

## *Introduction*

There is a nuclear ghost [*houshanō obake*] in Minamisōma.

HATSUMI

“A CITY WITH NUCLEAR GHOSTS” was how Hatsumi, a woman in her sixties, described the state of Minamisōma city, Fukushima Prefecture. “Do you believe in ghosts?” she asked me. Noticing my dumbfounded face, she offered me a chance to respond. I could not reply right away and, to earn some time, reached my hand to a glass of cold barley tea she had served me.

It was late July 2013, during a hot, humid summer. I had just moved to Minamisōma from Massachusetts for my dissertation fieldwork. Talking to residents like Hatsumi, I wanted to understand why many people lived on the edges of nuclear evacuation zones despite the elevated risk of radiation exposure that the media, social media, and scientific reports made undeniably visible. As an outsider, I struggled to understand the polarized discourses concerning postfallout Fukushima. On the one hand, it was argued that the state and the electric company had acted inhumanely to “force” people to reside in the irradiated environment.<sup>1</sup> On the other hand, the local and national government spent so much money and so many resources to make it possible for people to “stay in” and “return to” the region. The same tension still exists at the time of this writing, in 2022, more than eleven years after the disasters.

On March 11, 2011, when the magnitude 9.0 earthquake and the tsunami hit the Tōhoku (northeastern) region of Japan, I was in Massachusetts, more than 6,500 miles away and fourteen hours behind. As I woke up that morning, I witnessed the chaotic unfolding of the combined disasters (*Fukugō Saigai*/複合災害), or what is called 3.11 (*san ten ichi ichi*), in the recorded

images of the tsunami overcoming the coasts of Tōhoku and eastern Japan. The images of destruction bombarded my senses, and I could barely follow the constantly accumulating numbers of people confirmed dead and missing. Now we know that the earthquake and tsunami killed 15,900 people in twelve prefectures, 2,523 are still missing, and the physical and material damages have cost the country over \$1.4 trillion.

The situation became even direr as the tsunami devastated what was believed to be the robust assemblage of the Tokyo Electric Power Company (TEPCO) Fukushima Dai-ichi Nuclear Power Plant (colloquially referred to as 1F [*ichi efu*]) in the coastal region of Fukushima and disabled its backup power generators. As a result, the reactors' cooling system was incapacitated, and hydrogen explosions occurred at three of the six reactors between March 12 and 15, causing the haphazard distribution of radioactive debris throughout the planet and mass evacuation in the surrounding region. "There is no immediate danger," the chief secretary of the cabinet, Yukio Edano, repeated like a broken record. Focusing on containing the fear among the citizens instead of disseminating information, the state acted on what Clarke and Chess (2008) call "elite panic."<sup>2</sup> The natural hazards, technological accident, and the subsequent elite panics later became known as "the Fukushima nuclear disaster." In this book, however, I refer to the nuclear accident as "the TEPCO accident." In calling it the *TEPCO* accident, I want to make it evident that the accident occurred at the power plant in *Fukushima* owned and operated by *Tokyo* Electric to generate electricity exclusively for the people of central Japan. As I will show, this shift in the naming convention for the English-speaking audience signals the core of my ethnographic project, which aims to decenter the radiation-centered narrative to instead explore the local, more granular conditions surrounding 3.11.

Unlike the Chernobyl disaster in 1986, which remained secret until the neighboring countries traced spiked radiation-monitoring data back to the city of Pripjat, the globally circulated live images of hydrogen explosions and the ensuing efforts to contain the crippled reactors made the TEPCO accident in Fukushima a global "media event" (Beck 1987).<sup>3</sup> In a day, Fukushima became known to the world as the land of contamination. At the same time, while these Fukushima nuclear spectacles brought Fukushima to global attention, they frequently erased the losses the residents experienced from the earthquake and tsunami. Fukushima Prefecture alone lost 1,614 people, including two individuals in their twenties who were surveying the earthquake damage inside reactor four at 1F, and 196 people are still nowhere to be

found.<sup>4</sup> The city of Minamisōma, where Hatsumi lived, experienced the highest death tolls in the prefecture, losing 636 people, and 111 people were still missing as of March 2022. The TEPCO accident and the subsequent evacuation order made the losses even more traumatic for those who had to give up searching for their missing friends and families.<sup>5</sup>

Even though I was terribly disturbed by what I saw from a distance, I could not keep my eyes off my computer screen, news reports, and social media.<sup>6</sup> I kept wondering if it was the end of Japan as I knew it. My sense of loss was surreal. I was not familiar with most of the places mentioned or depicted in the news. Growing up in western Japan, I knew no one in Tōhoku. My family, who lived far away and experienced only the aftershocks of the rattling earth and the incessant media spectacles, did not help me make sense of the disasters. They described 3.11 as a “big deal” and compared it to the magnitude 7.0 Hanshin-Awaji (Kobe) earthquake, which killed over 6,300 people in 1995, which we had experienced more intimately.

The overwhelming sense of uncertainty and fear of the unknown in Fukushima, however, suggested that something unusual was creeping up (Inose 2014). Sociologist Kai Erikson (1994) calls invisible threats like radiation and its lingering dread a “new species of trouble.” It unsettles our taken-for-granted idea about the boundedness of an event—a plot with a clear beginning and end—and our assumptions about the safety and security of being in the world (Parkes 1967). For my family and me, what was happening in Fukushima felt closer to the chilling sensation caused by the sudden awareness of the invisible and unknown we had confronted after the Tokyo subway sarin attack, an act of chemical and religious terrorism by Aum Shinrikyo on March 20, 1995, following the Kobe earthquake on January 17.<sup>7</sup> Although 1995 was a dark year for Japan, 3.11 posed a different kind of existential challenge, and we were all seeking some reference for it in the past.<sup>8</sup> For making sense of this “unprecedented/*soutei gai*” disaster (Bestor 2013), our historical and cultural pockets were empty.

In the summer of 2013, when Hatsumi told me about the nuclear ghost of Minamisōma, I was still haunted by my exposure to the Fukushima spectacles. As a result, I could not help but interpret the “nuclear ghost” as the ghostly presence of radiation in the city, which can only be experienced with technoscientific instruments like a Geiger counter. By interpreting Hatsumi’s nuclear ghost this way, I revealed the fundamental assumption I had brought with me to Minamisōma rather than the city’s actual state. I went there to confirm my belief that it is an unsafe place to live and residents

are in denial, just like the media and academic depictions of Fukushima suggested.<sup>9</sup> I had imagined that my research would explore the unarticulated danger, people's profound fear of imperceptible radiation, corporate and state secrecy about the scale and extent of contamination, and visible health defects among the residents, just as in the cases of Hiroshima, Nagasaki, Chernobyl, Hanford, the Four Corners, the Marshall Islands, French Polynesia, and other sites of nuclear fallout. After all, isn't a nuclear accident all about radiation exposure and its detrimental biological and environmental consequences? If the nuclear ghost is not radiation, what could it be?

Approaching Fukushima from this radiation-centered angle made individuals and their experiences less crucial; radiation impacts people equally, and if people think otherwise, it must be the result of manipulation. Following these presumptions, I failed to record any information about Hatsumi in that meeting, such as who she was, why she stayed there, what kind of life she had lived, and how she imagined her future in Minamisōma. In contrast, I duly documented the readings of my Geiger counter, which I thought indicated the world's objective state—that X amount of radiation is present in a specific locale regardless of who measures it—as if that information defined the place where Hatsumi resided and the life she lived.

I was wrong. It took me a long time, many mistakes, and many more interactions with residents like Hatsumi and others to come to learn otherwise. Believing that I was studying a disaster rather than individuals in a disaster, I initially searched for “the victim” of the TEPCO accident, those individuals who would fit in the category of “the sufferer” (*bigaisha*) and “the exposed” (*hibakusha*), yet I could not find many; in my initial twenty or so semistructured interviews, people frequently ended the conversation by referring me to someone else who they thought “suffered” more.<sup>10</sup> Some people lost their family members, while others lost their homes from the tsunami or from contamination. This referral process eventually led to individuals who often appeared in the media reports of a “disaster-affected area/*hisaichi*.” Those individuals had remarkable and elaborate stories of suffering and loss to share.<sup>11</sup> They also knew what they were expected to say to meet the distant others' gaze so that others could be spared from a similar scrutiny.

The failure of my initial approach made it apparent that the search for suffering only fulfilled outsiders' expectations and reproduced the hierarchy of suffering in the local community. This early experience in the field made me ask whether the goal of disaster ethnography is to locate and represent the experience of the people who suffered most? In the field I have often

wondered about the role an anthropologist plays in the postdisaster context. Sometimes, I was unsure if ethnography was any different from Naomi Klein's influential idea of "disaster capitalism," in which individuals, institutions, corporations, and so on benefit from a disaster and its victims, or "disaster pornography," in which the depictions of sufferings become the mode of consumption, entertainment, and the reality. Jean Baudrillard ([1981] 1994) calls such a constructed reality "hyperreality," where repeated representations come to shape the reality through the process of self-fulfilling prophecy.

Although I have found it challenging to grapple with the question of my position as an unintentional extractivist in regard to locals, and I will keep coming back to this dilemma throughout the book, one thing was undeniable: the way that public discourse figured the tsunami and TEPCO accident did not match neatly with how each resident experienced, narrated, and remembered them differently on the ground.<sup>12</sup> One tsunami survivor in Minamisōma I met in 2013 hesitantly shared that "while I feel lucky to have survived the tsunami unlike some people, sometimes I cannot be confident that I am in a better state because of the nuclear accident afterward. I never thought being lucky is bad luck."

Suffering comes in many shapes and different tempos. Minamisōma's residents all experienced the same event, the so-called 3.11, but where they happened to be situated mattered to how they came to experience, live with, and process the aftermaths (Hastrup 2011). Residents often disagreed with each other about their situated experience of 3.11, and, more importantly, their relationship to it—their memory, interpretation, and experience—changed over time.

This interpretive struggle between individual residents, the public, and the state and experts about 3.11 and the ensuing social and political fragmentation reminded me of industrial disasters like the Minamata disease caused by mercury poisoning in the 1950s. Environmental scientist and activist Ui Jun ([1971] 2006, ch. 9), who laid the foundation of environmental studies in Japan, characterizes environmental disasters as extrascientific and surreal (*cho-genjitsuteki*) experiences that manifest themselves in society through social discrimination and divisions. I believe 3.11 is a similar species of trouble full of ambiguities, absurdities, and ambivalences.

To tell this convoluted story of 3.11, throughout this book I borrow words from novelist Haruki Murakami. His writings guide me to explore the gray zone between what is considered real or surreal, and scientific or not scientific, in how people experienced, remembered, and narrated 3.11. Patching

together archives, memories, words, and narratives that illuminate diverse livelihoods despite radiation, I attempt to offer a horizon of social science of the surreal. My goal is to abduct, as Murakami (2001, 226–27) puts it in his writing about the Tokyo Gas Attack, “words coming from another direction, new words for a new narrative. Another narrative to purify this [radiation-centered] narrative.”

*The Nuclear Ghost* is an ethnographic monograph about my chance encounters with various livelihoods in radioactive landscapes of coastal Fukushima. Here, residents’ sustained efforts have helped recover and reconstruct the past tsunami damage done to physical structures and reopen former evacuation zones, while the damaged nuclear power plant continues to release contaminants each and every day. There I met many individuals who decided to stay or have returned to the region for various reasons, despite the risk of radiation exposure and sometimes in the face of others’ harsh judgment of their character for doing so.

A retelling of the lives of those who did not leave, have returned, and have moved into coastal Fukushima, my stories might appear to some to be underplaying the decision of those who left the region and the potential adverse effects of radiation exposure and thus spreading a radiation-tolerant, pro-nuclear perspective. That is not my intention. Instead, I invite readers to witness the residents who, for one reason or another, felt compelled to stay or to return despite the risks and often incompetent, inflexible, and conservative state authority (Kainuma 2012; Samuels 2013). Whether coastal Fukushima is irreversibly contaminated or not, I met and spent significant time with people who still called it their home and desired to live with their ancestors and pass their land, cultures, and histories to future generations. I wanted to understand why, by hearing their stories. And now I am passing them on to you.

#### PERIPHERY OF PERIPHERIES (SYŪ-EN NO SYŪ-EN)

A Minamisōma native, Hatsumi lived there her entire life. Like many other residents, however, she was not particularly fond of Minamisōma. “There is nothing here,” she would say, “so I watch the travel channel and plan for my next trip abroad!” She often traveled outside the country to see places and experience things that she felt the rural city could not offer. From traveling abroad, Hatsumi was keenly aware of how outside people perceived postfall-out Fukushima. One time, Hatsumi proudly shared the story of unintention-

ally scaring a worker at a boutique in Paris. According to Hatsumi, when she asked a salesclerk to send her purchased goods to Fukushima, she was met with an adverse reaction. “The store lady stepped a few inches back to take some distance from me! Fukushima is now famous, you know.” She laughed and continued, “The fact is it is universal. Many Japanese people in the same tour reacted in a similar way.”

Despite these negative experiences, she did not lose her desire to see the world. Instead, she said, “I just learned not to tell people I am from Fukushima. Sometimes it is hard to keep my story straight or not to speak with a strong regional dialect, especially to other people in the same tour,” and she tried a few words in an off-sounding Tokyo dialect to illustrate her technique. “What is more frustrating to me is how inconvenient it is for us to get to places,” she often complained to me. “Minamisōma is far from everything, and nothing is close enough. The nuclear accident made it worse than before!” This general sense of remoteness was something I heard repeatedly in the city.

More than two hundred kilometers north of Tokyo, Fukushima Prefecture is the third-largest prefecture in Japan, consisting of three distinct regions—Aizu, central Fukushima (Nakadōri), and coastal Fukushima (Hamadōri), which correspond with the mountainous area of western Fukushima, the middle (the most populous area), and the coastal side—each with a unique history and culture. Eight percent of Fukushima Prefecture, an area about the size of San Antonio, Texas, fell under the evacuation order in 2011.<sup>13</sup> Minamisōma and 1F belong to Hamadōri, where locals described the region as a *rikuno kotō* (an inaccessible corner of the land). Miri Yu’s novel *Tokyo Ueno Station* captures the complex center-periphery relations through the story of a migrant laborer from Minamisōma who travels to Tokyo in search of seasonal employment. As I will detail in chapter 6, the nuclear power plant came to Hamadōri to revitalize the region so that, the state officials told locals, they could remain there and be with their families throughout the year. About fifty years after the plant was built, in 2011, the TEPCO accident ironically resulted in displacing families and sometimes separating their members.<sup>14</sup>

Although Minamisōma is the second most populous city in Hamadōri, with a population of more than seventy thousand people in 2010, its residents have always felt that it is a provincial city with respect to Fukushima Prefecture, let alone with respect to the rest of the country. The former mayor of the city, Katsunobu Sakurai, who became known globally for his SOS message on YouTube on March 26, 2011,<sup>15</sup> lamented the historical underpinning