Why Eat Toxic Food? Mercury Poisoning, Minamata, and Literary Resistance to Risks of Food

MASAMI YUKI

Q1

Why Eat Toxic Food? Mercury Poisoning, Minamata, and Literary Resistance to Risks of Food

There is a curious thematic difference between the Oscar-winning documentary film *The Cove* (2009) and its official website. While *The Cove* attempts to expose the "annual dolphin massacre in a secret cove in Taiji, Japan," which "suggests a microcosm of a larger picture, man's disregard for life," as its filmmaker the Oceanic Preservation Society (OPS) puts it, the film's website seems to be more concerned with educating the public on the danger of eating mercury-contaminated dolphin meat. The website's attempt to raise public attention to food and toxicity is clearly demonstrated on the website's homepage with a short animated film clip entitled "The Hard Truths of Mercury Poisoning." In the clip, roughly the following five points are stated. First, that more than two thousand dolphins are "brutally slaughtered" annually in Taiji where *The Cove* was filmed. Secondly, that the captured dolphins are either sold to sea parks or on the food market. Thirdly, that the government tries to hide the fact that dolphin meat is highly toxic. Fourthly, that eating mercury-poisoned meat causes severe brain damage. And fifthly, that people in Japan don't know what is going on in the cove and dolphin meat is still being distributed. All those points are narrated in a little more than one minute, with animated background images shifting between a map of Japan and that of Taiji, an oceanic food chain, the chemical formula of mercury, brain damage, and dishes of sushi. What is narrated is not entirely accurate, given that the Japanese

Interdisciplinary Studies in Literature and Environment (2012), pp. 1–19
doi:10.1093/isle/iss107

Ministry of Health, Labor and Welfare issued an advisory report on the risk of consuming mercury-contaminated fish and cetacean in 2003.Also, the focus is not entirely fixed in that the clip discusses the food risk on the one hand and the dolphin slaughter on the other hand. Yet, the clip's attempt to place an emphasis on the risks of consuming mercury-contaminated dolphin meat is apparent, which makes one wonder why there is a difference between the film and its official website.

There is no doubt that the website is designed to reach a wider audience, including those living in Japan where the film has caused a cool, if not entirely antagonistic response. The OPS's attempt to encourage people in Japan to see the film is manifested in the design of the website, an example of which is the offer of a free download of the Japanese dubbed version of the film for those living in the United States, with a caption saying "Tell Your Japanese Friends." Interestingly, this message is displayed just above the film clip that I have previously mentioned, and it looks as though the two captions—one from the banner for the free download and the other from the banner for the clip—created a meta message, that is, TELL YOUR JAPANESE FRIENDS THE HARD TRUTHS OF MERCURY POISONING.

The curious shift in focus from dolphin slaughter in the film to the risk of mercury poisoning in the film's official website suggests that the issue of food safety is perceived as being more persuasive than that of dolphin slaughter. We might, therefore, ask what makes the idea of the risks involved in ingesting contaminated food a dependable framework of reference. Asking such a question may sound ridiculous in this age of shared fear and anxiety about mercury as well as radioactive contamination of the environment and food. Now that individual and societal attention to food safety has been heightened due to the Fukushima nuclear plant explosion in March 2011 and the resulting domestic and international regulations of transportation and consumption of food produced in radiation-affected zones and neighboring areas, it may sound absurd to question the risks of consuming contaminated food. Nobody would doubt such risks. Yet, the mere avoidance of toxic food is only part of the solution. Asking what values have supported the shared idea of food safety and risks will help explicate the underlying values of modern societies.

Together with the seemingly scientific title of the clip on *The Cove* website, "The Hard Truths of Mercury Poisoning," the clip's seeming attempt to emphasize scientific notions of contaminated dolphin meat implies a belief in and reliance on science. Such faith in science is not peculiar in modern narratives on environmental issues. Take

Silent Spring, for example. This most representative book in the age of the environment as well as in toxic discourse demonstrates Rachel Carson's thorough reliance on science in discussing industrial chemical contamination of air, water, soil, and the bodies of living organisms. But there is a big difference between *The Cove's* homepage clip and Carson's book. Whereas in *Silent Spring*, science-based discussion is compatible with the author's personal involvement and the resulting passionate voice on the discussed issues, the clip on *The Cove* homepage creates a cacophony between scientifically framed discussions on mercury-contaminated dolphin meat and an emotional response to dolphin hunting practices.

The apparent emphasis and reliance on the danger of mercury poisoning on *The Cove's* website implies the authority of science in present-day environmental discourses. There is no doubt that paying attention to scientific research on food and toxicity is increasingly important for individual and societal health. But at the same time, this health cannot be obtained simply by deserting that which is found toxic, as *The Cove* website seems to imply. As Sandra Steingraber suggests, avoiding of contaminated fish for instance is only a partial solution because it keeps our attention from the more radical causes of contamination (21–22). While science gives objective criteria with which to assess the safety of the environment, an uncritical acceptance of science keeps us from paying attention to and questioning the deeper causes of contamination, namely, the way modern industrial societies operate.[1]

In what follows, I will focus on three Japanese literary works that demonstrate a resistance to the authority of science and challenge scientifically molded perceptions of food and toxicity. These works are Ishimure Michiko's *Paradise in the Sea of Sorrow: Our Minamata Disease* (1969), Kato Yukiko's "Living by the Sea" (1981), and Taguchi Randy's *Hope in the Age of No Reliance* (2006). My primary focus is on Ishimure's *Paradise,* which illustrates issues of Minamata disease, the world's first recognized nervous disorder caused by the introduction of water polluted with methylmercury into the local food chains. As follow-up examinations, I will briefly discuss works by Kato and Taguchi, respectively, both of which also display a certain resistance to the blind endorsement of a scientific discourse on contaminated food. In their questioning of a reliance on a scientific discourse on the danger of contaminated food, Ishimure, Kato, and Taguchi provide a rather complex perspective from which to explore how food represents the values of those who eat as well as their relationships with the environment.

Minamata and Its Food Chains

Minamata is a nondescript town in southern Japan with a population of thirty thousand. Its name has been associated with Minamata disease (a disease of the nervous system caused by a combination of methylmercury pollution of the inland Shiranui sea, the marine ecosystem, and the food chains of the surrounding areas). First recognized in 1953, Minamata disease was officially "found" in 1956, followed by scientific identification of the cause in 1959. In 1962, a local research team identified the mercury used in producing acetaldehyde at Chisso's Minamata plant as the cause of the disease.[2] But the company continued to discharge methylmercury-laden wastewater until the Japanese government announced its official notion of the causal relationship in 1968.

Most victims of Minamata disease were from fishing villages along the coast of the Shiranui Sea—those who ate fish, shellfish, and other marine life from the sea daily. Involving social and political problems, the Minamata disease issue is so convoluted that it has not been completely resolved to this day. Reading Ishimure's *Paradise in the Sea of Sorrow: Our Minamata Disease,* which is often mistaken as nonfiction reportage but should be read as creative nonfiction,[3] we can see the complexities of dissimilitude between the people of the fishing villages and the majority of Japanese society in their knowledge, language, lifestyle, work ethic, and food culture. From Ishimure's account we learn that conflicts between Minamata disease victims and the Chisso company are not based on a simple us/them dichotomy. The company was the pride of the local people as well, having brought economic prosperity and national recognition to the small town.[4] In portraying how Minamata disease, victims continued to embrace the company, contrasting this with Chisso's unresponsive attitude to them, for instance, *Paradise* claims that the Minamata disease issue is not at all a simple conflict of victims versus the company.

And yet, while reading *Paradise,* one simple question comes up: why did the people in the fishing villages of Minamata continue eating fish, shellfish, and marine plants that they knew had been contaminated by mercury-laden wastewater discharged from the chemical plant? Why didn't they eat something other than poisoned food? Locals as well as researchers and officials knew that the fish and other marine life in Minamata Bay were poisonous before the "official" discoveries of its cause in 1959. In February 1957, for example, experiments by a Kumamoto University research group found that cats showed the same symptoms of Minamata disease about fifty

days after they started to be fed with fish from the bay (Harada 34–35). As with cats, so too those who lived on what they caught in the bay—the same food cats were fed with. Medical doctor Harada Masazumi, whose clinical research in fishing villages is known for its contribution to medical and social efforts to solve the disease, points out a peculiar value held by locals who continued eating contaminated fish. Dr. Harada says, "It is true that they were poor. But it is also true that those who were familiar with the abundance of marine gifts could not help but eat them, while knowing it might put them at risk. They simply could not believe that the fish were poisonous" (36).

Paradise offers two ways of explaining why fishermen/women and their families knowingly ate contaminated fish. One is that the people in the fishing villages were poor and therefore had no choice but to eat the poisoned fish they caught. This kind of interpretation reflects the view of modern society, as is demonstrated in the following passage of an interchange between a media reporter and a villager:

> "Er . . . tell me something about your standard of living?"
>
> "I beg your pardon?"
>
> "I mean, the value of your land, the weight of your boat, your income and so on."
>
> . . . .
>
> "What is your staple food?"
>
> "Rice and wheat, but most of the time sweet potatoes."
>
> "I see, so you don't eat rice very often, do you? Is it because you don't like it?"
>
> "If you eat enough fish, there is no need for rice." "Really? How much fish do you eat at a meal?" "A big bowlful of sliced raw fish."
>
> "And you call that nutritious? How about vitamins and proteins? (234–35)

Miscommunications between the reporter and the villager are ascribed to the difference in criteria with which to recognize food's value. For the reporter, "nutrition" is the most important criterion, and a diet based on "a big bowlful of sliced raw fish" is not considered appropriate. The quoted exchange is set around in 1956, when the idea of nutrition was being spread by the Japanese government's

postwar campaign to improve nutrition as exemplified in the enactment of the Nutrition Improvement Act in 1952. In the period of rapid economic growth from the mid-1950s to the mid-1970s, the values of science and technology became dominant, and accordingly scientific notions of nutrition suppressed traditional views of food.

Interestingly, what appears to be an interview in the quoted passage is actually not written in the form of an exchange in the Japanese original but in such a way that the reporter asks questions and comments on what is supposed to be the villager's responses. In the Japanese original, in which the villager's voice is silenced, modernity's imposition of its value is more emphasized and more stylistically clarified than in the English translation. Ishimure adds some illustrations to such an imposing "interview," saying "The reporters . . . would shake their heads in astonishment. 'Poor, backward fishing villages' was the standard phrase they used to describe the area where the strange disease was raging" (*Paradise* 235).

Throughout *Paradise,* Ishimure compares the view of modern society with the villagers' view and demonstrates how modern values impose themselves on traditional values *and* how traditional values resist being subjugated, survive, and consequently radiate hidden features of modernity. As is exemplified in the following passage, Ishimure's illustration of villagers' self-portrait appears to be modest but emphasizes its resistance to modernity: "For blind, illiterate folks like myself there can't be a better job. We never feel like sailing out too far from the shore, especially if the sea is rough. We just row into the bay out there stretching itself a few hundred steps from our houses like our own garden, and find fish to our heart's content" (*Paradise* 204).[5] Contrasted with the mainstream societal and individual values which see people in fishing villages as too poor to afford their daily bowl of rice, Ishimure presents the villagers in a way that shows that they do not need money as they live a self-contained, sustainable life within their local ecosystem. We should also notice that the quoted passage at the beginning of this paragraph illustrates the local people's reluctance at sailing out too far. What is suggested is their contentment with things they catch from the nearby water, which they call their "garden." Such an old way of fishing is depicted in stark contrast to modern industrial fishing, which goes as far away as necessary to catch as much as possible. In this way, bringing the forgotten mode of fishing into view and contrasting it with industrialized fishing, *Paradise* disturbs and questions the values of modern technocratic societies.

A native of Minamata, Ishimure shares to some extent the knowledge and customs of those who live on the sea and knows that they

are being silenced and eventually forgotten. That is most likely why she stands with local villagers and speaks for them. Ishimure asks, "In our modern world of progress and civilization we have long forgotten what it means to live in keeping with the laws of nature . . . How could those who measured everything in terms of charts and statistics . . . understand the feelings of the Minamata fishermen" (*Paradise* 236). Ishimure questions, if not criticizes, the technocratic world which post-war Japan, in its modernization zeal, had been striving for. Actually, *Paradise* is not really a book of protest, accusation, or even criticism against those who caused Minamata disease. By depicting not only the fishing villagers but also media reporters, medical doctors, the local and national governments, and other people involved in the Minamata disease issue, and assembling different accounts of it, Ishimure attempts to provide, as Karen Colligan-Taylor puts it, "a total picture of a dying culture, the victim's isolation and suffering, and the reluctance of business or government to recognize the magnitude of the problem and take corrective measures" (137). *Paradise* demonstrates how socially, culturally, and politically convoluted the Minamata disease issue has been, with different values and discourses conflicting and entangling.

So, then, to return to the question with which this paper began, why did the people in the fishing villages continue eating their own harvest of fish and seafood even though they knew that it had been contaminated? As I have discussed, *Paradise* presents two conflicting approaches: one derived from a modern value system, which associates people's eating of contaminated fish with their poverty, and the other is a view of the villagers who see their life as being inseparable from their place.

The villagers' self-sufficient lifestyle suggests what Michael Pollan would describe as a short food chain. A food chain, as defined by Pollan in his *The Omnivore's Dilemma,* refers to a system of growing, making, and delivering food, and he introduces three principal food chains: the industrial, the organic, and the hunter–gatherer. The majority of those who live in industrial societies have industrial, or at most, industrial organic, food chains with a handful of people trying to shift to an organic, local sustainable food chain. Minamata fishing villagers' food chain resembles that of hunter–gatherers.[6] This type of food chain is the shortest, and the oldest, and is rarely seen in modern food culture, except for the occasional recreational outings such as shellfish gathering in the summer and mushroom hunting in the autumn.

The shorter a food chain is, the more you know about what you eat. In Ishimure's description as well as in reality, the villagers know

the fish so well that they noticed something unusual happening to the sea before the strange disease started to spread. In other words, they knew fish had been poisoned even before scientists proved that they were and continued eating contaminated seafood.

This peculiar logic of knowingly eating toxic food is perhaps most vividly presented in the following excerpt from *Paradise:*

> Those who liked seafood in my village had been quick to find out that around Koiji Island, not far from the mouth of the wastewater channel at Hyakken, small sardines and *wakame* kelp were proliferating again, and that the folks from other villages who went there always returned weighed down by their catches. Whether polluted by mercury or not, the *wakame* was one of the delicacies of spring. I decided to use it as ingredient for a *miso* soup. (280–81)

This passage is from a section called "Spring," and *wakame* kelp is illustrated as a food representing the season. Ishimure depicts the villagers' sense of season as deeply embedded in food practice. As is demonstrated in such accounts as "Whether polluted by mercury or not, the *wakame* was one of the delicacies of spring," *Paradise* depicts a realm in which an association between food and season, along with the notion of food as a seasonal gift, is so strong that a cultural perception of *wakame* as culinary representation of season surpasses fear of toxicity.

Such a perception of food as a gift is radically different from one that evaluates food's *safety* and discuss *risks* of food production and consumption as I have discussed referring to the official website of *The Cove.* Following Ulrich Beck's argument in *Risikogesellschaft,* the idea of risk was born in the course of modernity; therefore, it may be reasonable that what seems to be a premodern or even nonmodern way of knowledge that the fishermen represent has nothing to do with risks.

Still, contemporary readers probably cannot help but to keep asking why people continued to eat toxic fish. It is likely to remain a disturbing fact, and at the same time, it is likely to unsettle modern logic, suggesting that what is popularly termed as "living with nature" is not as celebratory as it might seem. After all, it was the villagers' close relationships to the sea that produced the majority of Minamata disease victims: as of 1972, Harada pointed out that all the victims were those who lived along the coast (155–56). Due to their close proximity, what had happened to the body of water happened to the bodies of humans in turn. Living with nature and getting

Minamata disease was for them two sides of the same coin. Throughout *Paradise,* Ishimure represents the fishing villagers' value in a way that is compared and contrasted with that of modern society, often emphasizing powerful, controlling aspects of the modern value system, yet after all presenting the forgotten villagers' knowledge as resistant to any social or political influence. In this way, Ishimure depicts the consistency of the villagers' relationships with place, which is perceived by modern logic either as paradise or hell according to the degree of mercury contamination. Unlike such either/or logic, the logic of Minamata disease victims is delineated as more complex and nuanced, hence the title PARADISE IN THE SEA OF SORROW.

Food as Gift, Food as Commodity

Ishimure's demonstration of the stability of the villagers' logic is endorsed by the fisherman and Minamata disease victim Ogata Masato's observation on the Minamata disease issue. He points out three specific features of the Minamata disease incident. One is that "when news got out about 'a strange disease' and consumers stopped buying fish, the people of [his] fishing villages continued to eat the fish" (Oiwa 162). Second is that "when a first child and then a second child was born with Minamata disease, [they] gave birth to a third and then a fourth child, raising them all with love and care" (Oiwa 162). And the third characteristic is that "although [they] continued to be poisoned, crippled, and killed, in the tens of thousands, [they] never killed even a single person" (Oiwa 162–63). What seems to be common among those three features is the people's belief in life, dependence on life, and respect for life. Minamata narratives such as Ogata's and Ishimure's demonstrate that such intensity in the villagers' faith in life encompasses their enjoyment in the beauty of life including "fish from heaven" and their acceptance of the cruelty of life as symbolized by their having Minamata disease. Their narratives portray an environment in which knowingly eating toxic food is simply part of eating food as a gift. In such an environment, contamination is not an antithesis of food, but something which people share with other lives—that is, those they eat.

Ishimure's strategic demonstration of a coherent villagers' logic—their faith in life—can be made clear by comparing how the writer describes a meal at sea with one on land. First, the mealscape on board a boat as ex-fisherman Ezuno recalls it:

> "While my wife cooked the rice, I'd prepare the fish. I'd always choose the best-looking fish from what I had caught, scale it and wash it in the sea by the boat . . . . After scraping off the scales I would take out the entrails, wash the chopping board and the fish knife, remove the flesh from the bones and cut it . . . ."
>
> "Then I'd heap up the slices of raw sea bream on a plate and serve *shochu* to my wife.
>
> "Sister, fish are a gift from heaven. We fishermen take only what we need from this abundant heavenly gift, without excess or waste." (*Paradise* 207)[7]

What an enjoyable feast with fresh fish, rice, and a bottle of *shochu!*[8] A couple of pages earlier in *Paradise,* Ishimure suggests in the form of old Ezuno's talk that this kind of enjoyment is not peculiar to those in Minamata but commonly pursued by those who live in cities as well: "On Sundays [Tokyo folks] travel by train to some faraway seaside resort, rent a room in an inn, a boat and all the fishing equipment. All this, of course, is ridiculously expensive, but they don't seem to mind wasting their money" (205).[9] Unlike urban residents for whom the sea is a special holiday destination, fishermen/women live with the sea every day: it is where they live, and their boats resemble their home with all sorts of kitchen equipment such as their "own portable clay cooking stove, a pot, a pan and a kettle, a bowl, a plate and chopsticks" as well as basic seasonings such as *miso* paste and soy sauce" (206). In the view of "Tokyo folks," the sea is a special place distinct from their ordinary life. However, there is no such special/ordinary, holiday/weekday dichotomies for the villagers for whom the sea is where they live their lives. Such a conflict between the consistent villagers' attitudes towards life and inconsistent urban residents' view of their lives complicates a modern pastoral discourse in which a deteriorating, contaminated urban environment is compared with a pure, detoxified rural environment.

Compared with the previously quoted mealscape at sea, old Ezuno's mealscape at his house is strikingly similar. The following description of a family dinner with Mr. and Mrs. Ezuno, their son, and their three grandsons (including one affected with congenital Minamata disease) makes this clear:

> The grandmother cut the cake of loose tofu and put it on the table. Then she cut the boiled octopus into pieces and heaped the pieces on another dish. Near the octopus she placed a dish with yellow pickled radish.

> Mokutaro's brothers put a small plate in front of each of us. Spooning out some rice from the rice pot, the younger brother filled the plate of the cat crouching under the table. . . . (202)[10]

Dishes at this family dinner are similar to what the couple used to eat on their boat—the main dish being fish, with some rice, and, though it is not mentioned in the passage above, liquor for the old man.

Unlike the description of the fisherman and fisherwoman enjoying their meal on their boat, however, this passage gives the impression of the family being poor and suffering from poverty in a "windowless," "dark and gloomy," self-repaired, eight-*tatami*-mat small house (177). We should note, however, that, in describing old Ezuno's house, Ishimure carefully avoids the implication of the family being poor.[11] Rather, her diction gives the house of "rotten," "crumbling walls" new meanings, making it look "otherworldly" with its association with the deep sea (177–78). Ishimure's attempt to create a framework within which to see the villagers' life anew is subtle, and in the English translation the neutral tone of the Japanese original is not fully evident.[12]

What villagers in Minamata eat at sea is not really different from what they eat at home. If the mealscape on the boat is perceived as being enviable by the majority whereas the mealscape at their house represents the family's poverty, it reflects more the incoherent perception of those who see it than it represents the villagers' life circumstances. In this way, the villagers' coherent logic of food and eating highlights modern individual and societal inconsistent perceptions of food, disturbing the faith in a scientific assessment of food safety.

Post-Minamata Responses to Toxic Food

Published about a decade after Ishimure's *Paradise in the Sea of Sorrow,* award-winning writer and naturalist Kato Yukiko's story entitled "Living by the Sea" shows a similar resistance to the notion of food risk as is seen in Ishimure's *Paradise in the Sea of Sorrow.* Although Kato's story does not have any direct reference to Minamata disease, there are subtle implications that old Motoki Haru, the main character of "Living by the Sea," is likely affected by a disease similar to Minamata disease. First, "Grandma Haru" is described as suffering from an occasional narrowing of her visual field, a telling symptom of Minamata disease. Secondly, the sea in front of her house is polluted with industrial waste, a situation similar to the coastal villages in Minamata. Thirdly, "her diet is based

on what she gets at tideland," mostly clams (Kato 36), which also resembles the fishing-gathering life of the villagers in Minamata. And finally, her cat Ruru, whose diet is not different from Haru's, frequently does sudden strange dances, which cats affected by Minamata disease also do. According to the medical journal quoted in Ishimure's *Paradise,* once getting Minamata disease, cats "dance round and round, run about in a confused manner, and finally dash into the sea and drown" (152).

Such a literary allusion to Minamata disease invites speculation that perhaps Minamata narratives have engendered a certain genealogy of post-Minamata literature in which the themes developed in works such as Ishimure's and Ogata's has continued to be explored in different times and settings. Moreover, what is more intriguing for this essay's topic of resistance to the risks of contaminated food, there are certain thematic similarities between proto-Minamata literature as represented by Ishimure's *Paradise in the Sea of Sorrow* and post-Minamata literature such as Kato's "Living by the Sea." Kato's illustration of the life of Grandma Haru resembles lives of those in the fishing villages in Minamata as depicted in *Paradise.* First, there is similarity of diet in that both Haru and the villagers in Minamata are sustained by the nearby marine life which they gather themselves. Also, Haru's proximity to the sea is comparable to that of the villagers depicted in *Paradise*; Grandma Haru is described as living by the tideland with a proximity to the sea that makes her "house [look] like an oyster shell flattening itself against a stone fence" (Kato 36). This resembles how Ishimure depicts the house of old Ezuno—the ex-fisherman in Minamata—which is filled with an "underwater atmosphere" with its peculiar balance of light and darkness (*Paradise* 178). In both cases, that a sea metaphor is used for a house implies the inseparably linked life on land with that of the sea, demonstrating a way of perceiving both sea and land as their own home.

Moreover, just as Ishimure does in *Paradise*, Kato contrasts a coherent attitude to food, which is grounded in a faith in life, with an incoherent attitude to food, which alternates between scientific understanding and political juggling. The latter, incoherent attitude may indeed be coherent in its own way, in that it appropriates food as commodity either scientifically or politically. In Kato's story, the difference between food as life and food as commodity is observed in an exchange between Grandma Haru and a city officer. Grandma Haru is being told to move out so that the city can launch a garbage disposal and reclamation project of the polluted tideland, and Haru's refusal is displayed in her making fun of the officer who regularly visits the old woman in an attempt to persuade her to move out. As

we can see in the following description of an exchange between Haru and the officer who is eating clams Haru cooked and served to him, Kato presents an incoherent logic of the officer and the modernity he represents in a much more direct way than what we saw in Ishimure's *Paradise:*

> "This is delicious! Nowadays, most candied clams are factory-made and standardized, but this has its own taste. . . .
>
> "I made it from what I gathered on the beach."
>
> The officer dropped the chopsticks, and Ruru jumped onto a clam rolling down on a *tatami* mat.
>
> "Are these the clams from here, from this tideland?" His voice changed. "Yes, of course," Grandma Haru said with all her strength. . . ."
>
> "Don't you know that water at this tideland measures BOD14PPM."
>
> "Yes, I know, the former officer told me so, too."
>
> "It means that the water here is heavily contaminated. (Kato 54–55)

Then the officer explains how the water has been polluted with different chemicals used at and discharged from the nearby plants, warning her not to eat anything from the sea in front of her house. Then Haru pretends to tremble and says, "So clams here have poison in them? Oh, my, what have I done . . . ," explaining how she enjoyed watching hundreds of people from town gather seashells on the beach. When she says that she will put a sign saying "Due to POISON from the factories, do not gather seashells here," the officer suddenly changes his attitude and says, "That's absolutely unnecessary. We are checking the water every month and it rarely goes beyond the safe level. It's just a matter of feelings . . ." (Kato 56–59).

Just like the villagers in Ishimure's *Paradise* who knowingly eat toxic fish and marine life which they perceive as gift, Grandma Haru in Kato's "Living by the Sea" lives on life from the tidelands which she is aware is contaminated. Published in the early 1980s when Japan was about to start enjoying unprecedented economic prosperity in international markets, what does such a literary gesture of resistance to the risks of a contaminated food supply imply? In the case of Ishimure's *Paradise,* which was published in 1969, a collective acceptance of toxic fish in coastal villages perhaps represents the

strength of faith in life as practiced in a dying culture on the one hand, and the violence of modern values which politically, scientifically, and aesthetically appropriate the natural world on the other.

Kato's short story seems to operate in a similar yet more poignant way than does *Paradise.* "Living by the Sea" skillfully displays modern society's lack of such faith in the form of Grandma Haru's severe attitude toward such commonly-seen events as attempted suicide. The overall tone of "Living by the Sea" is not apocalyptic but rather light-hearted, the impression of which is largely ascribed to Haru's self-sufficient character. The story ends with an allusion to a particular culture which is embodied in Grandma Haru—a culture characterized by faith in life—and which is likely to die out at any moment.

Perhaps the major significance of post-Minamata literature such as "Living by the Sea" lies in its retrieving a forgotten faith in life from total oblivion. It seems more significant in the twenty-first century when ideas of risks have increasingly attracted individual and societal attention. Taguchi Randy's *Hope in the Age of No Reliance,* published in 2006, is an even more poignant literary exploration of direct conflicts with newly developing notions of food safety. At the time of its publication, food safety seems to have been a common and growing concern, as exemplified by the establishment of a series of laws including the Food Safety Basic Law (enacted in Japan in 2003 and explained by the Ministry of Health, Labour and Welfare as "a comprehensive law to ensure food safety for the purpose of protecting the health of the public"). More so than the works of Ishimure and Kato, Taguchi's work speaks to the complexities of resistance to food safety.

As a writer and an activist, Taguchi is deeply involved in the Minamata disease issue, and, in fact, *Hope in the Age of No Reliance* has one chapter focusing on Minamata out of its six chapters. For the topic of this paper, however, I would like to pay attention to a chapter entitled "Hope in the Nuclear Age" which touches upon the issue of toxic food and people's life. The chapter is based on Taguchi's 2005 trip to a border village between Belarus and Ukraine within the Chernobyl Exclusion Zone. Contrasting and comparing the disaster at the Chernobyl Nuclear Power Plant in 1986 and Japan's unprecedented bubble economy back then, Taguchi questions modern values of capitalism, convenience, and consumerism.

After the Chernobyl accident, residents in the Zone were forced to evacuate; the majority of them left permanently though a few—mostly old people—returned. Life in the village in which Taguchi stayed overnight illustrates what we call a self-sufficient life: they

grow vegetables, make dairy products, and mutually support each other in their small community. Juxtaposing life in the Zone and life in Japan, Taguchi's narrative goes back and forth between the sustainable life in the Zone with 100% self-sufficiency and the convenient life in Japan dependent on nuclear power plants. It oscillates between their beliefs and hers, confuses the questions of value, and finally suggests that the biggest difference lies in the degree of trust in place:

> If those old folks living in the Zone were given reproductive ability, I think they would give birth to babies. Even though they knew the babies would have some handicap, they would accept the fact and go on, with their roots firmly in land. How should we understand such strength to live rooted in land?. . . Are they strong because they live with land? Are they not afraid because they have their own land? After all, it is from land that they can get food . . . . (198)

Interestingly, this passage has a striking similarity to the statement of Minamata fisherman Ogata Masato. As I have introduced earlier in this essay, Ogata explains one of the main features of the Minamata disease incident, saying, "when a first child and then a second child was born with Minamata disease, [they] gave birth to a third and then a fourth child, raising them all with love and care" (Oiwa 163). What Ogata might characterize as complete faith in life Taguchi presents as complete faith in land. In linking an idea of life and that of land, Taguchi's post-Minamata narrative adds a new perspective from which to explore the issue of life in an age of increasing mobility.

Also, Taguchi's diction resonates with that of Kato Yukiko's "Living by the Sea" in which Grandma Haru's rootedness is illustrated as her being likely to "die once she is uprooted" (Kato 53). While Ishimure's *Paradise* and Kato's story are developed into either creative nonfiction or fiction, Taguchi's demonstration of a resistance to a toxic discourse is presented in the form of a nonfiction essay; therefore, the writer's confusion and speculation are more palpable. Nonfiction may have been the only choice because Taguchi can only reflect on the implications of people's everyday life in the Zone. It is tempting to think that the stylistic differences correspond to a different degree in a belief in life among the writers. Taguchi, who was born in 1959, acknowledges her rootlessness right after her reflection on people's faith in land in the Zone: "I don't know what place means. . . . I have had no connection to place since I was born. I was brought up in the suburbs. My family lived in a rented house and depended on money to live. Without money, no life. We didn't have

roots. Thus we could easily be pulled out and die" (198). This is not literary art but the writer's confession, and this very fact invites speculation that perhaps new vocabulary will be necessary for Taguchi—and the majority of "rootless" people that Taguchi represents—to address what it means to live on land. Taguchi's reflection can be understood as an incipient effort to be a self-critical reviewer of modern values, which she finds disparate from the older knowledge that the people in the Zone embody. Taguchi says, "Seeing from the Zone, perhaps it is the world that is insane. Those of us who live outside the Zone are afraid of knowing it. That is why we tend to look away from the Zone and deny it" (191).

In conclusion, I wish to address one final question: what is the implication of a literary resistance to the major values of modern society? Ishimure's villagers continue to live on marine life knowing they are poisonous; so does Kato's Grandma Haru whose diet is based on seashells from polluted tideland. Likewise, Taguchi's people in the Zone of Chernobyl nurture themselves on what they grew in the radiation-contaminated land. They all complicate the modern belief, confidence, and pride in technology and science, all of which endorse a modern discourse of toxic food exemplified by *The Cove* website as I have discussed at the beginning of this paper. Furthermore, for its irrefutable repulsiveness, the idea of eating toxic food makes readers physically uneasy and thereby appeals to their physical senses rather than intellect, confusing a mind/body dichotomy. Literary resistance to a scientific assessment of food reveals the nonmodern values deeply hidden in modernity and therefore disturbs modern value systems. Because of its chaotic yet creative force, literary resistance to food safety can provide a powerful framework within which to facilitate a careful and nuanced discussion on human relationships with the environment as are represented in what we eat.

Acknowledgements

The author thank Bruce Allen for his critical reading and insightful suggestions on the discussions of Ishimure's work and also Simon Estok and Vincent Raker for their careful reading and editorial suggestions on this essay.

NOTES

1. Ursula Heise's thorough and nuanced discussions on risk theory in her *Sense of Place and Sense of Planet: The Environmental Imagination of the Global*

shows that risk assessment and risk perception involve conflicts over cultural values. Scientific assessments play a major role in structuring risk assessment and risk perception in the 1970s, but "the field of technological and ecological risk analysis . . . has increasingly come to investigate cultural contexts, dispositions, institutions, and processes in its attempts to account for both the complexities of risk perceptions and the relationship between risk and modernization" (Heise 136–37). Although introducing a view of cultural analysis would help develop the examination of the narrative and thematic ambiguity of the *The Cove*'s website, it would be beyond what I aim to do in this paper. At this moment, I only wish to say that, in my discussions on assessment and perception of danger of mercury poisoning, I don't mean that science is an exclusive contributing factor in structuring such assessment and perception.

2. Chisso changed its name to JNC in April 2011.

3. In his 1972 commentary on Paradise, literary critic Kyoji Watanabe revealed what Ishimure had told him: the book was not entirely based on Ishimure's interview to Minamata Disease victims, rather it is Ishimure's articulation of what she felt the victims might say in their mind. In this sense, Watanabe points out, Paradise is a peculiar "I" novel based on thorough research of the Minamata Disease issues (Watanabe 309–11). I would like to call *Paradise* creative nonfiction due to its integration of the thorough investigation of the Minamata Disease issue with the writer's creative thinking and imagination.

4. As Timothy S. George explains, Chisso (or more precisely, Nitchitsu, as it was called back then) was recognized for its national importance due to its domestic and overseas manufacture of chemicals and explosives. This public recognition is exemplified by the Showa emperor's visit to the Minamata plant in 1931 (George 21–24).

5. I made the following changes to the original translation (my changes are underlined): "For ignorant, illiterate fools like myself" is changed to "For *blind*, illiterate *folks* like myself"; "We just row into the bay . . . a few hundred steps from your house like your own garden . . . " is changed to "We just row into the bay . . . a few hundred steps from *our* houses like *our* own garden . . . ."

6. Ishimure's *Story of the Sea of Camellias*, which depicts life in Minamata in Ishimure's childhood, displays that the hunter-gatherer food chain exemplified by fishermen/women in Paradise was also practiced by those who lived in the town including Ishimure's family. *Story of the Sea of Camellias* is actually full of descriptions of food—seasonal foods in particular—and the following is just an example:

> If you wanted to make clam rice, all you had to do was go to the beach and start gathering them. However, so overwhelming was the abundance of shellfish and seaweed scattered on the beach or near the margin of the water that you felt responsible to take some in order to manage the population of sea creatures and ended

> up filling your basket with sea lettuce, sea snails, cherry stones, thin-shelled surf clams and even brown *hijiki* sea vegetable beside the short-necked clams you had originally intended to gather. On both sides of the mountain paths which descended towards the sea grew *tsuwabuki*, bracken and prickly ash. A day spent on the beach or in the mountains was enough to provide for a week's meals. (*Story* 156, some changes added)

7. I made the following changes to the original translation (my changes are italicized): "I'd always choose . . . fish from the previous night's catch, scale it and wash it in the sea" is changed to "I'd always choose . . . fish from *what I had caught*, scale it and wash it in the sea *by the boat*."

8. "Shochu" is a Japanese indigenous alcoholic beverage, which is especially popular in Kyushu where Minamata is located.

9. I made one change in the translation, using "inn" instead of "hotel."

10. I made the following changes to the original translation (my changes are underlined): "The grandmother put the cake of bean curd on the table and cut it up" is changed to "The grandmother *cut the cake of loose tofu and put it on the table*"; "Mokutaro's brothers put a plate" to "Mokutaro's brothers put a *small* plate"; "Ladling out some rice" to "*Spooning* out some rice."

11. In her descriptions of the Ezunos' house throughout the chapter, Ishimure seems to carefully avoid using words that refer to the poverty of the family. At one point, the English translation reads: "This strange luminescence seemed to expose not only the extreme *poverty* in which the family lived . . . , but also the very core of their existence, the naked kernel of their deep love and religiosity" (*Paradise* 183–84, italics mine). In the passage in the Japanese original, there are no direct references to poverty.

12. As I have pointed out in the previous note, the English translation of *Paradise* uses the word "poverty" in what seems to be a more nuanced description of the old couple's way of life.

Works Cited

Beck, Ulrich. Kiken Shakai *[Risikogesellschaft, 1986]*. Trans. Azuma Ren and Ito Midori. Tokyo: Hosei University Press, 1998. Print.

Buell, Lawrence. *Writing for an Endangered World: Literature, Culture, and Environment in the U.S. and Beyond*. Cambridge: Harvard UP, 2001. Print.

Carson, Rachel. Silent Spring. *1962*. Boston: Houghton Mifflin, 1994. Print.

Colligan-Taylor, Kallen. *The Emergence of Environmental Literature in Japan*. New York: Garland, 1990. Print.

The Cove website. "The Hard Truths of Mercury Poisoning." Animation by Yannic Pian. N.d. Web. 7 March 2011.

Environmental Protection Agency (the United States). "*What You Need to Know about Fish and Shellfish*." 2004. Web. 30 March 2011.

George, Timothy S. *Minamata: Pollution and the Struggle for Democracy in Postwar Japan*. Harvard University Asia Center, 2001. Print.
Harada, Masazumi. Minamata-byo *[Minamata Disease]*. Tokyo: Iwanami, 1972. Print.
Heise, Ursula K. *Sense of Place and Sense of Planet: The Environmental Imagination of the Global*. New York: Oxford UP, 2008. Print.
Ishimure, Michiko. Paradise in the Sea of Sorrow: Our Minamata Disease *[Kugai jodo, 1969]*. Trans. Livia Monnet. 1990. Ann Arbor: Center for Japanese Studies, The University of Michigan, 2003. Print.
——. Story of the Sea of Camellias *[Tsubaki no umi no ki, 1976]*. Trans. Livia Monnet. Kyoto: Yanaguchi, 1983. Print.
Kato, Yukiko. *"Umibe gurashi" [Living by the Sea]*. 1981. Shizen rento. Tokyo: Michitani, 2008. 29–60. Print.
Ministry of Health, Labour and Welfare (Japan). "Advice for Pregnant Women on Fish Consumption concerning Mercury Contamination." 3 June 2003. Web. 30 March 2011.
Ministry of Health, Labour and Welfare (Japan). "Food Safety Information." N.d. Web. 29 May 2011.
Oceanic Preservation Society. "The Cove." N.d. Web. 30 March 2011.
Oiwa, Keibo. *Rowing the Eternal Sea: The Story of a Minamata Fisherman*. Narr. Otaga Masato. Trans. Karen Colligan-Taylor. Lanham: Rowman and Littlefield, 2001. Print.
Pollan, Michael. The Omnivore's Dilemma: A Natural History of Four Meals. 2006. New York: Penguin, 2007. Print.
Shoji, Hikaru and Kenichi Miyamoto. Osorubeki kogai *[A Dreadful Pollution]*. 1964. Tokyo: Iwanami, 1985. Print.
Steingraber, Sandra. "Mind Games: How Toxic Chemicals Are Impairing Chidren's Ability to Learn." *Orion* 30.2 (2011): 14–23. Print.
Taguchi, Randy. Yorubenaki jidai no kibo *[Hope in the Age of No Reliance]*. Tokyo: Shunjusha, 2006. Print.
Watanabe, Kyoji. "Ishimure Michiko no sekai" [The World of Ishimure Michiko]. Ishimure Michiko. *Kugai jodo: waga Minamata byo*. Tokyo: Kodansha, 1972. 305–325. Print.