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2022 FUKUSHIMA FIELD TRIP REPORT

ICU Peace Research Institute
ICU 平和研究所

INTRODUCTION

It gave me a strange feeling to be back in Fukushima with a bus full of excited, thoughtful ICU students. My last two visits to the Fukushima Nuclear Exclusion Zone had been solitary affairs. I'd driven through the night, to arrive in time to photograph sunrise over the landscape reshaped by the earthquake and tsunami. I'd also photographed the many new buildings, and the gigantic sea wall, that represented our collective hopes for the recovery and regeneration of this beautiful part of the Tohoku region. On my first visit to the Exclusion Zone, there was life everywhere—just no human life. Foxes and wild boar sauntered through the streets of Futaba Town. A Japanese golden eagle with a tanuki in its claws rose from behind an abandoned petrol station in Ōkuma. A greenfinch sat and sang on the edge of a well in the *temizu-ya* of a small shrine close to the sea in Namie. Nature, as always, fills the spaces we abandon; it can experience, but not comprehend, the effects of our technology and our failures.

This time, the joys of human life were all around us. Our first shared experience of Fukushima was to participate in the pleasure of belonging. One of our guides from Real Fukushima, Sasaki-san, welcomed us to his home in Kawabusa. His family has been in Fukushima since the Sengoku period. We sat eating local sushi while the portraits of his ancestors—half of them samurai, half of them farmers—looked down on us. They had first arrived in Fukushima 499 years ago. Five centuries later, Sasaki-san would not abandon the life they had begun.

Karin-san, our other guide from Real Fukushima, had a different story. She is a translator from Tokyo. After the *Higashi Nihon Daishinsai*, she chose to dedicate her career to Fukushima and its revitalisation. Her commitment to her adopted home, and her love for the people and the landscape of Fukushima, was visible in every moment she spent with us.

Conversations with Karin-san, Sasaki-san, and the other residents we met during our three days in Fukushima were, for me, the most memorable part of the field trip. We met many residents and returnees—but of course too few. Three days of visits to towns, memorial sites, and the area around the Fukushima Dai-Ichi Nuclear Power Station gave us a deeper understanding of the events of 11 March 2011, and the decade since the disaster. Sasaki-san spoke with honesty and without sentimentality when he said that this region of Tōhoku would never be the same as it had been before the disaster. Other elderly returnees agreed. They had come back to their homes because they could not imagine starting a new life elsewhere. But their children and grandchildren had started over, either in Tokyo or elsewhere in Japan.

Everywhere we went, the paradox of reconstruction was clear. The Japanese government is investing enormous amounts of money to rebuild infrastructure in the area affected by the nuclear disaster. New infrastructure is essential if people are to return to the area. Yet all this investment will not, by itself, bring people back to Fukushima. Young people, especially, will not return without jobs. Nor will they start families and raise the next generation of Fukushima residents without a guarantee that the same kind of nuclear disaster will not happen again.

Professor William McMichael emphasised this point during his discussion with us at the new Futaba Community Centre and Disaster Museum. McMichael is a Japanese-Canadian resident of Fukushima and professor at Fukushima University. His lecture noted that in the context of the Fukushima disaster, the term *fukkō* is often translated as 'reconstruction'. Reconstruction alone, he argued, will not return the disaster area to the way it was. Going forward, we must commit to *fukkō* in the sense of 'revitalisation' or 'renaissance'.

If Fukushima is to enjoy any kind of renaissance, we must confront the history of the Dai-Ichi Nuclear Power Station and Japan's other nuclear power stations as post-war 'Internal Colonies' or 'National Sacrifice Zones'. Like the coal mines of Wales and northern England, or the most chemically polluted and damaged communities around the Gulf of Mexico in the U.S., the Fukushima power station demonstrates the legacy of how countries sacrifice the health and well-being of selected regions to satisfy wealthier regions' hunger for energy.

Sasaki-san talked with us about his former work in the nuclear industry and described the state of Japan's nine nuclear monopolies. Nuclear fission power is an asset in the climate emergency; yet history will judge it as a net benefit or liability based on the reality of its long-term implementation, rather than its abstract potential. Weighing the human and economic costs of nuclear disasters significantly changes this calculus. With the very real threat of a meltdown looming at the largest nuclear power plant in Europe (the Zaporizhzhia Nuclear Power Plant) due to Russia's invasion of Ukraine, countries must evaluate the construction of new fission power stations in the light of highly improbable disasters, both natural and human-made. These decisions require imagination, foresight, and a global, interdisciplinary approach to planning. Neither the nuclear monopolies nor the LDP government over which the monopolies hold sway have demonstrated this capability. As long as a lack of transparency and accountability in the nuclear power industry continue, the chance of another nuclear disaster such as the one at Fukushima Dai-Ichi remains high.

Unconventional thinking, and learning from the Fukushima experience, can help us prevent future disasters. We witnessed one memorable example of unconventional thinking in the face of disaster in the survival of students and staff from the Ukedo Elementary School in Namie. The school lies only 300 metres from the Fukushima coastline. When the earthquake struck at 14:46 on 11 March 2011, the teachers decided to ignore the standard earthquake response, which would have been to shelter in place. Thanks to their quick thinking and their readiness to make decisions that combined logic and instinct, the tsunami claimed 95 fewer lives than it could have. A century of scientific progress has given humanity unprecedented abilities to shape its environment, including by harnessing the power of the atom to benefit society. Yet we must balance this knowledge against our much older, instinctive respect for the greater power of nature to shape human life. This good sense, trained into the human species by its fight for survival over millennia, will serve us well in making good decisions over the future of fission power.

On our last evening in Fukushima, we stayed in Odaka town at the Futabaya Ryokan. Kobayashi-san, our host, had developed close ties with families in Chernobyl, Ukraine, in order to learn more about how communities recover after nuclear disasters. Her friends in Chernobyl had helped them understand when it was safe to return to their home, and how to begin revitalising their community. Since February 2022, Kobayashi-san and other Fukushima residents have worked to help their friends in Ukraine withstand the physical and mental hardships of the Russian invasion. After studying the wall of photographs in the ryokan documenting Kobayashi-san's visits to Chernobyl, her example of friendship through shared suffering has remained a source of inspiration and motivation to me.

By the time we returned to Tokyo late on Sunday night, I knew that the PRI would have to return to Fukushima. We must do our part to preserve individual and collective memories of the disaster. We must continue to build relationships with the people who live in and around the disaster area, and we must support the people who are willing to return. They are pioneers of an uncertain renaissance, committing themselves to a future that may come into being, or may remain a dream. On this first PRI field trip to Fukushima—despite our desire to engage with the people we met and the issues they face—we were tourists. This is not a bad way to start, if it leads to stronger ties between ICU and the Fukushima region. What is the next step?

Christopher Simons
Director, Peace Research Institute

CONTENTS

ITINERARY

25 Fri.	08:00	Leave ICU by bus >> Namie IC >> Kawabusa
	11:45	Kawabusa Tour and Lunch at (Sasaki-san's) House
	12:45	Ranch of Hope
	13:30	Visit Ukedo Elementary School to Understand the 3.11 Tsunami
	15:00	Lecture by William McMichael from Fukushima University
	18:00	Go to ARM-Futaba Inn
26 Sat.	08:00	Futaba town center - Art district
	09:00	Go to the Okuma Town Center
	10:00	Interim Soil Storage
	12:00	Lunch at Sakura Mall Tomioka
	13:00	Tepco Decommissioning Archive
	14:30	Great Earthquake and Nuclear Disaster Museum
	17:00	Futabaya Inn at Odaka
27 Sun.	10:00	ZuttoSoko in Iitate Village
	12:00	Lunch at La Kasse Restaurant
	13:00	Visit a Farmer and Mr. Yoichi Tao, NPO Resurrection of Fukushima
	15:00	Leave Iitate for Tokyo >> Road Station Ryozen >> Tohoku Express Way
	19:00	Arrive at ICU

WHY IS THERE "A LOT OF EDUCATIONAL POTENTIAL IN FUKUSHIMA"?

BY JANINA JASPER

Increased incidence of natural disasters due to climate change and man-made disasters has made recovery, rehabilitation, and reconstruction a topic of discussion that challenges humanity across the globe to responsibility and response. East Asia, and in particular Japan, is highly vulnerable to natural hazards such as earthquakes, tsunamis, volcanic eruptions, floods, and landslides. However, due to industrial developments, the country has also been exposed to man-made disasters such as the nuclear accident in Fukushima that has severely affected people's lives and livelihoods in specific areas at the Sariku coast northeast of the country.

International policies such as the Sendai Framework (UN, 2015) raise awareness for effective reconstruction and enhanced disaster risk reduction to "Build Back Better" (ibid., 21). In this debate, "sharing of expertise, knowledge, post-disaster reviews and lessons learned" has been given a great responsibility to minimize present and future risks of events and foster resilient communities for sustainable development (ibid., 22). On the national level, recommendations of the Sendai Framework are taken up by-laws and policies such as the Japanese Basic Act followed by its Basic Guidelines for Reconstruction from the Great East Japan Earthquake (Government of Japan, 2019). On the local level, in the last decade guidelines such as the Fukushima Innovation Coast Framework have been developed to foster the economic revitalization process of affected communities. Specifically, documentation such as the Steps for Reconstruction and Revitalization in Fukushima Prefecture provides regular updates on these developments in the affected region (Fukushima Government, 2022).
In Fukushima prefecture, the evacuation of citizens started on March 11th, 2011. Residents who immediately left their houses thought they would stay only a few days in the evacuation centers. However, days turned into years. In 2013, residents were allowed to return during daylight and only recently evacuation orders were lifted, and towns started to re-open again for residential living one after another; in the last town, Futaba, the evacuation order was only lifted recently in the summer of 2022, a few months before our field study took place. Slowly a few former residents of the town, the so-called returnees, started to resettle in their former hometowns, bringing new life into the long-abandoned residential zones (Jozuka, & Young, 2022). However, their individual experiences stay with each of them, and the environment seems to tell its own story both disaster and the revitalization process.

This essay builds on the evidence collected during the ICU PRC field trip "Peace and the Future of Nuclear Power: Fukushima Perspectives" in November 2022, mainly in the recently re-opened towns of Futaba and Okuma. As implied by lessons learned, the revitalization process in these affected towns requires regular updates on the level of development and direction. Accordingly, on the tenth anniversary of the disaster, Fukushima changed the slogan "Future from Fukushima" to "Make it a reality" with the objective of continuing to bring together individual's strengths, connect minds and create tangible results (Fukushima Government, 2022, 14).

Additionally, regardless of the level of development achieved, affected areas are developing a momentum of their own that may serve the global public – even more important in an increasingly interconnected, transnational world, as the Covid pandemic has shown. With this mission, the essay pursues the objective of examining the following research question: Why is there "a lot of educational potential in Fukushima"?

"...We continue our journey on the National Route 6 that re-opened only this August 2022 leaving Futaba Town on the way to Okuma Town. Passing the contaminated soil on the left side. The radiation varies and is much higher here. We enter the exclusion zone. The bus stops in front of soil disposal represented by meters-high stacks of black plastic bags filled up with loads of contaminated removals. In front of us, a road branching off the National Route 6 is blogged. It leads straight to Tepco's Nuclear Power Plant located on the Sanriku coast next to the ocean.

The quote above gives an insight into the research work during our study trip in November 2022. It contains information about the current situation in Fukushima based on observations and reflections and shows how fieldwork in the affected areas allows visitors to experience or researchers to explore the impact of a disaster first-hand.

Further field observations in the affected areas of Fukushima provide a deep insight into the different degrees of effects of the triple disaster and present local life and livelihoods of the returnees. The partly deliberately surviving remnants of past infrastructure and buildings such as schools, kindergartens, churches, abandoned houses, shops, companies, community centers, empty streets, and squares where houses once stood to offer only a hint of what the disaster has damaged, destroyed or still leaves behind after more than a decade. The interior of houses reflects a 'frozen' setting, as the residents used to live and left their houses in a hurry eleven years ago, or it resembles a pile of rubble. Two concrete examples of these very different situation results, depending on the exposure to the tsunami, can be found in the devastated remains of Ukedo elementary school or the still complete building of Kumamachi elementary school, though affected by the nuclear accident and thus still located in the exclusion zone and only limited access. In some places, like the stationary clocks that are still to be found on the out or inside of many houses, displaying the time of the earthquake or tsunami, one finds an emptiness that lacks words for the past. At the same time, the reopened towns and zones invite residents, visitors, students, or researchers to explore years of reconstruction and revitalization efforts cleaning up, rebuilding, developing, and implementing new initiatives that have emerged in recent years paving the road to "Make ["future from Fukushima"] a reality" (Fukushima Government, 2022, 14).

EXPLORING THE GREAT EARTHQUAKE AND NUCLEAR DISASTER MUSEUM

One result of these newly developed initiatives is represented by the Great East Japan Earthquake and Nuclear Disaster Museum in Futaba Town which was opened in 2020 and is in the immediate vicinity of the newly build seawall. During our field visit, we had the opportunity to listen to a lecture on the current situation in Fukushima
by William McMichael from Fukushima University in one of the educational spaces of the museum. In his lecture, the professor expressed his motivation for his work to speak out against anti-Fukushima stereotypes. An example he gave relates to the explosion effect of the nuclear power plant: Shortly after the earthquake, a tsunami caused the first "blackout" of the nuclear power plant. According to him, it is important to note that only "hydrogen exploded and no other substance as is often assumed". Furthermore, he continued his lecture by highlighting that many rumors or prejudices, that have arisen in connection with the nuclear disaster, continue to develop even in its reconstruction phase.

These rumors or stereotypes may be traced back to two types of fears: (1) the general fear of the unknown and (2) the fear of radiation. In conclusion, he highlighted, to understand the Fukushima accident it appears very important to understand the radiation correctly, which is also highlighted by recent research on crisis communication (Kwesell, & Jung, 2019). This includes the fact that in Fukushima, the radiation spread depending on the wind direction. In addition, rain has been the biggest factor in the contamination of the closer environment. As a result, the contaminated areas partly include fields in the immediate vicinity of the nuclear power plant as well as fields further away such as in Iwate prefecture (Kinoshita et al., 2011).

Since 2020 The Great East Japan Earthquake and Nuclear Disaster Museum have dedicated itself to passing down the records and memories of Fukushima "to future generations as lessons to help with disaster reduction/prevention" (FIPO, undated, 1). Its work is diverse and based on four different learning approaches a) an exhibition space, b) fieldwork, c) storytelling, and d) a training program. While the latter three rather provide additional services, the exhibition serves as the main source that offers to learn about the triple disaster and its reconstruction progress. A video-animated prologue introduces the visitor to the museum's two challenging principles: First, "think of the disaster as affecting everyone" and second, "pass the experiences and lessons of Fukushima to future generations" (ibid., 2). These two principles clearly express the far-reaching effect of disaster risk reduction, which the museum is striving for beyond the region and Japan. In order to take up the challenge of these two principles, the museum guides the visitor along various stages from the beginning of the disaster, the immediate response to the nuclear accident to its long-term impact, and the overcoming of adversity through a revitalization process. Questions addressed at the stages include:

STORYTELLING ON THE ROADS OF FUKUSHIMA

The fact that storytelling is a valuable learning resource within the framework of museum education and for disaster risk reduction can also be experienced outside its walls when exploring the reopened disaster region (Nagamatsu, Fukasawa, & Kobayashi, 2021). During our field trip, we met "Mr. K"[1], a returnee of Fukushima. He has worked at the Fukushima Daiichi Nuclear Power Plant and other nuclear power plants throughout Japan for 40 years. When the triple disaster in Fukushima occurred, he had been working at a different plant. However, when the disaster happened, he was in Fukushima as he had taken off for a week. Like all other residents, "Mr. K" had to immediately evacuate. Only three years ago, he returned to the town to a new housing complex. Though his home, a house near the station, had survived the disaster, they decided to demolish it.

Now, "Mr. K" lives about five minutes away from this friend's garden. We asked him about the degree of radiation in products. According to him, no radiation can be found in his products, or the radiation is minimal low, so he feels safe. If he is concerned about radiation, he can bring it to the townhall for a check-up. "Mr. K" told us that he also goes to the forest to pick up spring leaves and fruits. In town, there is a small convenience store to shop for basic groceries. For him, it is hard to picture the future of this town: "If you return, there is no job. […]. If there is no job, there is no good reason to return." "Mr. K" has children, but they will not return. Besides, he reports, the young generation is concerned about radiation. Before the disaster, there were about 11.000 inhabitants living in his city. Now, about 20% of the population is expected to return. Still, overall, he appears very critical of the current situation though he admits that he has not given up hope: "Maybe 20 to 30 years later there is a different society…". Listening to "Mr. K" opens another perspective, this time from a returnee's point of view. His assessment of the current situation opens further questions regarding the local labor market situation, local agricultural production, and marketing with its challenges in the region as well as the population growth and aging locally as the young generation seems to have a differing relationship to the disaster region of Fukushima and their hometowns. All challenges are also addressed in the Prefecture's reconstruction and revitalization plan (Fukushima Government, 2022) as well as in research (Zhang et al., 2019).

INITIATIVES EMERGING IN FUKUSHIMA

In order to overcome some of the long-term challenges of the disaster, various initiatives have emerged in Fukushima prefecture in the last decade. One of those initiatives is the Fukushima Revitalization Association, a non-profit organization grounded by volunteers from Iitate and beyond in 2011 a few months after the disaster. The association is based on a philosophy valuing local, continuous, and collaborative work based on facts. It views the nuclear accident as a global issue since, according to its standpoint, neither the Japanese government nor TEPCO has the technology to settle the damage caused by the accident (Fukushima Revitalization Association, 2022). Consequently, the Fukushima Revitalization Association has taken the initiative to conduct independent surveys and experiments in collaboration with residents to support regional revitalization. This includes three different approaches: investigations, experimentation, and communication. Investigation of radioactivity takes place through a) daily measurements of space radiation by installing instruments in cars and places such as roads, houses, and forests, b) the extraction and systematization of soils samples, and c) the development of tools for the measurement of radiation in food (e. g. rice, vegetables, eatable wild plants, mushrooms, crops). Experimentation targets mainly the decontamination of farmland and forest and the development of respective methods. Questions faced during the process are: How can water be drawn into farmland and washed away? How to remove and bury frozen ground? How can a sweeping tree be pruned? Communication of the association takes place through face-to-face and online events, including debriefing sessions in Tokyo and places affected by the disaster. Further communication tools consist of study tours, overseas inspections, and accommodation facilities for visitors, exhibitions, and art projects at the warehouse project.

An exemplary project result of the Association is the ZuttoSoko warehouse. It recently opened in November 2022, a week before our visit. It is in Iitate village[2] in the northeastern mountainous part of Fukushima and is characterized by severe climate conditions of the highlands. The village's livelihoods are based on agriculture, horse breeding, livestock, and dairy farming.

The warehouse ZuttoSoko aims to provide a base for "re-generational connections", where people gather across boundaries fields, regions, and generations to approach environmental issues facing Iitate village and the globe, and to create a regional environment in the future (Fukushima Revitalization Association, 2022). It may also serve as a place for experiments and research where villagers and researchers gather or as a shared office for companies and group activities, including cafés and shops to support exchange, connect people and "create opportunities for circulation" (ibid.). Circulation in this context means to specifically create new cycles for people and the natural environment through both, product sales such as local seeds of rare agricultural products, or events such as collaborations with artists displaying the new products in the warehouse. All these activities have one thing in common. They aim for the sustainability of the region.

This principle of the warehouse is also reflected in its name as the first word "Zutto" has two meanings: sustainable and creation or innovation. Besides, the principle is mirrored in the warehouse' interior. For example, the conference room consists of materials that have previously been used for other purposes and can therefore tell stories. Materials include recycled wood from temporary housing or furniture such as school tables that were in use prior to the accident; in addition, rice from agricultural fields is reused as insulation material, which is filled into sacks for the roof of the conference room. ZuttoSoko's motto throughout the construction of the warehouse is: "Think and act for yourself" aiming to create a local environment that will last and can be passed on to the next generation (ibid.). Thus, with its sustainability orientation, the initiative ZuttoSoko partly already reflects a strategy that has already been adopted in other regions of Japan or the world and could be further expanded in Fukushima Prefecture. Following Iitate prefecture, in the future "A vision using Sustainability Development Goals" may be translated into a sustainability strategy to support the engagement of civil society and citizens (youth in particular)" in Fukushima. Efforts of the city of Rikuzentakata in Tohoku prefecture (City of Rikuzentakata, 2022) and foreign countries may serve as examples for inspiration (OECD, 2022, 25).

CONCLUSION

Evidence from the three-day study tour on "Peace and the Future of Nuclear Power: Fukushima Perspectives" supplemented by further references provides rich material to respond to the research question: Why is there "a lot of educational potential in Fukushima?" - The answer is clear but complex. In short: the natural disaster and the nuclear accident in Fukushima show even after eleven years in 2022 the negative influence on the region with all its subsequent severe consequences of the event.

The reconstruction process in connection with the revised disaster risk reduction measures builds on many lessons learned, which could only be referred to to a limited extent in this essay.

In addition, the reconstruction process is not yet complete but has in principle only just begun with the reopening of the cities. Insights into this type of process, into its past and still-to-be-anticipated timeline, already demonstrate the learning potential that can be drawn from the event. In addition, the affected cities and population each must tell their own individual story about the disaster. On the one hand, this is made clear by the insights gained during the study excursion as part of the many (field) visits and discussions. The remnants of important infrastructure such as schools or towers contaminated with soil in the fields as a result of the cleaning measures of the catastrophe literally show the depth of a destroyed nature and destroyed human habitat of the local population. On the other hand, the individual stories in the initiatives that emerged after the disaster, such as the museum with its wide range of offers, the non-profit organization Resurrection of Fukushima, or the new warehouse ZuttoSoko for exchange and joint experimentation. Finally, the exchange with the key figures involved in the respective initiatives as well as the individual people such as the returnee in the context of the street interview leads to insights that raise questions that not only relate to disaster management and the revitalization of the region or Japan's policy but go beyond: How will we deal with nuclear energy globally in the future? Are we aware of the risks associated with further nuclear energy development? What priority do we give to our natural habitat in relation to economic growth - globally and nationally? What kind of sustainability are we talking about in the context of nuclear energy? - all questions that have gained in precision during a visit to the Fukushima Prefecture. It becomes clear: The educational potential in Fukushima extends far beyond the region and Japan.

"How will we deal with nuclear energy globally in the future? Are we aware of the risks associated with further nuclear energy development?

The continuing consequences of disastrous events such as earthquakes, tsunamis, and nuclear accidents are examples of how prioritizing certain values can destroy life abruptly, violently, and for a long time. Fukushima triggers us to ask existential questions: What does sustainability mean to you in the context of promoting nuclear energy? How can sustainability be secured in this context? Why does nuclear power continue to rule global politics after such experiences?

Notes

1. The name has been changed for this essay to ensure anonymity.
2. Also, Iitate village was affected by the nuclear accident. Riding the northwesterly wind, radioactive materials flew over the mountains, pouring down on the natural environment of the Iitate. About 6000 residents had to be evacuated. In 2022 evacuation orders could be lifted for most of the area, though some parts remain a difficult-to-return zone.

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FUKUSHIMA FIELD TRIP

FUKUSHIMA PHOTO EXHIBITION

FUKUSHIMA REFLECTIONS BY MOMOKO SOYAMA

In August of 2022, I received an e-mail announcing the field trip to Fukushima from the ICU Peace Research Institute. Once I read the e-mail, I decided to participate. I have wanted to visit Fukushima for a long time. Therefore, this study tour was an excellent opportunity to learn more about this region. I was also interested in and plan to major in anthropology in my junior year. One of my areas of interest is the relationship between the remaining buildings and the people in Tohoku. Additionally, on top of that, the opportunity to consider Fukushima in English is a rare opportunity. This paper will discuss what I have learned during the trip. This three-day trip was full of many activities. For example, we visited the Great East Japan Earthquake and Nuclear Disaster Memorial Museum, the TEPCO Decommissioning Archive Center, and the restaurant serving the meal from Fukushima's ingredients. The most shocking and memorable of all these activities was visiting the elementary schools. We visited the Ukedo and Kumamachi Elementary schools. As a senior high school student, I visited Okawa Elementary school in Ishinomaki City in Miyagi, which was destroyed by the tsunami. Still, the schools I visited then were in a different condition from the Okawa elementary school. Ukedo elementary school is in a tsunami-hit area; therefore, the first floor of the building was destroyed. Still, the second floor remained intact, and this part is now used for the panel display area of the museum that tells the story of the tsunami disaster. On the other hand, Kumamachi elementary school was almost intact. Still, since the school is in a difficult-to-return area, the time in the building was wholly stopped on 11th March 2011. The classroom of the Kumamachi elementary school, which has now become a time capsule, was very ordinary. There were posters on the wall, dictionaries with many bookmarks on the desk, and backpacks on the floor. There were no differences between Kumamachi elementary's classrooms and those of my elementary school. This landscape intensively told me that the accident happened in an ordinary place, not a special one. When the disaster occurred eleven years ago, I was an eight years old, second-year student in elementary school. In other words, I have lived the same age as the students who learned in these two elementary schools.

After the disaster, I continued to live in Tokyo, attend the same elementary school, and usually graduate, but what kind of lives did the students in these schools lead after the accident…? The difference between the students in those schools and me was "where we lived." I was amazed by this observation. In other words, what kind of lives did the students in these schools lead after the accident, and what are they doing today?

We also visited the Odaka Church in the Odaka district of Minamisoma City. The minister of the church turned out to be a graduate of the ICU. Odaka Church has a kindergarten, which is now abandoned because of the evacuation. The chapel minister said that he is in charge of both Odaka and Namie churches, and Odaka has only one member. On the other hand, Namie church has no members. Although few members are in these chapels, Sunday morning service has been held every Sunday because many people come there from various areas to cheer up these churches. It was a very wonderful experience to have the opportunity to hear that the churches were protected thanks to the passion of many people. Additionally, we visited the kindergarten, where time stopped on 11th March 2011. I strongly remember that the date of the table in the teachers' room was kept as 11th March 2011. The church minister wants to keep the kindergarten and cooperate with the neighborhood. He also said that he wants to hold a graduation ceremony for the kids who were in the eldest grade of the kindergarten and are now around 18 years old because they could not formally graduate from Odaka kindergarten due to the cancelation of the ceremony, which was scheduled soon after the disaster.

The presentation of the minister conveyed a deep love for the church and children. However, I still asked myself, why should we keep the abandoned kindergarten?" or "How can we get the money to keep the kindergarten?" I cannot answer these questions even though I understand keeping kindergarten is essential.

Furthermore, one of the problematic aspects of the Fukushima disaster area is whether people will return to their hometowns - especially in the Futaba district, a small percentage of people have returned to their hometowns in Fukushima. For example, in Futaba town, among the 7100 residents, only 10 people returned. Likewise, in Okuma town, 380 residents of a population of 11500 people returned because of the long evacuation. During the trip, we interviewed a returnee farmer in Okuma town. He evacuated many areas of Fukushima prefecture and now has returned to Okuma, where he lived before the nuclear accident. He cultivates vegetables for them with his wife. He highlighted that "there are no reasons to return to this town because many evacuees now have the foundation of their living in the place where they evacuate." Also, he said that we should not believe the beautiful stories that the town public or government appealed to us. After interviewing him, I feel the massive gap between the local people and the town public.

On the last day, we listened to a presentation from a member of NPO Resurrection of Fukushima, who told us that TEPCO built a beautiful museum or buildings, but no support was given to the residents. I became unsure about the definition of "recovery" from a disaster, and this kind of situation- the gap between the public and local people- was like Miyagi Prefecture I visited four years ago. In the Natori City of Miyagi, many public residences were built, but the mental status of local people did not catch up with the material recovery.

In Futaba town, there were reconstructed station buildings and public buildings. But few people are there, and some residents distrusted the public town government or TEPCO.

"I misunderstood that only going abroad is an international action, but after seeing the engagement of people in Fukushima, I changed my mind. Their engagement in trying to explain Fukushima worldwide with a strong passion was seen as genuine "International" for me. [as novelist Miri Yu says] "You should not stop considering nuclear accidents with just crying for that. Once you learn about the tragedy, you have responsibility for the fact."

I remember that former Prime Minister Suga said that the recovery of the disaster area of the Great East Japan Earthquake was almost completed at the ten-year memorial ceremony of the disaster but is that true? What was the foundation of his saying? The returnee farmer said there are few possibilities for evacuees to return, but I want the public government to discuss with local people and get close to genuine recovery.

I learned many things and ideas through this field trip. I mainly appreciate Karin-san and Shuzo-san, who guided us during the trip. They are members of Real Fukushima, the group which aims to share the actual situation of Fukushima through the local guide. Karin-san translated all the information from Japanese into English, and she kindly talked to me so that I could relax to share my experiences or what I have learned at the university. Shuzo-san was born and raised in Fukushima and had been working for Fukushima prefecture for a long time. From him, I received a passion for telling the truth about the Fukushima nuclear accident and today's situation. Both Karin-san and Shuzo-san guided us and explained Fukushima to us in English. In addition, the worker in the Soil storage or the owner and cooperative member of Zutto Soko explained the situation of the nuclear issue in Fukushima in English to students from various countries. They were engaging in telling the actual situation of Fukushima from a small town in Japan to people from all over the world. For me, they were so cool. Before participating in this trip, I misunderstood that only going abroad is an international action, but after seeing the engagement of people in Fukushima, I changed my mind. Their engagement in trying to explain Fukushima worldwide with a strong passion was seen as genuine "International" for me.

I also learned through this experience that "we should not end considering the accident by just learning about that." On the second day of the trip, I visited a bookstore run by the novelist Miri Yu, who moved to Minamisoma from Kanagawa Prefecture after the nuclear accident. I bought an essay titled 'Minamisoma Medley' written by her. "You should not stop considering nuclear accidents with just crying for that. Once you learn about the tragedy, you have responsibility for the fact".

This phrase is in one of the pieces of her book I bought, which was said by a resident of Fukushima who experienced a nuclear accident. Through this phrase, I noticed that I would be satisfied just learning or seeing what happened in Fukushima. But what kinds of actionor responsibility can I take? This has been a big question for me after returning from the Fukushima field trip. Honestly, I could not find a way to take responsibility or contribute to Fukushima. Those complicated feelings are still with me even now, when I'm writing this essay.

I will become a third-year student in three months. In April, I will decide on the major and start to deepen and create my learning. I consider what I can do for this experience by using the anthropological idea in which I am interested or how to take responsibility for what I learned during this time. Additionally, after this field trip, I became interested in the graduate school lecture titled Humanitarian Action and Natural Disasters. I want to continue deepening my understanding of the role of the local governments or communities in the recovery from the disaster which happened or will happen in Japan. I firmly believe that the Fukushima nuclear accident is an issue for not only the people in Fukushima but everyone, especially in Japan. We should remember that the electricity generated in power plants in Fukushima was used in the Kanto area, not Fukushima. It means that Fukushima supported the life of people in Kanto. Moreover, there is still some nuclear power plant in Japan, and Japan is known as a country where many natural disasters happen. I will continue considering and learning about Fukushima and seek a way to take action for what I saw during this trip.

THE KAWABUSA VILLAGE TOUR
BY LUZ MARIA CARREÑO

We began the three-day ICU Fukushima trip with a traditional lunch followed by a tour of Kawabusa village. As we went around, I thought about how much it reminded me of my hometown back in Utah with the brown, orange, and red leaves, pastures with cows grazing, and homes surrounded by nature. This was a scene I had not seen back in Tokyo. Kawabusa is the home village of Mr. Shuzo, one of our tour guides. He explained to us that after March 2011, the village has not been the same. The farmers who returned to Kawabusa after March 2011 were afraid of the contamination level in vegetables and decided to plant flowers instead were afraid of the contamination level in vegetables. The government removed five centimeters of topsoil to reduce the radiation level, but people still fear consuming produce that comes from Fukushima. In regard to residents, out of the 21,000, about 2,000 people returned to Namie Town. Where Mr. Shuzo lives, only three other families live in his area. Many households demolished their houses after the evacuation and only empty lots remain.

Ukedo Elementary School

We moved towards the shore where Ukedo Elementary School is located, facing the vastness of the body of water just 200 meters from the Pacific Ocean. On the shore, the breeze was cool and the waves came towards us with force. We toured the inside and outside of the devastated and abandoned school. The elementary school was damaged on the inside. The outside of the school had little to no damage by the looks of it. Ironically, it was TEPCO who funded the construction of Ukedo Elementary to show appreciation towards the town for accepting them.

According to Mrs. Karin, there were about 400 or so houses near the school and the majority of them are gone. Peeling paint, water-damaged wood, toppled shelves, fallen pipes, dust, and exposed wiring decorated the building. Mrs. Karin told us that The earthquake hit around 2:45 pm. After the earthquake passed, the teachers, staff, and children all abandoned the building and ran towards a hill about two kilometers away from the school. They had approximately 50 minutes to get to that hill. Thankfully none of the 80 children and school staff were injured or killed that day thanks to the decisiveness in moving towards the hill. In front of the school's clock tower, Mrs. Karin pointed out that the clock stopped working at 3:39 pm when the tsunami hit. As I stood there looking at the clock, I tried to imagine being an elementary school child and how I would feel to first experience the earthquake, and then be running towards the hill with all my classmates and teachers. I remember how loud and intimidating the waves from the Pacific Ocean sounded to me earlier that day. I have never experienced an earthquake or tsunami, but in my imagination, I pictured an ominous gray sky with angry waves of dark navy water splashing on the shore. Even as an adult, I know if I had been one of those teachers or school staff, I would have been very frightened. Only the children themselves know how they were feeling on March 11, 2011.

"I tried to imagine being an elementary school child and how I would feel to first experience the earthquake, and then be running towards the hill with all my classmates and teachers. I remember how loud and intimidating the waves from the Pacific Ocean sounded to me earlier that day."

Lecture by William McMichael from Fukushima University

Our last stop for the day was the Great Earthquake and Nuclear Disaster Museum where Professor McMichael gave us a presentation about his time in Fukushima and how things were before and after March 11, 2011. Professor McMichael had a great level of enthusiasm including great storytelling skills kept us all attentive throughout his talk. He is originally from Canada, but he has a Japanese heritage and a genuine love for this region. Certain towns like Iitate, Katsurao Village, and Namie town were more impacted by the nuclear spill compared to other towns that are closer to the TEPCO Nuclear Plant. The nuclear waste was distributed amongst the cities due to the direction of the wind, rain, valleys, forest, and how it rained on March 15, 2011. Post 3-11, there was a fear of the unknown and radiation. Many residents decided not to return to their homes in Fukushima due to fear of the irreversible effect of the nuclear disaster. Even if these residents had returned, it would not be the same. For many of the areas, it took years for evacuation orders to be lifted. Hence, why would these residents uplift their families again when they had already moved and settled in their new towns or cities? Tokyo Electric Company (TEPCO), constructed its nuclear plants in a place like Fukushima because it is far away from Tokyo, it was basically a "national sacrifice zone." However, communities and businesses in Fukushima were placed in a vulnerable position without having a say. Although Professor McMichael gave us more information about the nuclear disaster, he also explained how he and Fukushima University students stepped in to help residents who had been impacted by the disasters of 3-11. Temporary houses were built on the campus of Fukushima University and students served meals to evacuees, helped with groceries, and organized summer camps and other activities for evacuee children.

A talk with 'Mr. K' (evacuee)

As we made our way to our next destination on Saturday morning, we encountered 'Mr. K' who is a returned evacuee and farmer. At the time we arrived, he was weeding the garden with his wife. Mr. K told us he is looking after the house of one of the evacuees who settled elsewhere and left their house and plot of land in the care of him and his wife. He said that the produce from the garden is taken to the community center where community members can distribute it among themselves. Prior to 3-11, he had been a power plant worker for 40 years. His wife is originally from Okuma and after they married, he followed her there because the TEPCO power plant was under construction and that meant job opportunities. The couple has several children. These children are now adults, but they live far away. They did not want to return to Fukushima. Before 3-11, there were about 11,000 people in Okuma town. According to him, the current population is about 200 people. Mr. K also mentioned that the power plant could have avoided the nuclear spill, but headquarters hesitated to approve the usage of salt water to cool down the reactors that were overheating. It was an unfortunate mistake that could have prevented so many catastrophic outcomes- plus the power plant could have been saved. The power plant is still cooling the reactors as it takes decades to cool down. For him, it is hard to imagine the future of Okuma. He says that it looks like development is going on, but with no jobs, it will be difficult for young people. When we were nearing the end of our interview with him, we noticed that his wife had gotten into their car and driven off. This was a comical scene for us because we worried that he was left without a ride, but he was as if nothing had happened. We took a few photos with Mr. K and thanked him for his time. During our interview with him, the garden he was weeding was positioned in front of a lush green and scenic backdrop of tall pine trees of different shades of green, a few smaller trees, and bushes of bright orange color. The blue sky was prominent behind the trees and the clouds were a thin white blanket over the blue-sky canvas. There was a gray shed and greenhouse across the garden where he and his wife were working. Lettuce, onion, corn, and spinach are some of the crops I assume are on this plot of land. But I am not a gardener so I may be wrong.

The Cow Farm

Our three-day excursion in Fukushima was coming to an end when we finally made it to my most awaited part - the cow farm in Iitate Village. I am a country girl and have lived on dairy farms all my life. Both of my parents work on a dairy farm and my dad raises goats and Holstein calves which he sells to the local livestock auction. Hence, I was really interested in learning about how the nuclear spill of 3-11 affected cattle farmers in Fukushima and what had become of the cows post 3-11. When I got off the bus, I was met with a familiar sight of a yellow tractor, green alfalfa, and bucking calves. I excitedly asked if we could pet the calves but was told no. I was bummed but still happy to be on this cow farm – it felt almost like home. There was a chilly breeze, so we all huddled tightly around the owner of the farm while he told us about his life and cows. We, unfortunately, did not ask for his name so I will continue referring to him as the owner of the farm or the owner, for short. The owner explained how he evacuated to Kyoto and worked at a butcher shop to learn about this industry. Around 1,200 villagers returned to Iitate Village, but most of the returnees are above 70 years old. The owner's father evacuated to the south of Fukushima with 20 cows, and the owner's current business was built on these 20 cows that were evacuated. All of these cows were full body screened and their meat is safe to consume.

Originally, the owner didn't have the intention to return to Iitake Village since after the nuclear disaster it looked hopeless to return. However, since he is the youngest child of four, the responsibility to care for his parents falls on him. Another reason for returning is that both his mother and grandmother passed away while waiting to return to Fukushima. They were not able to return to their home village. Therefore, after remaining in Kyoto for five years, he and his family returned to Fukushima and stayed there for six years. It was not until this past April that he and his family returned to Iitake Village. TEPCO helped pay residents for moving out, but not for return. The owner currently has a 70-million-yen debt for paving part of his cow farm in cement. As he told us this, he did not look worried or upset, in fact, he looked optimistic and said something along the lines of "we'll take it day by day". Furthermore, the owner has accumulated knowledge of radiation and data and this makes him relieved and more confident in doing what he does. The owner continued and told us how the weather can get a bit intense up here, sometimes reaching -18 Celsius. However, when one raises any kind of farm animal, whether there's sun or snow, these animals must eat and be cared for. A farmer cannot just call in sick or decide not to tend to the animals because it is a little bit cold. One thing that really stood out to me is when the owner mentioned how about 3,000 cows were safely evacuated even ahead of any person from the village. It was in June or July 2011 that cows were evacuated.

NPO Resurrection of Fukushima

Our last stop was at the NPO Resurrection of Fukushima in Iitate Village. Its Executive Director, Mr. Yoichi Tao, gave our group a presentation about everything the NPO has accomplished since the disaster. I'll be honest, at this point I was tired. However, I wanted to take in the whole experience as it was our last moment in Fukushima. We, unfortunately, ran out of time so there was only enough time for one person to ask a question. It was time to go and I wanted to make sure I got a picture with Mrs. Karin because she has such a kind and sincere aura to her. I got my photo with Mrs. Karin, we hugged, and I boarded the bus. As the bus was departing, I took a picture of Mrs. Karin, Mr. Shuzo, Mr. Yoichi, Mr. Yoichi's wife, and the two young staff members from NPO Resurrection of Fukushima. I was okay with that because at least I captured these individuals waving to us goodbye.

I am very grateful to have had the opportunity of being part of this trip. I met some amazing and interesting people from ICU and Fukushima. Having been able to converse and learn from other students, staff, farmers, leaders, and advocates made this trip especially special and one of a kind. I look back on everything I learned and remember the stories that were shared with us. Although it is very sad what happened to Fukushima on March 11, 2011, the residents and leaders that continue living in Fukushima are a sign for optimism. To be able to return and live in Fukushima, after all of the trauma and after so much of it has changed, takes courage and resilience. Fukushima continues breathing and living, and I am optimistic that the current residents and future generations will keep the region alive.

THE RESPONSIBILITY OF OUTSIDERS AND THE REVITALIZATION OF COMMUNITIES

BY NAHO YACHIDA

I participated in the Fukushima field trip coordinated by the ICU Peace Research Institute (PRI) in November 2022. I joined this tour to acquire basic knowledge of the Fukushima disaster as a person who was born and grew up in Japan and to learn more about community building in local areas. The Great East Japan Earthquake broke out when I was eight years old. I was in the second grade of elementary school. My memory of the earthquake was very ambiguous. Some memories that I still have are the very big shout from a teacher at my elementary school, who was usually very calm, the small school lunch provided after the earthquake, and the blackout in the following weeks. Although I was not mature enough to understand the terrific situation caused by the earthquake and tsunami, I did understand something terrifying, and heartbreaking was happening at that time. More than 10 years have passed since then, I still do not really know what happened during the earthquake in detail and why the usage of nuclear power generation is always under discussion. In other words, I know my ignorance of Fukushima, which made me feel guilty as a Japanese person who experienced the earthquake. join the trip, and have an opportunity to see what happened on the site.

Community building is another area of my interest. In my opinion, connections between people can create value for local areas, even if the areas suffer from depopulation. What made me think this way was the experience in Naganuma-machi in Hokkaido last summer. I joined service learning in July and stayed there with a family of farmers for 30 days. What I noticed there, was that the relationships between people were more robust in rural areas than in cities, and such durable relationships in local communities can trigger people to feel connected. I thought that the solid relationships between residents can lead more people to stay in local areas, which can invoke vigor in the communities. From this experience, I wanted to know more about how people's connectivities contribute to regional revitalization. In the Hamadori area in Fukushima, most of which was affected by radioactive substances after the explosion of the nuclear power plants, the return of local people who used to live there is one of the main issues. Thus, I wanted to analyze how communities are being restored in the area if people are coming back to their original sites. If not, I wanted to know what prevents residents' returns or revitalization of unities between people. Although the situations in the area damaged by nuclear accidents are different from other rural areas simply tackling population drain, I wanted to get hands-on experience in regional revitalization and community development in Fukushima.

Reflecting on all three days of this trip, this paper will discuss my impressions of local communities in Fukushima, especially paying attention to Futaba-Machi and Minamisouma-Shi. Futaba-machi is located in the east part of Fukushima prefecture and has Fukushima Daiichi nuclear power station on its northern border with Okuma town. It directly received the scattering of radioactive materials, but an evacuation order was lifted in some regions in Futaba-Machi in August 2022. Now that people can return and live there, only 2% of the residents have returned. Minamisouma-Shi was also affected by the nuclear disaster, but since the effusion of the materials was lower than Futaba-Machi, it re-opened in 2016, and some original residents returned there. I stayed at Futaba-Machi on the first night and Minamisouma-Shi on the second night, and I got different impressions from the two regions. My impression of Futaba-Machi was not positive. I could not feel the atmosphere of people living there since there were few residents. I met no residents around the hotel I stayed in on the first night, aside from many laborers who work for jobs related to nuclear power plants and decontamination. I remember very dark cities at night and many trucks running through the straight roads that seemed to be newly constructed after he disaster. I wanted to talk with residents, and I asked the hotel staff about people coming to the hotel. I was informed that only people who need to stay there come to the hotel,

such as construction and government workers who come for disaster inspection. When I was talking to the staff member, I recognized my self-awareness as a non-victim of the nuclear accident. I still considered myself an outsider of the accident since I did not receive apparent damage from it. My experiences and feelings in Futaba-Machi have raised a big question about my position on the accident, and I have still been groping for the answer. Compared to Futaba-Machi, my impression of Minamisouma-shi was not negative, since I was able to feel the atmosphere of people's lives there. What surprised me was that there were children around the region. Since I had never met any children at Futaba-machi, the surprise was particularly big, and I felt the hope of the Minamisouma-shi. I thought it was interesting that new settlers who did not live in the area before the disaster decided to come and live there. Despite the severe damage from the disaster, I thought Minamisouma-shi was gradually recovering its allure, and the community built by returnees and newcomers was being created. I spoke to one of the newcomers who along with his partner came to Minamisouma-shi in 2015. Now they are running a small cafe and bookstore. He told me that half of the customers and bookstore are residents, while the other half are from out of Minamisouma-shi. He also told me that the cafe could be used as a community space for locals, and some residents gather there and talk for more than three hours if they miss a bus. The fact that half of the customers are not locals represents that the local economy is independent and has some attractiveness, which is proof of the revitalization of the area. The existence of people and the space fostering the relationships between them also show that the region is organized by the unities of people. I thought that Minamisouma-shi could attract more and more people in the future.

On the other hand, it is not true that Minamisouma-shi sees only a bright future. I also spoke to the owner of the guest house I stayed on the second night, and he said that he recently has funerals of locals once a month. He also said that people who are intensely engaged in the revitalization of the area, such as planning illumination, are becoming scarce because of the drain of people. From his reflections, I learned that Minamisouma-shi is on the truck to restoration as a community people can live along, though the capitals and resources for it are still fragile and not stable.

It might happen that Minamisouma-shi is decreasing its popularity if it cannot find a stronger trigger to spread its attraction. On one hand, Futaba-Machi has received few returnees and newcomers as residents. On the other hand, Minamisouma-shi has established a community of residents even though it is not strong enough. What is the difference between these two cities? One factor is that it has been only 3 months since Futaba-machi has become habitable, while about 6 years have passed for Minamisouma-shi. It is possible Futaba-machi will attract more returnees and newcomers in the future based on the vigor of Minamisouma-shi as a precedent. However, as mentioned above, the revitalization tends to depend on individuals' will to come back or move to the area, which can be said to lack lasting motivation to attract enough people who stay there. Therefore, I think more stability for the restoration of areas damaged from accident is essential. In other words, the area should stimulate people's motives to come and stay there with their original appeals. This challenge may be identical to all the rural areas that are suffering depopulation in Japan, but I could not find any suggestion about what kind of things can be the stable allure. How people decide to go back or move to abandoned areas and how relations between people can create communities is still a question for me. I would like to pursue this issue by continuously looking at Fukushima and its revitalization.

Throughout the trip, I had many opportunities to recognize myself as an outsider of the Fukushima accident because I was not severely damaged by it. However, as the tour guide of this trip emphasized, it was those who lived in the Kanto area who were using the electricity generated at Fukushima Daiichi Nuclear station. I, as one of them, need to think of this accident as my own issue. In other words, Fukushima Daiichi nuclear power station was fulfilling the great demand for electricity in the Kanto area, and I think foisting the problems involved in the accident, such as contaminated soil and water, to Fukushima is not an appropriate solution to the issue.

Specifically, some residents who were forced to evacuate from their homes think that the Tokyo area is responsible for contaminated soil, and it is not fair to store around 14 million soil bags only in Fukushima.

“As one who was enjoying a convenient life with electricity from Fukushima, I must keep looking at this problem and have my own opinions on it; I must not be content with ignorance only because I am not a resident of Fukushima.”

Finally, one moment that was particularly impactful for me was when I heard the story of a farmer in Fukushima. He was a young cattleman who brought up infant cows in Iitate-Mura. He and his cows were impacted by the nuclear accident and evacuated to Kyoto and then another region of Fukushima. After 1-year of evacuating, he decided to come back to Iitate-Mura in April 2022. Despite the difficult situations he experienced, such as insufficient subsidies from the government for the resumption of farming and continuous consciousness on the influence of radioactive materials on the soil, he returned to Iitate and tried to re-start farming. He said that the reason for his return was that he wanted to save his land for agriculture. For him, the land is essentially suited for farming, compared to other regions. His story made me feel that he thought Iitate was his home despite it being contaminated with chemicals. It was unfortunate to hear that the beef made in Fukushima is still cheaper than the beef made in other areas because of the accident.

As someone who enjoys food and other natural resources, I should not forget the existence of farmers like him who are working with pride and responsibility toward the land and animals. I am still an outsider of the Fukushima disaster, but through the field trip, I gradually noticed what I could do for Fukushima; not forgetting what happened in 2011. As well as not forgetting the damage of the nuclear disaster and the people I met during this trip, and to continue meditating on these lessons learned. Finally, I sincerely appreciate those who planned this field trip and those I visited for three days for giving me an opportunity to learn about Fukushima. The trip was fruitful, and I would like to continue learning about Fukushima for the rest of my years at ICU.

HOPE IS A LETTER WORD
BY SOPHIA MARIE WITTIG

Today we tend to boil down events, news, and even places into numbers. Whether it's the statistics of a situation, the number of the amendment being violated, the number of refugees, the transmission rates of a virus or of vaccination efficacy. Every news story and textbook unit is broken down into some graph or chart we can visualize, ruled by numbers and data. However, in spending just three days in Fukushima, I have come to realize that numbers and statistics may be useful in a lab or hold up in a court of law. However, they are far too simple to capture the lives of real people, let alone express their narratives beyond the filtered version we are fed. Before my time spent in Fukushima, the only exposure I had to the events that happened there was two lecture periods on the politics and mistrust of TEPCO, given to me by an American anthropologist who to my knowledge has never been to the area and whose research is primarily focused on Japanese social constructs. It was still an informative lecture and gave me insight into how and why the nuclear plants were built and where economic benefits the people of Fukushima received at the time. When the disaster occurred I was seven years old and living in the Midwest, attending the same school my father and grandfather went to, using no doubt the same textbooks. In other words, my prior concept of 3/11 was that it was a date, on which following a magnitude 9.1 earthquake, a 14-meter-tall tsunami landed, three reactors of the Fukushima Daiichi Nuclear power plant melted down and three hydrogen explosions occurred. According to official reports, 2319 people died, 20.5 PBq of Cs-137 and 793 PBq of iodine-131 were released, and by the following day, everyone in a 20-kilometer radius was ordered to evacuate. Those were the facts I could recite about the incident, but those are not the whole story.

The first lesson I learned on the bus ride there, was that peace research was a thing, and people go to graduate school for it. I didn't think you could quantify peace and let alone make valid proof of an argument without said data. But there I was anyway at 7 am with 16 other strangers who would say otherwise, with no sleep, four cups of coffee in me, and a five-hour drive to go.

Upon waking up from my subsequent five-hour nap, we went to our guide's home to eat lunch, where I was beyond satisfied with the explanation of cesium uptake of mushrooms and crop varieties, provided by our host. Using a Geiger counter we learned about the ambient radiation levels and received the handout, and itinerary with maps of wind patterns of the day of the event and radiation uptake into the human body. But as we were eating, judging by the murmurs of not understanding, I seemed to be the only one who was pleased to be given live radiation levels of squash and accompanying graphs and charts on the mechanisms of radiation uptake despite the point of this trip being research. From there, the numbers that ruled the narrative became less and less scientific. First, we visited the Ukedo Elementary School where the clocks stopped at 2:46 in the afternoon when the tsunami hit 50 minutes after the earthquake, while 80 students ran two kilometers to a nearby hill before evacuating. After that, it was a lecture by Prof. William Mc Michael of Fukushima University, where the numbers again transformed into nearly 67,000 evacuees are still displaced by municipality records; 0.002% of the population have returned to Futaba; and decommissioning a nuclear power plant pertains to SDGs 9, 13,14, and 17. Then calling it a day at our hotel, 10 minutes from the sea wall, with zero stores or other residents nearby.

By the end of day one, sitting alone in my bathtub in room 109, drinking coffee cup number 13 of the day and researching more in-depth the health effects of radiation exposure while trying to ignore the fact that it's Thanksgiving and I am 9,460 km away from home, I had confirmed the recommended dose of radiation per year is 1 mSv, yet the average is 2.3 mSv; that after 1,000 mSv, radiation sickness symptoms occur; that 3,000 mSv results in a survival rate of 50%; and 10,000 mSv proves fatal within weeks. At 9:03 pm, with slightly less comfort and satisfaction from my numbers than usual, I lived through the end of day one.

By the start of the second day, this time with a slightly better ratio of coffee consumed compared to the other humans on the bus, the day was off to a promising start when our host who was explaining the science behind mushroom and cesium interaction the day before, started asking for volunteers to monitor a Geiger counter themselves for the day. Of course, my hand shot up the fastest, probably because no one else was particularly vying for the chance. Nevertheless, despite having my own personal tiny machine that gives me a constant stream of new numbers to look at with every step I take, we were headed to a place where we would be standing still for a while so I could take a reasonable break from my intent staring at the display. Instead, I could put my efforts into questioning a worker on the team responsible for the interim soil storage and disposal. He explained that they sort the soil from debris, store it, then burn said debris. I don't claim to be an expert by any means, but I am admittedly still suspicious of the efficacy of that process. My initial reaction would be that burning the material and then releasing the ash and gas into the surrounding area is just as bad if not worse as leaving the irradiated debris where it is. Originally, the worker also did not specify where the debris goes, it was only after I posed the question that that fact was revealed. Still, the man being merely a worker doing his job, I refrained from further questioning, slightly irked by the idea of just burning the irradiated material, and sought comfort in my numbers via my Geiger counter. The ambient radiation level was unsurprisingly higher near the facility than the newly opened JR station where we visited previously and received the Geiger counter; but without an experiment, I have no way of proving that it was due to an increase in ash from irradiated materials or just the sheer ominous presence of a mountain's worth of radioactive soil surrounding where we were standing.

It was a similar experience at the TEPCO museum when their plan was to purify and then dilute the nuclear waste with seawater and then dispose of it off the nearby coast. With no time to research nor method of validating the workers as a credible source, also not being given access to the name of the alleged third parties confirming the safety of TEPCO's approach, the only thing I could do at that moment was going back to staring at my handy little number machine, tracking every minute change as we drove.

The Geiger counter finally gave me an outlet to experiment a bit, by standing in the same place and seeing how the readings change as the wind blows or someone walks in the brush beside me. It reached a peak of 5.78 μSv/hr at the fishery we visited, under the conditions of a breeze, light rain, and ample activity of the other members moving around the brushed area. At that moment, seeing it for myself made me feel like I was doing some sort of real research, grappling to fulfill the demand for empirical evidence that has been ingrained in me ever since I signed up for a degree in science.

However, this approach was wrong because I was in no way discovering anything new and any logical person could infer that if the bulk of radioactivity is found in the soil and debris if the wind blows or someone walks by, the number of soil particles in the air increases in the immediate area and thus increases the ambient radiation levels. However, I was still staring at a screen with numbers, and not looking up long enough to even see who it was that was unknowingly stirring up particles around me. Realizing that my efforts were essentially pointless at that point, I resigned myself to the fact that if my goal was to learn something from this trip, it is likely not going to come from a number. Thus, by taking baby steps, of course, I moved on to shapes.

First on the list was an argument on the physics of the concrete tetrapods in the ocean just beyond the seawall I was standing on, ending with slight annoyance that neither the girl I was debating with nor the boy standing and listening knew what jacks were, but more importantly without an answer as to the purpose of that shape.

“It was then and there that the stories became too real and that my ability to hide behind my wall of data and numbers was gone... The lively bunch I was surrounded with was not some group of people with nothing but a sad story that needs to be pitied or our charity, but a resilient, shining one, with a stronger sense of family and home than most will ever even come close to achieving."

But just as quickly as that discussion started, it also became insignificant. The number on my little machine and the function of a giant concrete jack meant absolutely nothing compared to the fact that the place I was standing in was where living, breathing human beings were washed away into the nearby cluster of trees because they were too busy focusing on their job to listen to the evacuation orders.

After realizing that, I put my trusted Geiger counter in my bag for the rest of the day, and walked back to the bus, not looking for patterns in the raindrops that were falling, not thinking about the particles I was stirring up with each step. Instead, my mind went to my family at that moment. My father has done nothing but works every single day I have known him just to keep our struggling, broken house afloat. I don’t know the stories of the people who passed that day, or why they didn't hear or follow an evacuation order, but I couldn’t separate what happened to them from the fact that if it were my own father, he would have been alongside them. It was then and there that the stories became too real and that my ability to hide behind my wall of data and numbers was gone. Up until checking into our accommodation for the night, my mood matched the cold, rainy weather. My view was no longer about the black-and-white neutrality of numbers, but instead one of gray, and sadness. That night, alone in the grayness, the only way out I could think of was to head to the kitchen in hopes that just like every other one I’ve worked in since middle school, even if just for a moment, I could find a sense of familiarity. I did, but I also found perhaps the brightest ray of hope I've seen in quite a long while.

The lively bunch I was surrounded with was not some group of people with nothing but a sad story that needs to be pitied or our charity, but a resilient, shining one, with a stronger sense of family and home than most will ever even come close to achieving.

Our discussion on mushrooms was not about how much cesium they can uptake, but what is one from Italy that they can say the name of in a grocery store to joke with their friends, to seem more educated. I had the privilege and honor of getting to see their contagiously smiling faces and hear the warmth of their laughter despite the cold and darkness outside, and counter to the gray narrative they’ve been painted into. Before meeting the people of Fukushima, I wrongly thought the misinformation was only about science and politics. Who should evacuate; should TEPCO have taken different precautions; is the decommissioning process and decommissioning really effective; is it safe to return and to where what is safe to eat, etc...? The list of pending questions and pertaining conflicting information in those areas is sickeningly endless. But one question that is often never even raised is what do the people of Fukushima want. In getting all caught up in what happened to them and what we can do for them, we collectively failed to ask what they want. Some have their reasons for not wanting to return while others want to go home at all costs. More importantly, the people doing the most for the people of Fukushima are not the outsiders coming in trying to assuage them with aid, or TEPCO misdirecting their money and efforts into a state-of-the-art museum, but the people fighting to pave the way for those who want to be able to come home.

Given that it has been over eleven years since the incident, Fukushima does not often appear in headlines anymore and many relief efforts have passed their one, five, or ten-year expiration dates. However, just because we have stopped hearing about it does not mean the event is over. Hundreds of thousands of people are still displaced, some content with their new lives, others waiting for their day to return to the only place they will ever consider home. The complexity of their feelings and wants can only be understood by those who have been in the situation themselves and who have had to make the decision to leave and or come back, which is why it is not just the aid organizations that stuck around or the institutions like ICU’s PRI working to keep the conversation alive that I’ve come to respect, but even more so the everyday people using their skills and in some cases nothing but perseverance to move back to the home they cherish and help bring others back with them.

These people aren't making headlines or breaking news but instead making true progress. It is very much still their town, and they know how to heal it better than anyone else ever will. What I learned from this trip was not scientific, it was not a tragic story, but instead, it was that there is hope in this world and it lies not with the government, or science and innovation, but safely in the hands of the real people of Fukushima.

WHAT IS REVITALIZATION IN FUKUSHIMA BY MIMI REDFORD

Before going to Fukushima, my image of revitalization was close to reconstruction, when the town was restored to the same level as it was before and had a certain vibrancy. I assumed that in Fukushima's open areas, revitalization was relatively achieved. However, by visiting I realized that Fukushima's revitalization is not that simple since only a few residents have returned, and it takes decades to solve the issues it currently has. In this essay, I would like to reflect on my learnings and thoughts about the challenges Fukushima has in its revitalization, along with the learning that gave me a feeling that Fukushima is revitalizing.

Reconstruction and the actual condition of Futaba town

When I arrived at Futaba town, I was speechless at the view from the bus window. The town was unique in the way that even though construction took place, there were few residents. It showed that Futaba town had just started to rebuild its town. It was also interesting that you could find some new houses along with abandoned ones, empty blocks, and brand-new buildings near a damaged shopping district. One remarkable building was the new Futaba Station, a course of the Olympic Torch Relay in 2021 to show that Fukushima has been revitalized. Sasaki-san, our guide, explained how the relay was aired in a way that people could see the beautiful station (figure 1) but not the condition right in front of it (figure 2).

Difficulties in the Fukushima revitalizing

What was the most different from my expectations was that the revitalization of Fukushima seemed so far away.

THE MAINICHI NEWSPAPERS. "福島・聖火リレー「復興途上の街並み」ルート幻に組織委同意せず [Fukushima Torch Relay "Reconstructing the Streets of Fukushima" route was not agreed to by the Organizing Committee]." 毎日新聞 [THE MAINICHI NEWSPAPERS], 15 July 2021, https://mainichi.jp/articles/20210715/k00/00m/040/129000c. Accessed 23 December 2022.

In the Great Earthquake and Nuclear Disaster Museum, there was an exhibit created by elementary school students who had evacuated and anticipated the future back in their hometowns. This exhibit gave me a feeling that it could be a motive power for Fukushima's revitalization. However, at this point, even if these children return, the situation is that possibility of them not having higher education or jobs in their hometowns is high. The returnee also said that there are situations where families are not returning because they want to live and raise their children in a safer place without concerns. Compared to towns like Futaba town and Okuma town with few residents, there were many people, including young people and families, at the Sakura Mall in Tomioka town and Odaka in Minamisoma city. The restriction on the residential area was lifted in 2017 around Sakura Mall and in 2016 in Minamisoma city. Furthermore, these areas have relatively maintained infrastructures such as schools, hospitals, and supermarkets. As explained above, it can be the length of the term evacuated, and having a maintained social system in the community makes a significant difference in whether the residents return. Furthermore, in areas where the return is not yet feasible, it is more likely for the evacuees to have a new life and the community's infrastructure to be in a non-functional situation when the area is opened.

In connection with the previous point, there is a problem relating to the contaminated soil and the Daiichi nuclear plant itself. First, for decontamination, activities are underway to remove about 5 centimeters of the soil surface, mainly in residential areas. All removed soil in Fukushima will be transported to the Interim Storage Facility in Futaba town and Okuma town to preserve it away from the residential areas. Since the half-life of radioactive cesium is around 30 years, it can be considered that the land will be used until 2045, the deadline for final disposal outside of Fukushima Prefecture. This means that the landowners will not be able to return to their land until 2045. Secondly, the decommissioning of the Daiichi is also an issue that will take at least a couple of decades. It is said that it is crucial to lowering radiation risks.

According to the Agency for Natural Resources and Energy, if Daiichi exists, measures must be continually taken to prevent contaminated water from leaking into the external environment. However, the technology to successfully remove the molten fuel from the reactor has yet to be established, and it is unclear when this will be possible. If people feel concerned about their land, it is likely that they will not come back. In both cases, it is likely to take decades to resolve and will be a factor that constrains those who want to return. Furthermore, it can be said that when residents can return to resolve these issues in the future, fewer people will want to return due to the loss of the elderly, who make up the majority of returnees, and the younger generation not having a reason to return.

Concerns in the revitalization process

Slightly different from the challenge, throughout this trip, I found that there were times when residents and local governments had different visions of revitalization, which could create problems. The returnee in Okuma town repeatedly claimed that there is a gap between the beautiful words the town hall uses, such as "revitalization" and "future," and the reality. Though it is simple, it shows that the town hall's future vision is different from what the returnees see, even though there is a high chance for them to be heading to the same future. The pastor of Namie & Odaka Church also seemed to be suffering from a disagreement with the local government. Regarding the kindergarten attached to the church. There appeared to be a division that the provincial government wanted to tear down for management reasons to reconstruct the town. On the other hand, the residents want to keep the sight as a reminder of the disaster and as a place for the graduates to gather in the future and to revitalize the community. Although it is natural to have different opinions, I felt concerned that the local government and residents have different visions of how the town should be.

Fukushima revitalizing

However, there were also encounters where I could sense progress in Fukushima*'s* revitalization.

One was the effort made in Iitate village. In the Iitate village, we listened to a presentation “Resurrection of Fukushima.”

Led by Mr. Yoichi. Furthermore, Tao, has been involved in various activities to help villagers seeking to rebuild their lives again in the village. For example, radiation measurements, radioactivity analysis of animals and plants, and conducting forums. Yamada-san, a cattle farmer, was one of the returnees that felt safe to return because of the research and data the organization provided. I found this situation of farmers feeling safe to resume their business in the village and Iitate beef starting to appear in the market as one form of the revitalization of Iitate. However, even though the cattle are produced with assured safety, the price of cattle has dropped compared to before the disaster. This was because of its negative image regarding the nuclear accident. This situation made me think that for Iitate village and its stock raising industry to revitalize truly, the role of non-residents is crucial, as well as the residents. Soon after the disaster, I remember people avoiding products produced around Fukushima because of their concerns. However, consumers can gain access to the radiation level in Iitate village and information that the cattle are made carefully nowadays. Correct knowledge of the consumers is essential to support the village’s revitalization.

Furthermore, Zutto Soko in Iitate village was also fascinating in terms of revitalization because it not only tries to rebuild the town but also creates connections between people with different knowledge and various values and tries to rebuild the village through collaboration. The system can provide the opportunity to casually exchange their visions of the village's future and create a lively community. Another initiative that gave me a glimpse of Fukushima’s revitalization was promoting renewable energy. As Sasaki-san taught us in advance of the visit, many solar power plants could be found around the Daiichi. Also, Minamisoma City, along with the aim to provide as much or more than its consumed electricity from renewable energy sources by 2030, wind and solar

power plants are being installed in coastal areas devastated by the tsunami (Minamisoma City 2). As Sasaki-san wrote that the benefit of the solar panel is that it keeps the area clean, and the initiatives of promoting contribute to creating a safe and secure community for future generations, which can be a start to revitalizing a new Fukushima. Similarly, my home prefecture, which also has nuclear power plants, is trying to promote renewable energy to prevent the power plant's operation. However, since there has been a long debate over the installation of solar panels regarding the danger of landslides and floods associated with the project, I was impressed and curious why Fukushima can promote it. What could be said by the landscape and through conversations with Sasaki-san is that temporary unused land can be secured due to the fields not being used, and because of the few returnees, there are no residents to oppose. Though the situation itself is not desirable, it is very inspiring that it took advantage of its condition and made the good out of it to create a more desirable future, which my home prefecture can learn from that decision.

I left for Fukushima having an interest in nuclear energy and wanting to know what happened in Fukushima. When I arrived in Futaba town, I was astonished at the condition, which was beyond what I imagined. It made me think about how Fukushima can revitalize that situation. What I first learned is that it is not enough to simply prepare the town to a habitable level or to reconstruct the town as they were before the disaster for people to return and revitalize the town. More than that, it was crucial for the town to be a place where people feel worthy of moving into with basic infrastructure and the feeling of safety, which can be a long-term commitment. However, looking at the effort made in Iodate village and the start of having a clean power generation system, there are positive outcomes. For this to happen, I believe it is necessary not only for enthusiastic organizations to participate in activities but also for more people to acquire correct knowledge about Fukushima and radiation and to continue efforts and dialogues, and support toward the revitalization of the region.

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TOURING THE PAST, PRESENT, AND FUTURE OF FUKUSHIMA
BY MALLORY JENKINS

Early in the morning Friday, November 25th saw a small group of students huddled in front of the ICU chapel, bracing against the chilly sunrise, waiting for the bus that would take us to Fukushima. The tour group consisted of fifteen students, one research assistant, and one professor. It would not be until after the roughly 4-hour drive that we'd meet our tour guides: Shuzo Sasaki and Karin Taira, cofounders of Real Fukushima. When the bus finally reached its first destination, which was the house of Sasaki-san's grandfather. In that space, we were able to hold a debriefing, we were welcomed with bountiful plates of fresh sushi. From there, the tour had officially begun. The debriefing ensured that the tour group members all had some baseline knowledge of the events that occurred on March 11th, 2011, the earthquake, tsunami, and nuclear disaster. With this fresh on everyone's minds, the bus took us to the ocean. Parked in front of the newly built, massive seawall, it was hard to tell there was an ocean behind the wall at all until we climbed it. From the top, the view of the violent waves was unobstructed for miles; even a distant glimpse of the Fukushima Daiichi Nuclear Power Plant steam stacks was possible to see. On this windy day, it was easy to imagine the violence conjured up by the ocean. These waves were known for surfing before the disaster. With only a few quiet words shared by the guides on top of the seawall, the atmosphere was reflective. This being the starting point of the tour was poignant. The sea is where the disaster came from–an underwater fault line, a wave of destruction–everything we were to see from then on was a direct result of this view. Even looking out at the roaring waves, it was nearly impossible to imagine the true heights they reached that day, so for that to sink in, we had to travel a bit more inland, to a prominent symbol of the disaster: Ukedo Elementary School.

The unique architecture of Ukedo Elementary School is a common image associated with the disaster. I have encountered pictures of the now-iconic observation tower more than a few times in my research. Although the school is three hundred meters inland, the tsunami inundation surpassed the entire first floor of the main building, the gymnasium, and the observation tower, leaving a visible waterline on these buildings that have also been demarcated by signs, affixed now that the school has turned into a memorial museum.

Ukedo Elementary School observation tower connected to the main building.

The first floor of the main building and gymnasium have been preserved as they were on the day of the disaster while the upper floor of the main building is now an educational space. Ukedo Elementary School prominently features what would become a reoccurring symbol during this tour: a clock, its hands forever stuck on the time the tsunami struck. The clock on the observation tower was one feature that made the school so iconic in the literature. There is certainly something striking about it; the thought of time being frozen in this place. Further cementing the frozen-time imagery is the clock originally from the front of the main building preserved in the museum despite its broken and warped state, lacking any hands at all. Whether intentionally presented this way or not, these clocks send a powerful message: this is the moment when time stopped for many; this is the moment when the time was taken away for many others, which elicited, in me, a chilling effect. Furthermore, with the sun setting on Ukedo Elementary School, our time was also up for the visit. It was time to move on to the last item on the itinerary for the day.

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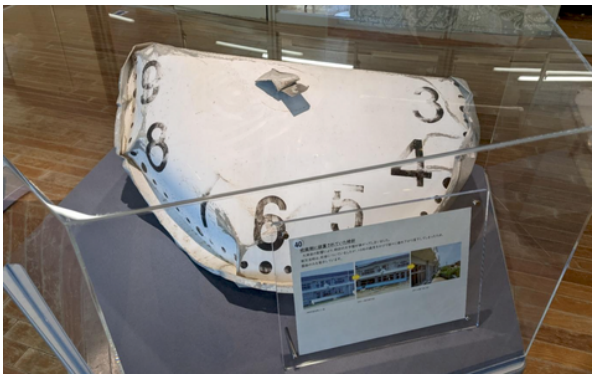

The broken clock once on the front of Ukedo Elementary School

A firehouse in Futaba town with a broken clock

The wrap-up on day one was conducted by Fukushima University faculty Professor William McMichael. He presented on his experience during the disaster and in the ten years since. His research and projects since then have been predominantly interrelated with the disaster, as a writer on the subject of dark tourism in Fukushima and one of the minds behind the hope tourism project. His enthusiasm for the region was palpable. His presentation was a fitting end to the day. On the whole, the first day, thematically, focused on the past. It involved the bare bones of what happened, giving everyone a realistic sense of scale and scope; here was the ocean from whence the destruction came, here was the water line the ocean reached that day, there was a story from someone who was there on that day. Only from that look into the past can we move on to day two–the present.

Day two being the only full day of the tour we had, the itinerary was proportionally filled. Another early morning, the first stop was the Futaba town center. Futaba town, having only recently reopened, was fairly deserted. Evidence of the disaster still abounded. Clocks frozen in time were featured heavily here, too. Even more prominent, however, were the beautiful murals adorning many buildings throughout the town making up what is known as the Futaba Art District. The Futaba Art District is a community-driven project that displays prominent figures in the region, elements of the community culture, and allusions to the current situation in the town. Each mural profoundly encompassed the community spirit. The amount of art dotted around the town was impressive; just when I thought we had seen it all, our bus would pass by more art on the way to the next destination, but a majority of the murals centered around the town center and railroad station. Also centered on the railroad station was the new residential district being built which also emphasized community with its houses in close proximity and large floor-to-ceiling windows and doors facing inward toward the other apartments. Several houses already had residents while the rest of the village was still in the process of being built. This new village embodied the hope for the return of the residents in these areas that have only recently reopened. One of whom our group ran into on the way to Okuma town and had an enlightening conversation with.

On the bus on the way to our next destination, one of our guides spotted an acquaintance farming on the side of the road. The bus driver was quickly instructed to pull over so that we could have a chat with the farmer–a former worker at the Daiichi Power Plant and a recent returnee to the area alongside his wife. With our guides as interpreters, everyone in the group had a chance to listen to his story and ask him questions about his experience. One thing that he repeatedly emphasized was particularly striking. "Don't believe the beautiful picture they will try to paint," he said, to paraphrase. It was this he kept repeating, not to believe beautiful lies. The reality was not beautiful. It was important to see through that, to see through to reality. This was a sentiment echoed by our guides. A similar purpose was the reason behind the name "Real Fukushima," Sasaki-san revealed during a conversation I had with him later that day. Hearing the farmer's words provided a new perspective on the present situation in Fukushima and everything that we would hear going forward, something that would stay in the back of my mind ever since.

Figure 4: a partial section of a mural in the Futaba Art District

Figure 5: piles of black soil bags filled with the removed, contaminated topsoil

From our short diversion, the next sight of the tour came into focus more and more before we even arrived. It appeared in the form of piles upon piles of black bags of soil lining the sides of the road. They grew in number the closer we got to the Daiichi Power Plant where most of the soil storage was located. This interim soil storage area and the power plant itself were visible from a specially set up observation platform that we stopped at to hear from some decommissioning workers while we took in the truly expansive sight. As we had seen from the bus ride there, these soil bags could not be contained in a single area. Their presence was imposing on the landscape far and wide. It was an ugly scar on the natural beauty this area was known for, hard to see past.

It showed how much more progress needs to be made in decommissioning, a fact that was shown further at the next stop: the TEPCO Decommissioning Archive. The TEPCO Decommissioning Archive was a highly curated exhibition on the progress so far in decommissioning the power plant and the lessons that TEPCO has learned from the disaster. It was presented pristinely and apologetically, showing TEPCO's commitment to reconstruction. It was beautifully presented–an antithesis to the blemished soil bags–and my mind could not help but wander back to what the farmer had said.

The reality seems much more challenging than we would be made to believe, especially after having seen some more ruins left by the disaster on the way to the archive such as an old fish hatchery and another elementary school, neither preserved as a memorial but left to decay with time and be overgrown with foliage. Stepping onto their premises felt taboo like these were sights we were not meant to see–hidden away, hiding under the overgrowth. However, in that way, they showed the reality more accurately than a presented and commodified monument. Their existence has no ulterior motives or beautiful lies. If the soil bags were a scar, these sites were raw wounds yet to close. They were painful to see but all the more valuable for that pain. Something Professor McMichael had said the previous day becomes relevant here, that to see the light of the area more brightly, you must first see the shadow. When our time at the interim soil storage and decommissioning archive was over, we returned to Futaba town to make a final stop at the Great East Japan Earthquake and Nuclear Disaster Memorial Museum. The most stunning feature of this museum was a long winding, circular ramp with a comprehensive timeline of events between

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March 11th, 2011, and the present which I imagine will be added to as time goes on. The timeline was the starting point leading into the other exhibitions. It helped conceptualize the present in Fukushima and served as a literal reminder of how long the journey has been to get here, even if there was still a long way to go. It was both harrowing and hopeful, both light and shadow. And it was after the museum that our group saw some true light in the form of Odaka town's Christmas illuminations. It was already dark by the time we reached our accommodation for the night in Odaka town, but all the better to see the surprise of the illuminations. We were collectively captivated by the radiant lights coming from every direction. Herding the group to the accommodation without multiple people getting distracted and following the lights was a challenging task for our guides.

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Once settled in Odaka town, we had some lovely encounters with locals and the freedom to explore the illuminated town to our heart's content. Besides the Christmas illuminations, I was stunned by the ability to see an abundance of glittering stars in the night sky, a sight so incongruous with the normal night sky in Tokyo with the city's endless light pollution. Spirits were lifted. Dinner at the accommodation was a hearty affair with heartfelt conversation bubbling up all around. Being in Odaka town felt fully grounded in the present, basking in the beautiful mundanity. Sure, the night was dark, but it had the capacity to be filled with light. Experiencing this moment, this present time in Fukushima was something special and led to a somewhat more optimistic view of what the future might hold.

Figure 6: a Christmas illumination in Odaka town, one of many

The future of Fukushima would be the subject of the third and final day of the tour, a day that–like the entire trip so far–felt too short. Over the course of the day, we encountered three new projects taking place in Iitate village: ZuttoSoko, or Forever Warehouse, a reborn cow-farming operation, and the NPO Resurrection of Fukushima. ZuttoSoko was a newly envisioned collaborative space where community members could come together and work on projects whether they be scientific or artisan. The warehouse featured an office space, a rearrangeable multimedia area, a woodworking zone, an aquaponics room, a shopfront, and more free space to be utilized in a variety of ways. Even just having

opened, several projects were already in full swing like the fresh wasabi growing in the aquaponics facility. The space was creatively enticing, sure to build inspiration for any who take advantage of it. Only time will tell what wonders the community will get up to with this fantastic new space. Surely the Forever Warehouse has the potential to leave its mark on Fukushima forever. The next project was not so much a new one, but a newly returned one that also helped a new restaurant succeed. Right before lunch, with hungry stomachs, we stopped to talk to a local cow farmer who had evacuated with some cows and had eventually returned to regrow the family business from those same evacuated cows. He shared his vision for promoting Fukushima beef as a top-tier beef prized throughout the whole country. His passion was infectious, and we shared his enthusiasm as we gazed lovingly at the adorable, fluffy black cows. Then we were told we would get to eat some of those cows. It was a humorous addendum and many of us expressed hesitation to eat at first, but when the food was served at La Kasse restaurant, the hesitation went away. Before each one of us was a beautiful plate of all locally sourced dishes. The restaurant had only been opened earlier this year, but if the taste of the food was anything to go by, their future success should be guaranteed. Before we went back to Tokyo, we had a brief chat with the founder of the NPO known as Resurrection of Fukushima who had joined us on the day's journey since ZuttoSoko. He described the NPO's projects in revitalizing lives and industries in the area in a sustainable manner. When all was said and done, it was difficult to say goodbye. Over less than three full days, we covered so much; we looked back, we looked at the present, and we looked to the future; we saw shadow and light. As I have encountered in my research, there are mixed feelings about calling Fukushima tourism dark tourism or not. Whether the label fits when it comes to definition may be two entirely different discussions. On my previous trip to this area back in August, the tour guide then–when asked about the subject of dark tourism–said that dark tourism only focuses on the past, whereas Fukushima tourism diverges in looking to the future. If that was the case, Real Fukushima certainly managed to include items in the itinerary that looked to the future, especially on this last day. This cohesive and chronological narrative of the tour spoke volumes for gaining a deeper understanding of the region–ultimately, an understanding of the reality.

FORGOTTEN BY THE WORLD : A VIBRANT AND RESILIENT COMMUNITY

BY LUCIA PULIDO FENTANES

More than 11 years ago, Fukushima Prefecture was hit by one of the most complex disasters in recent human history. On March 11, 2011, an earthquake of magnitude 9.1, followed by a tsunami with waves over 40 meters high, hit the northeast coast of Japan and wiped out everything within a radius of ten kilometers. One of the buildings that were struck by the tsunami was the Fukushima Nuclear Power Plant, provoking a cooling system failure in one of the nuclear reactors. Explosions in the four additional reactors occurred in the hours following the tsunami, resulting in the most dangerous nuclear incident in history. According to our guides, "the Fukushima triple disaster left sixteen thousand dead, three thousand missing, countless numbers of injured, and one hundred and sixty thousand evacuated." Moreover, the winds and other weather conditions in the area extended the 10-kilometer radius zone of contamination, called the exclusion zone, to a twenty-kilometer radius around the nuclear power plant, forcing the government to order the evacuation of the cities of Minamisōma, Tamura, and Tomioka, and the towns of Namie, Futaba, and Ōkuma, on March 15 of the same year.

Since then, the Japanese government has worked steadily to decommission the destroyed Fukushima plant, deal with the contaminated water and solid waste caused by the nuclear disaster and make this prefecture safe again for its inhabitants. To this end, it developed the Fukushima revitalization strategy, allocating public resources to i) ensure health safety for the inhabitants; ii) restore the destroyed buildings; iii) reactivate the industry and promote employment; and iv) transform the image and perception that Japanese have of the area. According to Professor Matias Chiappe Ippolito, the largest public disbursement for Fukushima was made in 2014, when the government allocated most of the revitalization resources to reconstruct streets, bridges, and houses, rebuilding a total of thirty thousand homes at US$220,000 each (Chiappe, 2022). Furthermore, the prefecture reinaugurated the Jōban train line that connects the reopened sites of the prefecture and several coffee shops, stores, and restaurants, seeking to promote spaces for recreation and reconnection among the inhabitants. The architectonic design of some of the stations is a tribute to the former destroyed and abandoned ones, as they keep the stopped clocks, with the time of the disaster, in their facades.

"...WITH THINGS AS THEY ARE NOW, IT COULD TAKE UP TO A CENTURY TO MAKE FUKUSHIMA A LIVABLE PLACE UNDER NORMAL CONDITIONS FOR CITIZENS."

However, despite the various measures implemented by the government, experts have argued that with things as they are now, it could take up to a century to make Fukushima a livable place under normal conditions for citizens. Thus, although the government provides the returnees with subsidies, of the hundreds of thousands of evacuees, only about 10,000 people returned to the prefecture. Families have not returned for many reasons including the lack of job opportunities and, therefore, stability for their families, the lack of specialized industry, the fear of the consequences that the different levels of radiation can cause in the health of their families, the distrust in the government, the inexistence of community or social fabric, and the fact that in most of the cases, these families would have to start from scratch once again (Ito & Ando Yoiko, 2012). The picture is undoubtedly bleak from many points of view. The fields used by the community for food production are now used for depositing the packages of the removed contaminated soil from the exclusion zones. The schools attended by the community's children are now museums of the tragedy, and those rebuilt, and operating are filled with empty school chairs awaiting more students to come. What once were vibrant streets with houses and shops are now empty lots with all their property and constructions demolished. In short, the streets of Fukushima's various towns and communities are a constant reminder of the lags that were the close ties and economic dependency.

Today, the vast majority of people in the area emphatically reject the existence of nuclear power inside Japan and continue to have significant concerns about the risks posed by the use of this energy. The Japanese government seems to have a different perception and approach to the use of this power in its territory. As a matter of fact, the recent devaluation of the yen and the high price of oil and gas in the world has sparked a renewed interest in nuclear power in the Japanese government. Therefore, Japan has increased its efforts to demonstrate to the Japanese, and the world in general, that the revitalization plan implemented by this country in Fukushima has been a success and that the consequences of the nuclear disaster are less severe than they appear. To this end, in 2021, the government ordered the extension of the support program for the Tohoku region until 2031 to implement the so-called "second phase of reconstruction and revitalization" plan for the areas affected by the natural disaster and the atomic disaster.

Among the measures they ordered, we highlight the following: assistance for economic revival, psychological and other aid for those still suffering from the consequences of the catastrophe, decontamination of new areas, the establishment of new transport infrastructures, and the establishment of academic and research centers as poles of job creation. The plan also extends the decommissioning process of the Fukushima Daiichi plant until 2050 and reiterates the urgency of resolving the problem of the contaminated water that is still stored in the plant's facilities. In addition to these measures, the Japanese government ordered the Olympic flame to pass through the prefecture to show Fukushima's recovery. According to the perception of those interviewed on the study tour, the evacuees still distrust the administration and have more fear of radiation, and a higher perception of the lack of opportunities and stability in the region. Even those who have returned to the prefecture do not trust data that is published by the government. They point out that they know radiation is part of their lives but trust their safety and well-being only to their own radiation meters.

The crisis of distrust generated by the government in Fukushima's residents and evacuees has deepened over the years to the point that, to date, no one has been convicted for the disaster, and the prefecture's revitalization plan has had little or no participation from its primary beneficiaries, the people (Brown et al., 2016) In many cases, the infrastructure works and industries that have come through government action do not meet the expectations of the citizens who dream of seeing their community vibrant, active and prosperous again. For them, the government has prioritized the execution of large infrastructure projects over other vital community needs. The Japanese government, recognized worldwide for its disaster risk management, seems to have still much to learn and improve in its approach to post-disaster reconstruction of disaster-affected communities. According to the United Nations University, communities must be at the center of the reconstruction in any crisis scenario (Mosneaga & Totoki, 2015). Palliative measures for those affected cannot be limited to economic compensation, periodic health check-ups, or housing donations. Although these measures may occasionally help, they do not solve the more structural problems that attack a community that has lived through terror, loss, pain, and destruction and is forced to start all over again regardless of the different stages of life of its inhabitants.

Therefore, comprehensive initiatives that encompass the creation of jobs and means to ensure subsistence, shelter, education, and recreation, but also the mental health and mourning processes of the affected population are urgently required. To this end, the government must make an additional effort to work hand-in-hand with civil associations, para-governmental institutions, and non-governmental organizations to understand their priorities and most immediate needs, to fulfill the community's expectations of the territory that is their home. Although this is not a simple matter, the creation of post-disaster care systems in Japan must start to count with the active participation of the affected communities and individuals. These systems must revolve around empathy and cooperation, overcoming the conflicts and differences that may arise among the actors involved in the process, and strengthen the relation between the civil society and the government. The community must also be highly committed to the process and both parties must guarantee their constant presence in the inspection of the regulations processes, at the implementation of activities, and at controlling the expenses. This is the only chance of achieving a vibrant, populated, vital community ready for a new stage of prosperity in the region. Until that happens, Fukushima will continue to be an example of a resilient, motivated, cheerful, and welcoming community that, in the last 11 years, has excelled at developing new tools and technologies to overcome the radiation problem in relevant areas such as food safety and renewable energy (Hirano et al., 2020). However, it is also a ghost prefecture that will remain forgotten by the world.

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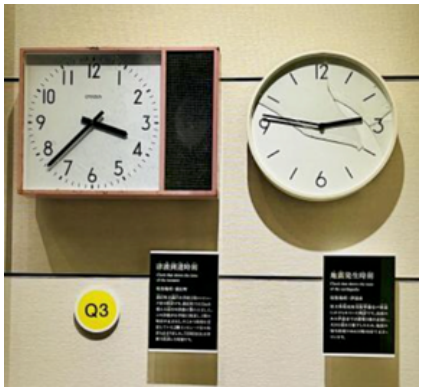
FUKUSHIMA NARRATIVES: A PERSONAL REFLECTION ON THE PRI FUKUSHIMA FIELD TRIP BY AUBRY FARA-ON FARA-ON

Time stood still. This might have been the feeling that the people of Tohoku had felt when a 9.4 magnitude earthquake shook the land on March 11, 2011, at 2:46 PM. The feeling of being frozen in time was further amplified when a 46-meter-high tsunami hit them after a few minutes. The subsequent radiation fallout eventually happened in the following hours. Time may have frozen, and everything around them halted to a deafening, chaotic stop. I also felt time held still. For me, everything seemed to stop at 2:46 PM too when I set foot in Tohoku on November 25, 2022. I felt like I was transported back to March 11, 2011, right at the exact moment when the clocks there stopped at 2:46 due to the earthquake, the tsunami, and the nuclear fallout that followed. I felt like I was looking at the chaos of the compound disaster around me as if I was there during that time.

I was one of the 15 ICU students given the opportunity to join the Peace Research Institute's (PRI) Fukushima Field trip from November 25 to 27, 2022. I remember feeling excited, scared, and sad while on our way to Tohoku. I was also excited to be at the ground zero of a disaster of that magnitude that has spelled tremendous effects not just for Tohoku, not just for Japan, but for the rest of the world. I was scared and sad to finally see and know the extent of the damage to the place and the people. On our way to Kawabusa, we were greeted by thousands of black bags containing contaminated soil in vacant lands, empty highways with no cars and pedestrians, and unkept shops, houses, and gardens. Nature seemed to overtake the land as vegetation grew over empty buildings and farms. Kawabusa has had 12 returnees since it was opened for the return of residents.



I felt increasingly at a standstill when we visited Ukedo Elementary School, a school 200 meters away from the Pacific Ocean. I saw with my own eyes the extent of the devastation caused by the earthquake and the tsunami. I cannot describe the feeling I had when we were going around the school, and I cannot imagine the horrors that once befell that school and its students and teachers. Stories told us that all 80 students and teachers were successfully evacuated when they ran to the nearby hill during the 50 minutes from the tsunami warning to the actual onslaught of the more than 40-meter-high waves. Schools were usually designated as evacuation centers during disasters. Still, when the tsunami warning was issued, the teachers took the initiative to run for higher ground and not stay in the school. A different and tragic ending would have happened if not for the urgent decision of the teachers to run for at least forty minutes and bring the students to take refuge in the hills. The evacuated students and teachers stood safely at the Namie Town Hall while watching the landscape around them destroyed by the waves. The school now stood as a monument to the courage and initiative of the teachers and students during the disaster. The myriad of unexplainable feelings I had since we arrived in Tohoku was getting heavier for me as we passed by a nursing home that was left untouched since 2011. We can still see what and how it was 11 years ago when its occupants hurriedly left the place. The place has now become just an empty building with overgrown plants around it. We also visited Kumamachi Elementary School, an evacuated school near the nursing home. The heaviness of feeling the fear and terror felt by the students during the disaster seemed to still hang in the air around the school as I watched the classrooms in disarray how it was 11 years ago. The same is true when we proceed to a fish hatchery over a hilltop, but it is still ravaged by the tsunami and left in crumbles despite that it is high atop a hill. In the ruins of the hatchery, we can see the ocean below and feel its might as its waves crush the rocks below us.

We visited the Great East Japan Earthquake and Nuclear Disaster Memorial Museum. Once again, time stood still for me as I investigated the records that had been the sole witness of the compound disaster that day 11 years ago. The museum has exhibition spaces and storytelling areas where firsthand experiences are displayed, recounted, and retold to visitors as experiences from that day and as lessons for the future. The exhibits and photographs in the museum depicted how the ordinary lives of the residents were taken away from them and changed dramatically in an instant. The museum cannot precisely relay the events that occurred on March 11, 2011. Still, it was the closest thing to making everyone feel the experiences and ponder the lessons all must take to heart.

We spent the nights in Futaba and Odaka. These were the areas where residents were evacuated due to tsunami and nuclear fallout. There are still empty houses and shops, and traffic is still few. Some residents have yet to return to these areas despite the ongoing revitalization programs of the government. At night, silence and darkness are still dominating the area.

"AS CLICHE AS IT SOUNDS, I HAD THE FIRSTHAND EXPERIENCE OF SEEING HOW, WHEN A MAN HAS FALLEN, HE WILL SURELY NOT STAY ON THE GROUND FOR LONG BUT WILL RISE STRONGER AND BETTER."

However, I have realized that despite the feeling of being frozen in time, life goes on. As cliche as it sounds, I had the firsthand experience of seeing how, when a man has fallen, he will surely not stay on the ground for long but will rise stronger and better. Where tragedy fell, seeds of hope sprung up. The hope inside me grew as I stayed longer in the area and overpowered the fear and sadness I felt when we arrived. The resiliency and ardor to survive of the people in Tohoku were remarkable and heartwarming as they came together to rise again despite the insurmountable challenges that the disaster left them. Ukedo Elementary School was made into a museum to remember the remnants of the disasters and as an opportunity for future generations to think about disaster prevention.

Visitors to disaster museums have the chance to see the real need to prepare and manage possible similar disasters in the future through memorabilia. On the other hand a seawall along the coast of Futaba was also constructed, and mangroves replaced the once-business and housing areas along the coast. The government has also completed new road networks, bridges, and other public infrastructure projects in the disaster-stricken areas. The academic community of Tohoku, like Fukushima University, has also played its part in the recovery and reconstruction after the March 11 disasters. Another group of private citizens, scientists, doctors, and independent-thinking people have formed a public organization to resurrect life and create industries in disaster-stricken areas. NPO Resurrection of Fukushima and ZuttoSoko warehouse project in Iitate were also making parallel efforts alongside the government to ensure revitalization programs are accomplished in Tohoku. Some of the residents started planting flowers in rice fields. Some of them began making products like silk and pottery as initiatives to revive the region's economy. Christmas illumination was ongoing in Odaka, and lights lit up the town park and main roads at night. Christmas will once again be celebrated in Tohoku.

Newly established town centers like Futaba opened in August 2022 only. Okuma is starting to be filled with residents returning from temporary evacuation housing. Inspiring artworks in buildings and houses can be seen in Futaba. A newly constructed train station, railways, roads, shops, and housing units can be seen in Okuma. Government operations were already underway as buildings were built and residents started to return one by one to their former homes. Hotels and shops were also beginning to open in the once-abandoned areas of Tohoku. The returnee residents were gradually tending to farms. We even happened to pass by an old couple tending their gardens along the road and talked to them. The man formerly worked in a nuclear power plant and became a farmer when he retired. They returned to Okuma three years ago and are now farming their lands and sharing their produce with their neighbors in the housing complex. I sensed a tinge of sadness and regret in his voice when the man said that the nuclear power plant that made possible the prosperity of their town would be the very reason for their town to be abandoned and for their lives to be uprooted. It was heartwarming to see young people have returned to Tohoku like Yutaka-san, a cattle farmer, and the young owner of La Kasse Restaurant in Iitate. A survivor student of Ukedo Elementary School has also become a

museum worker in The Great East Japan Earthquake and Nuclear Disaster Museum. She has been among the many survivors, happy to share their experiences and lessons with others. We were also fortunate enough to be allowed to visit a church in Odaka, currently with one member, and talk to the church minister. Despite the uncertainty he faced in reviving the church, the minister regretted nothing when he decided to return to Odaka. A tragedy can never quell man's faith in the divine. Still, it can be strengthened and nourished by the difficulties that make man cling to a higher divine power.

We went next to an observatory overlooking the interim soil storage where millions of black bags with contaminated soil were stored on what was once farmlands and housing areas. The once fertile earth of Tohoku, conducive for agricultural products, was now contaminated with radioactive materials harmful to any life forms. The contaminated soil stored in the facility must be kept until 2045, as cesium has a 30-year effectiveness span. Plans for the soil after 2045 have yet to be discussed, as tons of contaminated soil still need to be gathered, processed, and stored safely. I was in awe at the magnitude of things that needed to be done for the reconstruction and revitalization of the area. However, what is worth mentioning is that the government and the people of Tohoku and Japan have been doing exactly what needs to be done, although all seems impossible to do. The innovativeness of the Japanese people was inspiring. What stood out and deeply moved me while looking over the soil storage facility was seeing in the middle of it a cemetery that was left untouched. It was painful to know that the residents' culture, traditions, history, and ordinary way of life were uprooted and might just be lost forever because of the disaster. But the cemetery was preserved, and it still stood there amid all the contaminated soil bearing witness again to how man can adapt and survive life.

Thousands of solar panels can be seen in various areas in Tohoku. This signaled the actual application of the lessons learned from the disaster, especially from the nuclear fallout. Instead of relying solely on nuclear power, renewable resources like solar, wind, and water are being explored. The price paid to learn this lesson is challenging and daunting, but it is never too late to act on it and give future generations a much better chance.

Lastly, the most striking aspect of the trip that sparked hope in me was the Tokyo Electric Power Company (TEPCO) statement in their Decommissioning Archive Center. In one of the videos in the archive center, TEPCO said that they are taking responsibility for the arrogance and overconfidence they had committed in their nuclear power plant operations which might have caused the fallout when the earthquake and tsunami happened. In other words, TEPCO acknowledges that more could have been done. Still, they are humbled to deal prudently and sincerely with the countermeasures to ensure the safe decommissioning of the nuclear plant. Hence, disasters can humble even the mightiest, and this was what March 11, 2011, triple disaster did to TEPCO.

Eleven years ago, on March 11, time stood still in Tohoku. However, the people there united and moved the hands of time again, pushing it forward despite the tragic burden of loss and uncertainty they were carrying in their hearts. There is still a lot to do for the total revitalization of Tohoku. The government cannot engage in all efforts alone, and citizen cooperation is necessary to ensure that all regional stakeholders are taking the same trajectory. Therefore, the reflections outlined in this essay are seeds of hope and signs of life that had sprouted in the once nearly-dead Tohoku area. For me, these signs of life moved the hands of time again for the people of Tohoku who have survived the worst life-changing disaster in their lifetime. These seeds of hope made me feel that the hands of time have indeed moved again.

I arrived in Tohoku with a scared and heavy heart, but I left it with a heart full of hope and certainty that Tohoku would rise again from the ruins. And time flies again.

WHAT IS NEXT? A REFLECTION ON FUKUSHIMA
BY MOMOKO MORI

In 2011, 3.11, a huge disaster, including tsunami and large-scale conflagration, attacked East Japan. One of the most shocking facts was the hydrogen explosion had occurred in Fukushima's nuclear power plant, and radiation leaked from there to the villages. The accident was recorded as the worst nuclear power explosion, and humans had never experienced such an accident. After the earthquake, lots of discussion relating to nuclear power plants burst, and most of them were blamed for the responsibility of TEPCO and the Japanese government. In particular, mass media instigated people to think that nuclear power plants were the roots of evil, condemning the introduction of nuclear power plants. However, nuclear power plants have a positive impact on the environment that they would not emit CO2, and the construction cost is relatively low. Currently, because global warming continues to progress, and people are forced to think of a solution to this, nuclear power plants are being reevaluated even in Japan. There are pros 1) alleviation of environmental impact, 2) reduction of fuel export, 3) economic performance, and cons are 1) concern for health, 2) radioactive waste for the usage of nuclear power plants. This essay will show the implication of Fukushima's accidents, introducing the positive and negative arguments towards nuclear power plants.

"IN SPITE OF THE ACCIDENT OF THE NUCLEAR POWER PLANT IN FUKUSHIMA, POSITIVE OPINIONS OF NUCLEAR POWER SEEM TO BE GROWING IN RECENT DAYS."

The Fukushima accident illustrates human's overconfidence in the nuclear power plant myth over nature, and they had underestimated the risk of nature. In other words, the Japanese government strongly believed the myth of nuclear power plants, promoting their usefulness. Before the accidents occurred, there used podcasts about the commercials of nuclear power plants, and some of them adopted famous TV stars in Japan, diffusing positive images of nuclear power plants for the Japanese. For example, there was a time CM on YouTube when a famous Japanese actor said the nuclear power plant is the future of energy, not emitting CO2 ("Nuclear Power Plants CM"). In addition, during the Fukushima field trip, students could see there are signboards engraved with "nuclear power plant, the energy for bright" in Futaba town. This sign clearly illustrates that the justification of nuclear power plants was conducted in the accepted area, and people are subject to thinking that nuclear power plant is safe. However, there is a risk to nuclear power plants, and the government should explain that as same as the advantages of nuclear power plants. For example, after the accident, it was revealed that once the land was contaminated with radioactivity, residents could not live for a long time, resulting in the decay of the town. During the trip, students could hear the story of the resident of Okuma town, and he seemed to be angry with the victims of the accidents. The reason may be the lack of recognition of nuclear power plant disadvantages, and this comes from the insufficient explanation of the government. Therefore, the Japanese government had not paid attention to the risk of nuclear power plants, believing in the myth of nuclear power plants.

As the previous paragraph mentioned, nuclear power plants caused cruel accidents, and many people argue to stop its uses due to the risk of the accident. However, people could not simply condemn the failure of the government and TEPCO. It is obvious the town of Fukushima, where nuclear power plants had been accepted, used to enjoy their profit of them. During this trip, Mr. Sasaki represented that Futaba town used to be relatively poor, and it became economically wealthy due to nuclear power. People might think the nuclear power plant saved the town. Actually, according to the ranking of financial strength in Fukushima prefecture, Futaba town is ranked top of all municipalities, and also Minami Soma accounted for a high rank ("Fukushima Prefecture"). Subsequently, nuclear power plants led to the prosperity of the town, rendering town wealthy. Consequently, people could not simplify the responsibility of nuclear power plants for the official, and taking into account their position is essential in order to step forward with this issue.

In spite of the accident of the nuclear power plant in Fukushima, positive opinions of nuclear power seem to be growing in recent days. To understand nuclear power plants correctly, people need to examine the positive and negative sides of nuclear power plants. One of the affirmative arguments toward nuclear power plants is the alleviation of environmental impact in respect of carbon reduction, and currently, this is the main goal of humans due to the increase of global warming. According to the US government survey that was conducted across 48 states, the average surface temperature has continuously been increasing since 1980 ("Climate Change Indicators"). Also, average temperatures per decade have dramatically risen since the late 1970s ("Climate Change Indicators"). For example, despite the ocean temperature per decade having risen 0.08 degrees Celsius in the time of 1880, the rate has drastically risen, and it is currently 0.18 degrees Celsius ("Climate Change: Global Temperture"). The above evidence expounds that global warming is an urgent demand problem, and people immediately tackle this. Carbon dioxide comes from the burning of fossil fuel use, in particular, the process of electricity production. For the solution, the nuclear power plant has been proposed as it contributes to the reduction of the CO2 emission rate. The average CO2 emission per Kilowatt-hour of nuclear power is 12, whereas coal accounts for 820 ("How can nuclear"). In other words, the nuclear power plant is eco-friendly and obviously reduces carbon dioxide emissions. Therefore, the environmental pressure would be mitigated, contributing to mediating global warming issues.

The other supportive argument for nuclear power plants is the reduction of fuel export. In the process of the production of electricity, it is inevitable to use oil, natural gas, and fossil fuel, which could not be dug out in Japan. Thus, Japan needs to import these sources from the Middle East area as to oil, Russia in respect with natural gas, and Australia for fossil fuel. This implies that Japan depends on deposits from other countries, and the amount of import would definitely be determined by the import countries' situation. However, there is a problem that some areas do not socially and politically stabilize, and Japan takes the risk for them. For example, since the Russian invasion of Ukraine happened, Japan has been concerning the interception of export from Russia. The unclear situation of export brings about the price increase of power, and Japan needs an alternative to the power supply. For this, the nuclear power plant is suitable because there is no need to export resources from precarious areas. Nuclear power plants basically require enriched uranium, and this is exported mainly from Australia and Canada, where the political situation is stabilized. In addition, enriched uranium enables to the extraction of high energy from few amounts of uranium, and Japan does not have to transport vast amounts of resources. For instance, in order to produce one-year-old electricity for a household, 490 kg of natural gas is necessary, whereas it demands only 0.011 kg in the case of enriched uranium ("The fuel of nuclear"). What is more, nuclear power recognizes as the highest capacity factor compared to other energy resources (US Department of Energy). For instance, the research shows that the capacity factor by the energy of nuclear power is approximately 92.5%; in contrast, it is 74.3% in the case of geothermal power, which is currently well promoted. This data shows that nuclear power plant is eco-friendly and efficient compared with other green energy. Hence, the construction of nuclear power plants in Japan renders to reduce the transport of resources from overseas, alleviating the concerns about the unstable supply of electricity.

Another favorable argument for the issue is the economic performance of nuclear power plants. The cost of the electricity that is produced by nuclear power plants per 1kWh is 10.1 yen, and this is the cheapest electricity compared with other power generation methods (Agency for Natural Resources and Energy). Coal accounts for 12.3 yen, and in the manner of renewable energy, including wind and solar power, it would cost between 21 to 24 yen per 1kWh (Agency for Natural Resources and Energy). This signifies that the cost of power generation by nuclear power plants is relatively cheap in contrast to other power supply systems. Some people wonder if the cost would be increased if there were any accidents at nuclear power plants and whether people should pay extra compensation money. However, TEPCO calculated the cost of the accidents and concluded that the cost would not be equal to or exceed the electricity of other power supply methods such as coal and renewable energy. Consequently, nuclear power plant entails economic efficiency, and some people support this method because of this perspective.

Needless to say, there is a counterargument that nuclear power plants should be banned due to the risk of accidents. As the previous paragraph discussed, Japan experienced the nuclear power plant accident in Fukushima, and it is estimated as the worst nuclear power plant accident so far. Students could hear the voices of residents for nuclear power plants, and most of them showed disagreement with that. For example, the farmer man who we met on the corner of the street in Okuma town was resentful of nuclear power plants and TEPCO's attitude since they negatively transformed the town. Similarly, Mr. Tao showed strong disappointment in the damage to nuclear power plants because the accident rendered the town irreversible, and the nature around there was devastated. These two opinions relate to the risk of nuclear power plants, and it is true that nuclear power plants incorporate threats to human beings coming from radioactivity. When nuclear power accidents happen, high radiation is released, and this leads to causing serious health damage, such as cardiovascular disease and cataracts (National Cancer Institute). The primary issue is that the radiation would result in cancer because of the negative impact on DNA. Therefore, radiation exposure by nuclear power accidents brings about health issues that may link to death, and many people are concerned about this point.

The other negative side of nuclear power plants that people need to heed is the negative effect that stems from enormous amounts of radioactive waste. In Okuma town, students could see the landscape that covers an incalculable number of black plastic bags, and in this, decommissioning soil is packed. These decommissioned materials emerged from the Fukushima accidents, and it would take at least 30 years to complete decommissioning. (Nuclear Emergency Response 1). At this moment, people could not either enter or use the land, becoming a burden for the young generation. This issue is not merely the treatment of decommissioned soil waste, but it directly leads to the town's decay. For example, in Futaba and Okuma towns, where students visited during the trip, evacuees did not return to the town even though the City Hall prepared adequate accommodations for returned residents. The returned resident of Okuma town mentioned that the reason for this comes from the limitation of the profession, and it is evident that people could get a profession mainly related to decommissioning. Actually, few people have returned to the accident-affected town, and there seemed to be no young people. This reality implicates the secondary damage of the accident, which visually destroys the inherited atmosphere of the town and the culture. As a result, the decommissioning waste has a negative impact on the town, and this is the primary factor that people show disagreement with for nuclear power plants.

To summarize the aforementioned argument, the nuclear accident that happened in 2011 demonstrates the overconfidence of human beings toward nature. However, people could not simply condemn the responsibility of the government and TEPCO because the nuclear power plants accepted area in Fukushima had enjoyed the economic profit of that. Due to this reality, people need to examine the feature of nuclear power plants clearly, and there are advantages and disadvantages to the use of nuclear power plants by considering Fukushima residents' point of view. On the positive side, people argue for alleviation of environmental impact, reduction of fuel export, and economic performance. In contrast, people claim concern for health and radioactive waste from the usage of nuclear power plants.

A Journal or Personal Reflection

From this trip, I found 3 difficulties in Fukushima's recovery from the disaster; 1) the remnant of the tsunami and nuclear power plants, 2) the evacuee's anger toward TEPCO and the government, 3) the irreconcilable conversation between TEPCO and local residents. What is more, 2 questions that relate to Mr. Tao and Mr. Sasaki's comments arose.

The first hardened factor that is the remains of the tsunami and nuclear power plants. I consider that the protection of the remains of the earthquake and nuclear power plant is necessary for showing people the achievement of some extent of recovery. This is because people who did not experience earthquakes understand the situation at that moment through remains, and also could know the affected people's efforts of recovery. During the trip, students could see some remains such as Home town of Fukushima Daiichi, Sunlight Okuma & Futaba Hospital, Fish nursery, and Kumamachi Elementary School. These remains are not well conserved, and the buildings seem to be devastated due to the climate conditions. I asked a question to Mr. Sasaki whether there is any plan that the building which is Fish nursery would be reinforced. He answered that since the land of the Fish nursery is no longer the land of the village but the Japanese government,

residents could not conduct reinforcement work, and there seems to be no plan that the government will strengthen the remains. Therefore, Mr. Sasaki claims that the remains would be ruined, and disassemble for the collection of wood. However, Mr. Sasaki said people should not clean up the remains for the younger generation to tell the miserableness of the victims of the nuclear power plants and tsunami, even though the remains would be devastated. From my standpoint of view, the remains should be preserved because people who do not experience the earthquake could understand the damage to nuclear power such as children and foreigners. Children who are under 15 do not experience or remember the earthquake, and there is a great gap of interest in the earthquake between children and adults, despite of greatly affected area. This time, I could not conduct an interview with children, but when I did that in Otsuchi town, Iwate Prefecture which is affected by the tsunami, the 15 years old students know about the earthquake from hearing their parents' story but seems not to care about the disaster seriously. In other words, for them, the earthquake is a past event and they live for the future. In contrast, affected people especially adults have changed their life due to the tsunami, and most of them said that their life that exists now could not explain without the impact of the earthquake. This means that they live with their cruel past, and it is inevitable for them. Accordingly, there is a great difference in how people think about disasters due to the absence of earthquake experience. In order to reduce the gap, I recognize that children should see the remains of earthquakes, and the preservation of the remains is needed. However, as Mr. Sasaki explains the land is owned by the government, and it seems they have no room for thinking about the remains. What the government prioritizes is handling contaminated soil. Therefore, realistically, it is challenging to expect the government to protect the remains, and it is inevitable to devastate the remains. Still, I believe there is a way of lasting the remains that people could share the photographs through SNS with others, letting them know the existence of the remains.

"...THERE IS A GREAT DIFFERENCE IN HOW PEOPLE THINK ABOUT DISASTERS DUE TO THE ABSENCE OF EARTHQUAKE EXPERIENCE."

The second barrier to recovery is the irreconcilable conversation between TEPCO which arose from the nuclear power accident and local residents who are greatly affected, victims. There are mainly two opportunities that students could hear; the returnees' interview at Okuma town, and Mr. Tao who organizes the NPO Resurrection of Fukushima. In the former story, the man used to work at Fukushima nuclear power plant, and he had been promised to work there until retirement age. After the series of disasters happened, he evacuated into temporary housing, and then finally returned to Okuma town. He said that people should not believe TEPCO and local government promise if it appears to be decent. These factors are intended to explain the ideal figure of the town, apart from reality, actually, there is few jobs and there is no reason that people especially the youth should return. That is, because of the nuclear power plant accident the town transformed into an unattracted area, and this cannot be irreversible. I thought the man's utterance is rather radical and does not consider the effort of the local government. Nevertheless, I could agree with his opinion that people would not come back unless there is no suitable job. During the day, students including I could walk around the town, and it was hard to say that the town attract people especially youth because the town remains the atmosphere of the disaster. For example, the clock is still forward 2:46 p.m., and there are remains of evacuating people, leaving laundry. Thus, the town seems to be unattracted, and it is challenging to call young people. The reason for this could be the accident of nuclear, which rendered the town devastated. However, it is evident that the former residents enjoyed the profits of the nuclear power plant. Karin-san illustrates expounded that the area which the nuclear power plant accepted had accustomed to being quite poor, and many workers had needed to go to Tokyo during the winter for getting extra money. Owing to the nuclear power plant, residents could obtain permanent jobs which the staff of TEPCO, and they could become wealthy. Therefore, I thought evacuees could not concentrate on blaming the government and TEPCO because their quality of life did increase due to these parties.

Two questions arose from Mr. Tao's and Mr. Sasaki's argument that whether human could not be anthropocentrism but biocentrism. He argues that the nuclear power accident relates to anthropocentrism

that people think about themselves, only homo sapience. However, he said we are originally part of the land, and environment, and we should be aware of the fact. That is, people are arrogant to the environment, and exaggerates their ability. I agree that anthropocentrism view brought the environmental destruction, and people need to consider biocentrism. However, I wonder that whether human could be biocentric, thinking out of anthropocentrism. I've taken one religious lecture in autumn semester, and one student argued that human could not think such a biocentric way as long as we are humans. I was not really sure about the idea, but at this moment I could understand what the student wanted to claim. I think that human could only see the world in the stance of human, who are the top of the ecosystem. Certainly, human could imagine the stance of other living organism, but it is from human's standpoint of view, and it is quite difficult to be biocentrism. However, I suppose that every ethical point of views such as anthropocentrism and biocentrism have limitation due to human capability, and I could not decide which stance is appropriate. The relationship between human and environment is my one of the big interests in ICU academic life. I will continue to examine further the human's attitudes towards environment.

Another question about the connection between political power and huge power companies in Japan. This came from Mr. Sasaki's utterance that Japan appears monopoly of power companies, and 9 companies accounted for significant share of power demand. The main point of Mr. Sasaki's argument is that every company has nuclear power plant, they are not willingly to adopt renewable energy. When I heard of this story, I was really surprised the fact that the companies do not accept green energy. After returning to Tokyo, when is the beginning of December, there is a news that Japanese Fair Trade Commission commanded Chugoku, Chubu, and Kyusyu power companies to pay surcharge because they hinder fair competition, and collaborated with each other. This occurrence relates to Mr. Sasaki's utterance that there is a monopoly in respect of power. It needs a process to examine the relationship between the power companies and politics. However, it is evident that these companies have power in the determination of power prices. Nevertheless, I need to identify the political connection of power companies, and I assume there is some extent of misunderstanding of Mr. Sasaki's utterance of politics. Because he is the side of Fukushima resident, he may have personal emotions toward the Japanese government, and it is not really clear the political connection. In the same manner, the evacuee of Okuma town stated about the political power. He argued that Japan is under the control of the US, and this fact relates to nuclear power. Karin-san did not translate into English about this since she may think this comment needs examination. I and my friend of Japanese could not believe the comment and there should be a distortion of understanding. Having said that I currently have a concern that there is a tendency that Fukushima-affected area citizens may be quite easily connected by the accident to politics. If this is true, it is quite a problematic thought, and the government needs an extra explanation of Fukushima's outlook in order to prevent confusion. Fukushima residents think that the government policy such as transmitting contaminated soil into other prefectures is unrealistic, and they did not trust them. The government has some extent of responsibility for Fukushima residents and I expect this would lead to the situation being better.

I have introduced 3 difficulties of Fukushima's recovery and two questions that I gained from the trip. Overall, there is a common point that I need a further examination of today's Fukushima by doing primary research and gathering reliable information. I think I could continue to be aware of this issue, visiting Fukushima henceforth.

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FUKUSHIMA: A JOURNEY OF PERSPECTIVES
BY ELIZABETH GAMARRA

In the words of Samuel Johnson, "the use of traveling is to regulate imagination by reality, and instead of thinking how things may be, to see them as they really are." In Japanese, Kanko = to see (kan) the light (ko), which is what this trip represented for me. This year's study trip titled, "Peace and Future of Nuclear Power: Fukushima Perspective" provided me the opportunity of visiting the towns in the Fukushima former nuclear exclusion zone as well as meet residents, reconstruction workers, activists, and artists. I was interested in this study trip because I saw it as an opportunity to learn about Fukushima on a more personal level. Secondly, I wanted to bridge my previous knowledge of nuclear energy issues to 1:1 conversations with evacuees who had returned to Fukushima and were active in the revitalization process. Finally, I wanted to build a community with my fellow peers interested in this field in a multidisciplinary space. I was able to meet these objectives and learn more than I had anticipated.

In 2021, I joined the OECD Nuclear Energy Agency to work on several projects. I participated in meetings aimed at the development of the NEA's nuclear safety project related to the Fukushima Daiichi Nuclear Power Station Action Information Collection and Evaluation. I also worked with key stakeholders, and leaders in this field who helped draft and publish the report titled, "Fukushima Daiichi Nuclear Power Plant Accident, Ten Years On: Progress, Lessons, and Challenges." Thus, the NEA is committed to assisting Japan in recovering from the accident for a better future and more generally enhancing the safe use of nuclear energy worldwide. Therefore, I was able to learn about the responses from the international community since the accident. However, being able to be in Fukushima physically has widened my understanding of how storytelling, discourse, awareness, and revitalization efforts are central supplemental pieces for cultivating a culture of safety. Thus, this trip has crystallized my understanding of the accident in terms of how the people, communities, and the local government have moved forward. Hence, this reflection journal will discuss the main key takeaways from this trip based on observations and conversations with those on the ground.

On the second day of the tour, we arrived at a ryokan that was run by Mrs. Tomoko, a local former evacuee that had returned to Fukushima to continue her family hostel business. She was very kind and welcomed us with open arms. We were able to talk with her, about her journey, during the meal that she prepared with her team for our cohort. She spoke about relocating to Tokyo and then deciding to return to Fukushima to be close to her parents, family business, and community. Mrs. Tomoko also spoke to us about her personal connection to Ukraine. She pointed at the walls of the hostel. On these walls, were multiple images and group photos from all over the world who visited Fukushima. However, some of the photographs were located outside Japan because, after the 1986 disaster at the Chornobyl nuclear power plant in Ukraine, she traveled with "a group of friends and colleagues to learn from lessons learned in Ukraine." I found this initiative on her very inspiring and a true example of learning from others at a local level.

In our conversations, she was also able to share her support for a new Fukushima Watch Company. The watch manufacturer is based in Odaka Ward. She supports this company because the Odaka Ward became a difficult-to-commute zone due to the nuclear power plant accident caused by the Great East Japan Earthquake in 2011. Moreover, a Ukrainian citizen who experienced the Chornobyl nuclear accident has continued to interact with the residents of Odaka. Therefore, a percentage of the profit from the clock produced will go towards Ukrainian charities. I was very touched by this story and her efforts to promote the Fukushima-Ukraine connection, permitting me to learn about the different ways to be an active participant in social issues, memory, and awareness - all in one.

"I WANTED TO BUILD A COMMUNITY WITH MY FELLOW PEERS INTERESTED IN THIS FIELD IN A MULTIDISCIPLINARY SPACE. I WAS ABLE TO MEET THESE OBJECTIVES AND LEARN MORE THAN I HAD ANTICIPATED."

On the first day of the trip, I asked Mr. Sasaki, who was one of our tour guides and founders of the tour company, about his thoughts on the current discourse of Fukushima. Even though I was experiencing this type of visit for the very first time, he had grown up in Fukushima and established a business devoted to sharing light on the prefecture and its history. For me, the discourse was an optimistic and pessimistic one. On one hand, the University of Fukushima emphasized hope through all its revitalization efforts. However, on the other hand, locals emphasized the importance of not over-romanticizing these efforts and forgetting about the actual history of the region. Mr. Sasaki responded by saying that for him, it was important to provide a realistic view of the current situation and where it is headed. Thus, calling his company “Real Fukushima.” His comments helped me stop analyzing what emotion was "right" and reflect more on how events have been interpreted because, for me, the reaction or emotion to the current revitalization efforts falls in a spectrum; it is really up to the evacuee to define in his or her terms.

His comments also made me reflect on one of the conversations we had with a resident who had come back to Fukushima with his wife. He was farming lettuce when we approached him, but he kindly took some time off to talk to us about his experiences growing up and working in Fukushima. He stressed the importance of setting up a realistic narrative on the future of Fukushima. For instance, for him, the younger generation would not come back considering the lack of jobs and opportunities in the region. He said, “this region does not have many employment opportunities, so if you hear optimistic discussions about youth returning to this prefecture, please remember the reality as well.” His message made me reflect on the power of words and the role they play in shaping our narrative and memory of events. The details that he was able to share with us during his message, such as the thoughts that crossed his mind when he was told to immediately evacuate, further provided context to his point of view. Our tour guides also shed light on the issue of vulnerable groups. They said, "Imagine being told to evacuate immediately thinking that you will be back in your house the next week and not being able to return until much later as international students?" This question left me pondering about the difficulties and struggles I would face if any emergency evacuation took place in Japanese, and not in English - permitting me to directly feel the urgency and importance of cultivating a safety culture.

“...BEING ABLE TO BE IN FUKUSHIMA PHYSICALLY HAS WIDENED MY UNDERSTANDING OF HOW STORYTELLING, DISCOURSE, AWARENESS, AND REVITALIZATION EFFORTS ARE CENTRAL SUPPLEMENTAL PIECES FOR CULTIVATING A CULTURE OF SAFETY. THUS, THIS TRIP HAS CRYSTALLIZED MY UNDERSTANDING OF THE ACCIDENT IN TERMS OF HOW THE PEOPLE, COMMUNITIES, AND THE LOCAL GOVERNMENT HAVE MOVED FORWARD.”

On the first day of the trip, we had a short lecture by Professor McMichael at Fukushima University. He spoke about his love for the region and his involvement with many different revitalization efforts. In his presentation, he made the connection between Okinawa and Fukushima, which caught my attention. He shared with us that sometimes, both prefectures have been regarded as "national sacrifice zones." He shared that currently, there are approximately, 31 U.S. military installations on Okinawa, which accounts for 70 percent of all U.S. military bases in Japan. In a similar way, Fukushima was chosen as the site for the nuclear power plant during the time that Japan was modernizing. This insight permitted me to start examining these issues from a prefecture-prefecture level. It also provided me with a new understanding of inequality across different prefectures and regions of Japan. Moreover, though the Okinawa - Fukushima connection became greatly prevalent in my mind, it also made me think about the larger implications of where and what "home" really is and represents. Thus, I quickly learned that many people who consider Fukushima their home, have developed different kinds of roots and connections to the prefecture. Though it has become a place with a lower population rate, it is still home to many people. The NEA has tried to use these roots to also help establish unique opportunities for those interested in entering the nuclear community.

For instance, earlier last year, they launched a hybrid workshop for young girls in Japan to participate. It was aimed at connecting them with current nuclear female scientists who could act as mentors in their life. This type of space also promoted young girls in Japan to consider entering the nuclear field.

Finally, a prevalent theme throughout the whole study tour trip was the ability or inability of building trust. On our last day, we visited the TEPCO facility and learned about their Decommissioning Plan for the Fukushima Daiichi Nuclear Power. We watched a video that broke down the accident and the timeline of events in great detail. They were able to clarify misconceptions about the event by stressing important details such as it being hydrogen instead of fuel or the prior safety procedures that they had ignored. In the video, they also apologized and recognized, multiple times, that they had been overconfident about their safety procedures echoing their efforts toward their decommissioning plan. They stated, "the reorganization and recovery of TEPCO cannot be accomplished without the revitalization of Fukushima." Thus, providing active efforts in the area of future employment opportunities, compensation for nuclear damages, and working closely with different stakeholders to continue research in this area. One of these research developments included building a robot. In collaboration with Toshiba and IRID, they have developed a robot aimed at investigating the conditions of the melted-down fuel. I found these sorts of initiatives very creative and essential for the revitalization of the area and for building trust at some level. The NEA has also been working actively on understanding trust in the nuclear context. According to the NEA efforts on enhancing public trust and risk communication, the Nuclear Regulatory Organizations (NROs) were framed as central pieces for communication abilities during a crisis. As a group, they have worked on the communication of nuclear regulatory organizations by establishing a long-term forum for nuclear regulatory "organization communicators and outreach officers to exchange information, experiences, and best practices." They recently met this year to discuss the progress on public trust and they plan to write a comparison piece to the 2014 report on the characteristics of an effective nuclear regulator. I was able to participate back in 2021 in this development of such characteristics. Therefore, throughout this trip, I saw a lot of potential in dialogue on how these characteristics are defined, shown, and explained to member states.

In conclusion, this tip was instrumental to my learning and growth as a professional, student, and activist. I went on this trip with three established objectives – to learn about the accident at a personal 1:1 level by hearing about the experiences of locals, building on my previous knowledge, and learning about the different projects on the ground.

However, I came out of this trip with so many new perspectives, reflections, and connections that surpassed my expectations. I will cherish these lessons and apply them to my life consistently. The themes outlined in this reflection attempt to categorize some of the key reflections that I came across, which include cross-learning, prefecture overlaps, storytelling, and trust building; yet there were many more reflections that I am still in the process of processing and pondering. Moreover, the quality of my cohort also formed an instrumental part of my learning. There were students from different backgrounds – religion, history, sustainability, peace, international relations, and zoology - that I was honored to meet. All the disciplines brought about questions and unique points on risk management, discussions related to the radiation in animals and plants as well as historical points in time that we can reflect on as we move forward from Fukushima. The Director of the center also brought a wonderful unique energy to the group, permitting all of us to quickly bond and cultivate a true community of learning that will continue onto next year. In Chinese, the word 'crisis' is composed of two main characters. One of them represents 'danger' while the other' opportunity.' Hence, I will take all the lessons from this experience and apply them throughout my career while creating spaces for consisting of reflection.

"I WENT ON THIS TRIP WITH THREE ESTABLISHED OBJECTIVES – TO LEARN ABOUT THE ACCIDENT AT A PERSONAL 1:1 LEVEL BY HEARING ABOUT THE EXPERIENCES OF LOCALS, BUILDING ON MY PREVIOUS KNOWLEDGE, AND LEARNING ABOUT THE DIFFERENT PROJECTS ON THE GROUND. HOWEVER, I CAME OUT OF THIS TRIP WITH SO MANY NEW PERSPECTIVES, REFLECTIONS, AND CONNECTIONS THAT SURPASSED MY EXPECTATIONS."

DISPLACEMENTS: REFLECTIONS FROM THREE DAYS IN FUKUSHIMA

BY CARLOS MARIO NAVARRETE DUQUE

Movement is an integral part of human life, and displacement, at times, can be the only way to stay or feel alive. Some people move to new places willingly, seeking new opportunities and experiences, like myself, who recently came to Japan to further my professional growth and learn from its rich culture. Others are forced to move due to natural disasters, war, and conflicts, like the 9 million internally displaced and the 1 million exiled due to decades of armed conflict in my home country, Colombia. Fukushima, on the northeastern coast of Japan, is a place known for its scenic beauty and cultural heritage. However, recently, it has become synonymous with disaster and tragedy. On March 11th, 2011, a 9.0 magnitude earthquake, the strongest ever recorded in Japan, struck the coast, followed by a massive tsunami that devastated the cities and lands. To make the situation even more critical, the tsunami hit the Fukushima Daiichi Nuclear Power Plant, leading to a partial meltdown of three reactors, releasing radioactive material, and making thousands of people evacuate. In a matter of days, the lives of the people of Fukushima changed drastically. They not only lost loved ones, friends, and neighbors who died during the earthquake or were washed away by the tsunami; they also found themselves living in uncertainty, first in evacuation camps and later in refugee camps and other places in Japan. Initially supposed to last a few days, this displacement turned into an 11 years journey that is not over yet.

Eleven Years Later: Radioactive Stigma and Emptiness

In November 2022, I was part of a group from the International Christian University (ICU) in Tokyo that visited Fukushima for three days. Our group consisted of students from diverse backgrounds, academic interests, and geographical origins. Accompanied by the Peace Research Institute staff and two guides from Real Fukushima, we visited Namie, Futaba, Okuma, Odaka, and Iitate. Beyond the 2011 scenes on TV screens, I had little previous knowledge of Fukushima. The first thing that struck me as I arrived in Fukushima was the level of devastation that I saw all around me. The tsunami had destroyed the cities, and the area around the nuclear power plant was still a restricted zone. The visit to Fukushima was an eye-opening experience for all of us. Despite the fact that 11 years have passed, the aftermath was still palpable. Our guides showed us around the cities, once bustling towns but now empty, with buildings leaning and creaking in the wind. It was a haunting sight, but it also brought the reality of the impact of the disaster. On the first day of our visit to Futaba, our guides mentioned that, even though the town was almost abandoned, we could go out and walk in the darkness to "feel the emptiness." And we did. Japan is quiet compared to Colombia, with little noise on the streets. However, Futaba was even quieter, with palpable silence. Behind this silence were objects frozen in time, as if life had stopped, reminding us of the absence and the power of nature reclaiming the land. The emptiness and silence pose a question mark, asking us what the future holds for the town and its people.

The emptiness of Futaba was not just about the absence of people but also about the loss of hope. For many years, the residents had no idea what the future held for them and their town, and many felt their lives were on hold. They left behind their possessions, their homes, and their memories. The uncertainty of their future and the radioactive stigma associated with their past made it difficult for them to move forward while at the same time producing far-reaching economic, social, and psychological consequences. As we walked through the empty streets of Futaba, I couldn't help but feel a sense of sadness and empathy for the residents. The emptiness was a physical manifestation of the ongoing struggles of the residents. But despite their challenges, the few people who have returned were determined to rebuild their lives and town. I left Futaba inspired by their resilience, and with a newfound appreciation for the strength of the human spirit.

"THE VISIT TO FUKUSHIMA WAS AN EYE-OPENING EXPERIENCE FOR ALL OF US. DESPITE THE FACT THAT 11 YEARS HAVE PASSED, THE AFTERMATH WAS STILL PALPABLE."

The Abandoned Car: The Meaning of Absence

The abandoned objects, left behind, seemed alive with their absence; the destruction frozen in time. An abandoned car, sitting still by the side of a deserted street, symbolized the forced evacuation and the lives disrupted by the disaster. The empty houses and buildings, the overgrown gardens, and the broken windows all spoke of the same thing- the absence of life. As we walked the streets, I couldn't help but think of the people who had lived there. Where were they now? What did they do after they were forced to abandon their homes? These questions lingered in my mind, and it felt like I was searching for something that was no longer there, an absence that had taken over the town. The ghost town of Futaba was a reminder of the power of nature, the impact it can have on people's lives, and the search for absence was a reminder of the stories that have been lost and the memories that have been forgotten.

The Reality of Decommissioning and Recovering

Our guides told us about the decommissioning processes at the Fukushima Daiichi Nuclear Power Plant, a few kilometers away. It was a surreal experience to be so close to the place where one of the worst nuclear disasters in history had occurred. We also visited a museum that aimed to inform and educate the public about the disaster and its aftermath. This museum offered us a glimpse into the reality of what happened after the tsunami and the nuclear meltdown, but it also showed the efforts being made to clean up the environment and promote economic reactivation in the area. The scale of the disaster was evident from the stories we heard about the still undergoing decontamination process. Our guides explained the accident's details and the efforts to restore the area to make it again a safe and habitable place. Despite the ongoing decommissioning, cleanup, and recovery processes, the damage's full extent seems challenging to repair soon fully. According to our guides, it would actually take 30 years to complete the decommissioning process and restore the area to a level of safety that would allow economic reactivation.

"THE GHOST TOWN OF FUTABA WAS A REMINDER OF THE POWER OF NATURE, THE IMPACT IT CAN HAVE ON PEOPLE'S LIVES, AND THE SEARCH FOR ABSENCE WAS A REMINDER OF THE STORIES THAT HAVE BEEN LOST AND THE MEMORIES THAT HAVE BEEN FORGOTTEN."

"A Light That You Can See After Knowing its Shadow"

The feeling of gratefulness for our visit could be felt by the residents who had returned to their homes, despite the uncertainty that still surrounded the area. They had lived through the earthquake, the tsunami, and the radioactivity, but they had chosen to return to the place they once called home. In the evenings, we had a chance to talk to some of the residents and hear their stories. They spoke of their rebuilding struggles and how the disaster affected their communities. Some had lost their homes and livelihoods and were forced to evacuate, while others had returned to the area and worked to revitalize their communities. Their resilience was admirable, and their strength to rebuild their lives in the face of adversity was inspiring. The journey back to their homes was not easy, and the decision to return was not simple. The fractures created by the earthquake, the instability caused by the tsunami, and the fear of the unknown combined to create a situation that was not ideal. The visit to Fukushima had a profound impact on me, and it taught me that even in the darkest of shadows, there is always a light to be seen. The residents showed me that rebuilding and finding a new way forward is possible, even when faced with insurmountable obstacles. They were facing challenges, such as the stigma associated with the radioactive contamination, the uncertainty about their health and the future, and the difficulties of restarting the local economy, but they were also finding moments of hope, gratitude, and community. One of the things that struck me the most about our visit to Fukushima was the contrast between the sense of emptiness and abandonment that surrounded us in the abandoned towns and the warmth and hospitality of the people we met.

Finding Home and the Future to Come

Our visit to Fukushima was a reminder of the human capacity for resilience in the face of adversity. The return of some people to their hometowns highlights the importance of belonging and attachment to one's home. However, this also raises questions about our human nature and desire to find new places to call home, even outside Planet Earth.

In many ways, our visit to Fukushima reflected in me the larger issue of displacement and recovery from natural disasters, violent conflicts, and political crises. It reminded me of the ongoing displacement crisis that Colombia has been living in for decades; the millions of Venezuelans that have left their home; and some other crisis examples that I have come to know better with my classmates here in Japan who have been closer to the situations of Syrians and Rohyngas. Despite the differences in context, scale, and direct causes, there are many similarities. All those crises involve the displacement of communities, the loss of homes and livelihoods, and the struggle to rebuild in the aftermath of disaster and violence. They also raise the question of why humanity, directly or indirectly, is promoting all these forced movements and pain.

As we left Fukushima, I was grateful for the opportunity to learn about the people's experiences in the region. I was also left with a sense of responsibility to share what I had learned with others and to contribute to creating a better future for all people, regardless of where they come from or what they have suffered. The disaster may have left a lasting impact on Fukushima, but it has also demonstrated the strength and resilience of the human spirit. Despite the challenges, there was a sense of hope and resilience among the people of Fukushima, which made it a humbling and inspiring experience. It also served as a reminder that we all are responsible for working towards a safer and more sustainable future for our planet. The story of Fukushima is one of loss but also one of hope and determination, a reminder that the future is always uncertain, but with determination and effort, we can shape it to be a better place for ourselves and generations to come. The lessons learned from the disaster and its aftermath can serve as a valuable tool for communities facing similar challenges in the future, both in Japan and around the world. The situation in Fukushima highlights the importance of listening to the voices of those affected by such disasters and considering their perspectives in decision-making processes and the necessary actions to come. Only if we learn from the past will we be able to find new common grounds and different imagined and tangible futures.

POEMS

Life in sieverts

You fear it
But you cannot see it,
You sense it
But its existence is impossible to hear,
You may sometimes forget about it
But it is invisibly whispering.

Manpower

More, more, more.
Produce.
More, more, more.
Consume.
Be happy with excess and unlimited control.
Will you keep on going forward with unsatiable violence?
Asked the Moon before reflecting its light on Earth for one last time.

RETHINKING SAFETY IN THE CONTEXT OF FUKUSHIMA
BY NAOKI HAGA

As a member of a field trip organized by PRI, I visited Fukushima Prefecture, which was devastated by the Great East Japan Earthquake. In this report, I will describe my impressions of the trip in three main parts. First, I will tell of my shock at the damage caused by the earthquake and Tsunami in Fukushima, the problems that still remain, and finally, the distrust towards the electric power company and government authorities that I felt most strongly during this trip.

Shock – What happened to Fukushima?

On this trip, I was shocked by Fukushima's current situation, where damage remains 11 years after the Great East Japan Earthquake. On the way to the first destination, Ukedo elementary school, I saw many empty houses, cars not in use, and farmlands without any crops. I could feel the vestiges of the people who used to live there. At the same time, I felt a great sense of loneliness in the way the traces of life remained. It was as if humans were abruptly erased from their everyday lives. Although some farmland had been plowed in places - some farmers, I was told, returned from time to time to cultivate the land so that it would not fall into disrepair - some fields seemed to have been untouched for a long time. I had assumed that farmers were supposed to utilize as much land as possible to maximize the harvest from my experience in my hometown, Obihiro in Hokkaido, which is thriving with agriculture. I could not help but think of why agriculture was not flourishing despite the affluence of the lands. Gradually, I saw the impact of the earthquake.

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The first main destination of this trip, Ukedo elementary school, was an even more appalling site. At this school, all the students survived the tsunami because of their quick action. The Tsunami demolished and washed away almost everything; all that was left there was rubble. A mirror in the hallway left a lasting impression on me. On one mirror were many smiley faces, probably drawn by students, and on the other was the date and time of a baseball game written by someone. The elementary school children would have been there right up until the earthquake, laughing and looking forward to the upcoming baseball game. the Tsunami washed away not only the facilities but their peaceful memories.

On the second day of the trip, Our first stop was the center of Futaba Town, where the evacuation order was recently lifted. The area is now open to visitors, but few have returned, and much of the life that existed at the time of the disaster has been preserved. Laundry left lying on the floor, twisted garages, and dusty stores in the shopping district. On the other hand, on the walls of some buildings were paintings that both preserve memories and encourage the future. We also went to Kumamachi elementary school, which the Tsunami did not hit. Because the Tsunami did not reach the school, it sustained only earthquake damage. Desks were in disarray, pencil boxes were open, and posters were on the floor, conveying the intensity and tragedy of the disaster. The children in that classroom at the time of the earthquake were the same age as me, who was in second grade then. On the notice board was a picture of students gathered in the schoolyard, and the words "ひなんくんれん Hinan Kunren," which means an evacuation drill, were innocently written. I would like to believe that this drill enabled the children to evacuate from the school as quickly as possible.

Current problems

The Great East Japan Earthquake still retains a great deal of its damage in Fukushima; for example, the population has decreased. I saw an agricultural area that I passed through during my field trip and saw many fields that were not being cultivated. I am from a rural area in Hokkaido, Japan, and because the place was very prosperous in terms of agriculture, I assumed that the more fields there were, the better and, therefore, wealthier people were. The more land there was, the more crops could be harvested, and the more livestock could be raised. However, this was not the case in the affected areas; even if there was land, there was no one to manage it, and the number of farmers was dwindling.

To make matters worse, this population is also aging. Many who returned to the disaster-affected area after the earthquake were elderly; there were too few jobs for young people. This area was similarly suffering from a declining population and lack of employment before the nuclear power plant was built. Still, it also benefited from government subsidies and people getting jobs at the nuclear power plant. As symbolized by the "原子力 明るい未来エネルギー Nuclear Power Bright Future Energy" sign in Futaba Town, atomic power was hope for people in the area. However, the earthquake changed everything. The town was contaminated by radiation, there were no jobs, and the population had shrunk. Many of the former residents had already settled in other cities. Therefore, although some older people with strong attachments to the community returned, the younger generation was not numerous. Unfortunately, those who have found new jobs and families in other towns do not have much motivation to return to their aging communities.

Fukushima is suffering greatly from population decline and aging due to the disaster, but I couldn't help but wonder if this problem is unique to this region. Could this vicious cycle of declining population, the exodus of the younger generation, and depopulation be seen in other areas of Japan as well? Of course, we should not underestimate the impact of the Great East Japan Earthquake. Nor do I mean to suggest that support for the affected areas should be reduced. However, it seems to me that the problems Fukushima is facing are similar to those faced by many regional cities and rural areas, except for the direct damage caused by the earthquake and Tsunami. In other words, it could be said that the Great East Japan Earthquake underscored and accelerated the problems that already existed. If this is the case, then the current situation in Fukushima is by no means a problem concerning only this region. There are many lessons to be learned from this situation, and we must first address the issues that are occurring in this region. I realized the importance of thinking about the disaster as our own problem anew.

Distrust and Information

Before I went to Fukushima, the biggest problem I felt was damage caused by harmful reputations. I had often heard on the news that the nuclear accident had damaged the market for vegetables, livestock, and marine products produced in Fukushima Prefecture. I felt this, particularly about the release of tritium into the ocean. It is said that discharging diluted tritium into the sea has no significant impact on the human body, and other countries have done so as well. Nevertheless, one of the biggest objections in Japan, especially in Fukushima, comes from the fear of reputational damage. Kanji Tachiya, head of the Soma Futaba Fisheries Cooperative, said, "Now that people are saying that fish from Fukushima Prefecture is safe and tasty, what will happen to Fukushima's fishing industry if the water is released into the ocean? Everything we have done so far will collapse. Even if it is said to be a national policy, it is absolutely unacceptable[1]." However, if this is "reputational damage," there should be no scientific basis for opposition. The government insists on its legitimacy based on scientific evidence and the fact that many other countries are discharging tritium. If this is true, although reputation is certainly critical for producers, I was not entirely convinced by the opposition, which seemed to me unessential. It was with these thoughts in mind that I departed for Fukushima.

To get straight to the point, I have not changed my mind. I have heard various opinions and pondered about the ocean discharge during the field trip, but for me, the current situation where harmful rumors are the basis for the opposition is a bit deplorable. However, this is not to say that the opposition is simply at fault and that we should proceed with the discharge as soon as possible.

"THE DAY MAY NOT NECESSARILY COME SOON WHEN DISTRUST FADES AND PEOPLE FEEL TRULY SAFE, BUT I WOULD LIKE TO DO WHAT I CAN AS A JAPANESE WHO GAINED AN INSIGHT INTO THE CURRENT SITUATION."

As I will explain later, the root of this opposition is, first and foremost, distrust of the government and TEPCO, Tokyo Electric Power Company, Incorporated. It is, of course, necessary for the people of Fukushima to call for safety and good taste, but it is even more critical for the government and TEPCO to take responsibility for disclosing information and making such calls. However, it appears that people do not fully trust these institutions in the first place. As a result, I feel we are stuck in a vicious circle in which calls for help end in vain, and the current situation remains unchanged.

In relation to rumors, I got the impression that the idea of constantly measuring radiation levels is ingrained in the areas I visited. The local group that guided us around the site told us at every turn – of course, I think this was done out of kindness for us to feel and learn with a sense of reality – and in many places, there were machines that measured and post radiation levels. The farmers we visited also explained in detail where and how much radiation levels were. I had never thought about radiation levels in my daily life, but they seemed to be possessed by the idea that they had to measure them. I couldn't help but wonder when they would be freed from the need to measure.

As I have already mentioned briefly, the basis of these local people's thoughts seems to be distrust of the government and TEPCO. I came to this conclusion at a high frequency during our field trip. Mr. Tao, the head of the Resurrection of Fukushima, who is working with volunteers and experts together with villagers to revitalize life and industry, scientifically measuring the radiation levels, told me that they have to do so because citizens do not trust the government. Also, on the first day, we met an elderly farmer who had worked at the nuclear power plant before the disaster on the way to our destination. After the disaster, he left home with his children and returned to Fukushima when he could. However, his children did not return; they had already found jobs and families outside the prefecture. There is one thing I will never forget during the interview: the farmer asserted over and over again, "Don't be deceived by the rhetoric of the government. They only say beautiful things. It's not always that good."

People we met were unanimous in saying that the government lacked sincerity and thus could not be fully trusted. Represented by a sign that says "Nuclear Power Bright Future Energy," citizens were not provided with enough information before the disaster, and some may think they still are not fully informed. Mr. McMichael, a Fukushima University professor, gave us a lecture about revitalization. He appealed for the revitalization of Fukushima people's hearts and minds, but not reconstruction or recovery. What I found essential was the idea of SAFETY. The measures taken by the government and TEPCO to prevent contaminated water, radiation levels, and accident recurrence may indeed be safe; however, "being safe" and "feeling safe" are two different things. What should be done to make citizens feel safe? This is what I believe: the government should show good faith by disclosing information as much as possible. What is more, the media should also report what is happening and the information necessary to make decisions. The day may not necessarily come soon when distrust fades and people feel truly safe, but I would like to do what I can as a Japanese who gained an insight into the current situation. At last, I would like to introduce a phrase that I found in the Great Earthquake and Nuclear Disaster Museum. It was written with the beautiful scenery of Fukushima: “Come.”

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LONG-LASTING IMPACT OF THE DISASTER
BY KATIE BOLTON

Having arrived in Japan four months ago, I am continually presented with the sheer number of new experiences packed into such a relatively small island nation. Japan, despite being geographically similar to my home country of England, and both sharing a deep and complicated history, is worlds apart from the UK. My time has given me the opportunity to meet a diverse range of Japanese citizens and multicultural people. Yet before going on this trip to the Fukushima prefecture I had yet to connect with Japanese individuals that had been impacted by a global disaster, the 2011 Tohoku tsunami and Fukushima Daiichi Nuclear Power Plant meltdown. My own thoughts and personal reflections upon the trip are here contrasted with the opinions of different individuals that were directly or indirectly impacted by the disaster. I also believe that, apart from the people of Fukushima, the greatest storyteller of events that occurred is the landscape of the affected areas itself.

Before embarking on the field trip, my knowledge of the Fukushima incident was mixed. I had two perceptions of the event: one of the average foreign spectator whose ideas and knowledge are based on what the media reported at the time; the other as a student in my current undergraduate study of zoology. My research influenced how I saw the local flora and fauna, and my understanding of how nuclear contamination had impacted the local ecosystems. These two contrasting perceptions impacted my foregoing impressions of what experiences the field trip would present me with. Upon writing this reflection though, I have come to realise that although I was aware that Fukushima was a prefecture, the size of the region (13,780km2) is four times that of my own home county of Cambridgeshire. In addition, roughly 30,000km2 of Japan's land surface was thought to be contaminated by radioactive caesium. My mental image of the size of the area impacted greatly contrasted with its sheer size in reality.

Meeting with the group embarking on the trip, the diversity of people from different cultural backgrounds and degree majors helped widen my perception of Fukushima. A handful of individuals were Rotary Peace Fellows studying postgraduate Peace Studies and thus had come to Fukushima to study how such an incident can cause huge disruption and stress not just within local society but also international society.

"I... BELIEVE THAT, APART FROM THE PEOPLE OF FUKUSHIMA, THE GREATEST STORYTELLER OF EVENTS THAT OCCURRED IS THE LANDSCAPE OF THE AFFECTED AREAS ITSELF."

Many believe that the area around the nuclear accident was completely abandoned, which is to some degree true. However, I had the incredible opportunity to meet a few individuals that had established revitalisation projects in order to return Fukushima to its prime, as much had been destroyed or had decayed over time since the evacuation. Because the Japanese government has attempted to clean the contaminated areas, certain areas that I stayed in had been reopened for residents to move back to only relatively recently. For example, Futaba, one of the closest towns to the Daiichi Nuclear Power Plant only reopened for residents to return to as of February 2022. Many parts of the town have been rebuilt, with a reopened train station, hotels and a new Great East Japan Earthquake and Nuclear Disaster Memorial. Unfortunately, this did not change the fact that much of the town had been abandoned and is still in ruin despite the opportunity for residents to move back into the area. Driving through Futaba, almost all the older buildings are abandoned and have greatly decayed since the whole population was evacuated. Despite the nuclear disaster having occurred just over 10 years ago, abandoned areas of the town gave the impression that the area had been abandoned for much longer than 10 years. Walking through the town at night, the silence and blackness of the area contradicted the usual perception of Japanese urban areas being bright and bustling. It was hard to believe that the town was like that just 11 years ago.

We had the chance to meet Professor William McMichael, a Canadian deputy director at the Fukushima University International Centre, who has resided in Fukushima since 2007. He shared his experience of the Tohoku earthquake and tsunami as well as the subsequent nuclear meltdown. As a long-term Japanese-Canadian foreign resident within Fukushima, his perception and experience were unique and insightful. I could relate to it, as he had been a candidate in the Japanese Exchange and Teacher (JET) Programme and had then settled in Fukushima afterwards. He spoke of how there had been widespread misinformation on the tragedy, a term he labelled an "information disaster". McMichael introduced us to the key information on how the accident occurred and painted a clear picture of its irreversible effects; over 163,000 individuals had to be evacuated and today only 65% of them intend to return. This highlighted to me that one of the biggest issues associated with the disaster is how long-term it is; the damage created by the tsunami was relatively short-term, and thanks to huge cleanup and reconstruction efforts, physical signs of its damage are now rare. However, for such a relatively brief disaster, the tsunami created long-term suffering for the former residents, many of whom have moved on since then, and whose families will never return.

The impact of the tsunami has frozen many of the buildings we visited in a state of pure tension and grief. We visited a former fish hatchery located on the coastline, close to the Dai-ichi Nuclear Plant, a small complex of industrial buildings dedicated to the fishing industry. This was one of the first terrestrial areas to have been hit by the tsunami, meaning that the full potential energy of the wave was released upon impact. All that remained of the fish hatchery itself was the frame of the building and its hatching pits. The huge, arching cross-section of the building was the only part strong enough to withstand the sheer force of the tsunami. The smaller surroundings buildings initially seemed less effected, until I could see the bent metal pipes and gaping holes that had been ripped through reinforced concrete walls by the tsunami. The area was completely silent, except for the continuous sound of waves by the coastline.

In contrast, visiting Ukedo Elementary School not only showed the strength of the tsunami but told of a sequence of events that had occurred in the same place 10 years ago. The two-storey building was relatively

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small for an elementary school, only emphasising the fragility of the building despite its size. The bottom floor of the building was reminiscent of the fish hatchery, with only the floors and frame of the building remaining. All the walls facing towards the ocean were stripped away by the tsunami. The second floor was more well-preserved, having been left untouched by the tsunami. I had not comprehended the height of the tsunami wave that ended multiple lives, until I climbed the stairs to the second floor. A white sign on the outside of the school marked the height the wave reached when it hit the building, at roughly 5 metres of elevation. Five metres to me before the visit had seemed relatively small in my mind, but this cemented in my head the tsunami's true height. To think that in some areas the 2011 tsunami reached up to 40 metres was, and is still now, hard to comprehend. Despite the melancholy surroundings, the lives of 80 children were saved here, thankfully due to the quick, proactive thinking of the elementary school teachers. I could see for myself the story behind this miracle, as all the clocks on the school were frozen at 3:40 PM, when the tsunami hit. The Tohoku earthquake occurred at 2:46 PM, on 11 March 2011, and so the school staff had only 50 minutes to decide whether to follow emergency protocol and stay within the building or ignore this and evacuate the children.

The tsunami and earthquake alone created irreversible effects on the local communities of Fukushima for the next decade. Yet the nuclear disaster on March 11, 2011, immediately accentuated all these issues and thrust them into the future, making the management of the nuclear decontamination and decommissioning an unwarranted and dangerous responsibility for future generations. We met a few individuals from Fukushima who each gave their opinion on the nuclear disaster and is consequences.

One local farmer explained that he had a worked for Tokyo Electric Power Company Holdings (TEPCO) for 30 years and had raised his family in the Fukushima

prefecture. He explained that most of the population surrounding the Dai-ichi Nuclear Power Plant had been attracted to the area when it was first commissioned in 1971. Many people's livelihoods were supported by the jobs provided by TEPCO and yet these livelihoods were so quickly stripped away when TEPCO's plant collapsed. The farmer warned us to be wary of TEPCO's Decommissioning Archive Centre before we visited it to hear about the incident from the company's perceptive. Other local people highlighted to us that because the power plant had originally been designed in collaboration with General Electric, its layout was not suited for the local Japanese environment. I was not aware of this, and so upon doing further research, TEPCO had indeed chose to follow General Electric's design of the reactors despite concern from local workers that locating the backup diesel generators below ground was not appropriate for a coastal power station in an earthquake-vulnerable region. As a result, when the wave hit, the reactors shut down and the backup generators were unable to prevent the reactors from overheating, resulting in hydrogen explosions in three of the four unit reactors.

We got to see how the Japanese government has attempted to redevelop the impacted area, particularly around Futaba, where a major proportion of the former population no longer resided. The train station had been reopened relatively recently in March 2020, and the town centre had been relocated to a decontaminated area of the town. These revitalisation efforts came across as well-managed and well-organised, and yet the contrast between the newly developed areas of the town and the abandoned, historical areas was a prominent and continuous reminder of the accident. Individuals who had strong ties and emotional connections with the land, I thought, would be more inclined to return; however, the historical areas of the town did not appear to be in the process of redevelopment and so remained abandoned.

Overall, the greatest conclusion I could draw from my time in Fukushima during the trip, is that all individuals exposed to the disaster, whether during it or after, will be impacted by it for years to come. The locals bear the brunt of this impact and carry this burden as a brave choice. Many other who had their livelihoods stripped away have since moved on from their hometowns. Those that have chosen to remain must work to rebuild what was lost, and clear up the consequences of industrial mismanagement. The education of outsiders such as myself is the way forward for introducing new people to how Fukushima is recovering, but also so that we can develop rational opinions about the event. I will always be extremely grateful for this opportunity of a lifetime, and will share my own perspective with individuals that may not have a chance to discover Fukushima in person.

平和研究所について

本学における平和研究の推進・強化を目的に、1991年に設立された。第二次世界大戦の惨禍に対する反省に立ち、世界平和の実現、確実な人権保障、社会正義の推進という目的意識のもとに設立された、本学の建学精神を受け継いでいる。

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ICU's PRI was founded in 1991 for the purpose of promoting and strengthening peace research at ICU. The Institute inherits the founding spirit of the University, which reflects on the scourge of WWII and seeks to realize world peace, human rights, and environmental responsibility for the future.

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