophy appeared one after another.

“Life-size technologies” are those that do not lead to a loss of control by humans even in the event that they are destroyed. The “precautionary principle” is the principle of considering countermeasures in advance for risks that are foreseen. The “polluter-pays principle” states that the source of the pollution bears responsibility for it and shall operate within limits that enable that responsibility to be born. A “sustainable economy” is one in which the current generation takes responsibility for the lives of the next generation and the generation after that, rather than considering the resources of the world to belong only to the current generation. The list goes on.

The market fundamentalism of globalization that originated in the United States has swept the world, and while competitive principles and unscrupulous money games have created disparities, it is mainly in the countries of Europe that this manner of *zeitgeist* has been forming the undercurrent of society. Although it looks like they learned the lessons of Fukushima and immediately turned on a dime to eliminate nuclear power, that is not the



From NHK television footage

case at all. It is instead a result of the continually flowing undercurrent of a *zeitgeist* that strives to rebuild economic society.

Let us strive to avoid Galapagosization

How about in Japan?

Hasn’t Japan evolved in a Galapagosian fashion, removed from the shared knowledge and values of the world, away from the global *zeitgeist*?

The goal of preventing global warming is to realize a society that is energy efficient. Japan, however, has been interpreted as driving the construction of new nuclear power plants. Under the banner of using nuclear power to cut carbon dioxide emissions, the promotion of nuclear power got a boost. However, the reality is that the increase in carbon dioxide emissions is far in excess of 10%, when the promised cuts compared with 1990 are added in, which is a rise proportional to the increase in nuclear power plant. Energy-efficient technologies for devices are advancing, but Japan is being isolated like the Galapagos Islands from the global *zeitgeist* in terms of realizing an energy-efficient structure of society.

Why is this?

One reason is the overwhelming prioritization of reality. The moment we say “we need to be competitive on the global market” or “Japan is a country without resources,” we stop thinking. Another reason is the myth of infallibility. As is characteristic of a bureaucrat-led country, past decisions are assumed to be absolutely without fault. Since past decisions cannot be overturned, thought stops, judgment stops, and action stops, with the old *zeitgeist* being dragged along with us. This results in gridlock.

I would like to see people involved in science and technology work to hone their awareness and sensitivity to ascertaining the *zeitgeist* and evolve in a way more authentic to it. We must not fall into galapagosization.

The commentary shown here is written by one of the members of the Commentary Committee of the Society, and the author is basically responsible for the contents. The Society acknowledges that this is important and worth publishing. Opinions and comments of the readers are highly appreciated.
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The *Kagaku to Kogyo* (Chemistry & Chemical Industry) Editorial is responsible for the English-translated article.