

**Nuclear Protest, Policy, and Peace in Postwar Japan**

by

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## Abstract

At 8:15 a.m. on August 6, 1945, the United States dropped an atomic bomb called *Little Boy* on the city of Hiroshima, instantly incinerating 80,000 people and eventually killing an estimated total of 140,000 people directly or **indirectly**. Three days later, at 11:02 a.m. on August 9, a second bomb, code-named *Fat Man*, was dropped on Nagasaki, resulting in 74,000 lives lost. Understandably, because of the deployment of *Little Boy* and *Fat Man*, the use of nuclear energy has been highly controversial in Japan.

Simultaneously, the bombings initiated the beginning of a national peace and antinuclear movement, which was started and led by the surviving atomic bomb victims, the *hibakusha*. The antinuclear movement would also grow to include the use of nuclear energy, which Japan turned to after WWII to meet its growing energy needs and end reliance on foreign oil.

These movements, both separate and yet inseparable from each other, led protests against the Japanese government in an effort to change nuclear policy. Protests—from the antinuclear movement and peace movement—have had an identifiable effect on Japanese domestic and international nuclear policy. This in particular pertains to nuclear disaster response policy, even prior to the March 11, 2011 nuclear accident in Fukushima. Protest and the discourse surrounding nuclear policy at any given time has evolved in Japan as the Japanese people moved beyond their initial horrific introduction into a prolific user of nuclear energy. Several aspects of discourse and protest, however, have stayed the same, including: *hibakusha* care, concern over radiation (especially in food), the concern over the potential for more accidents, and peace and safety, in relation to both nuclear energy and nuclear disarmament. Using Glen Hook's stages of nuclear discourse as a framework, this work identifies how trends in nuclear protest discourse have evolved since Hiroshima and Nagasaki—and in response to the disaster in Fukushima, now over ten years later. It also examines how those trends have influenced nuclear policy, as well as the role of memory in the antinuclear movement.

*Keywords:* Japanese nuclear policy, nuclear energy, protest, public opinion, memory, nuclear discourse, nuclear nonproliferation,

## Introduction

There are many reasons one might associate the word ‘nuclear’ with Japan. Despite the Japanese Government’s efforts to redefine itself and its relationship to nuclear, the most often remembered association is with Japan’s sudden and violent introduction to the Nuclear Age. While the Japanese government had pursued the potential of atomic bombs during the war, *Japan’s* relationship with nuclear power began at the end of World War II with the atomic bombings of two Japanese cities—Hiroshima and Nagasaki. At 8:15 a.m. on August 6, 1945, the United States dropped an atomic bomb called *Little Boy* on the city of Hiroshima, instantly incinerating 80,000 people, and eventually killing an estimated total of 140,000 people directly or indirectly (Morioka, 2018). Three days later, on August 9, they dropped a second bomb code-named *Fat Man* on Nagasaki, resulting in the deaths of 74,000 people (BBC News, 2020). Understandably, because of the United States’ deployment of *Little Boy* and *Fat Man*, the use of nuclear energy has been highly controversial in Japan. These two events created an identifiable antinuclear movement, which has evolved in several ways through areas of discourse, protest, and policy.

The discourse surrounding nuclear energy is driven by concerns over the lives lost and survivors who remained, environmental and health issues centering around radiation, and the security of Japan in relation to regional powers and the United States’ ‘Nuclear Umbrella.’ Japan’s decision to pursue nuclear energy following the war may have come as a surprise to some. Why would Japan adopt nuclear energy as a power source when they were so violently

introduced to the effects of weaponized nuclear power? What role did occupational and bureaucratic forces play in the near-immediate pursuit of nuclear capabilities?

The inception of this conversation, birthed from the atomic bombings and United States' nuclear testing in the Pacific, was revitalized on March 11, 2011. On that day, a magnitude 9.0 earthquake off the coast of Tōhoku, Japan caused a tsunami that overloaded three of the four reactors in the Fukushima Daiichi nuclear power plant. This triple disaster, known colloquially as 3/11, caused the injury and deaths of thousands, as well as the displacement of about 340,000 survivors. While only one of these deaths was related to radiation exposure, seven years after the initial meltdown, this event brought prior discourse and new concerns back to the attention of the Japanese people. It is no exaggeration to state that Fukushima marks an evolution in discourse about the use of nuclear energy—both peaceful and militant. The disaster raises questions about Japan's political, social, and strategic future.

Until 2011, nuclear energy provided about 30% of Japan's energy needs and was expected to continue to grow in importance throughout the decade before the 3/11 disaster (World Nuclear Association, 2022). The disaster shut down all but two of Japan's nuclear reactors by March of 2012, with the remaining two having been phased out for repair in 2013 (World Nuclear Association, 2022). Despite negative reactions and uneasy feelings regarding nuclear energy from the general populace, the first reactors were restarted in August and October of 2015, with more reactors soon following suit. Slowly but surely, these restarts have faced criticism and protest. Still, the continued reopening of nuclear plants begs the question of what role antinuclear protest movements have played in shaping Japanese nuclear policy, and if they have had any long-lasting impact at all? Furthermore, one could reasonably ask how the antinuclear movement in Japan has changed since its conception following the bombing of



Hiroshima and Nagasaki. It is also interesting to consider how the movement borrowed from early activists, particularly *hibakusha*.

There are many lessons to learn from Japan and the antinuclear movement, particularly from discourse and protest. Japan's current geopolitical situation has intensified fear over the use of nuclear weapons and concerns about overall community safety when employing nuclear energy. Japan's proximity to North Korea, China, and Russia, as well as the events revolving around the 3/11 disaster, have helped merge the concerns over weapons and energy in both policy and the national psyche. Japan's prior experience with nuclear disasters—both in relation to the wartime and peaceful uses of nuclear energy—provides the nation with a unique perspective when leading other countries in navigating nonproliferation and disarmament. It may also enable Japan to serve as an example for other countries on how a country should and should not respond to nuclear disasters.

Because the topic of nuclear disasters is complex and charged in several ways, it is important to be thorough in the approach and scope of study of the issue, as it spans several disciplines and aspects of human life in effect. In her 2006 article for Association for Asian Studies, *The Day Man Lost Hiroshima: A Matter of Perspectives*, art historian Ileana B. Leavens proposes seven different potential perspectives to approach discussing the atomic bombings of Hiroshima and Nagasaki. These perspectives are: Scientific-Historical, Historical, Political-Historical, Literary, Artistic, Peace Park, and Coordinated Studies. Of these seven perspectives, the first six listed serve as lenses through which to look at the nuclear issues of Japan. The seventh, the Coordinated Studies Perspective, is a proposed method for using these perspectives to teach students about the bombings, in order to give them a well-rounded understanding of the subject. This proposal is not unlike other projects and programs aimed at children with the

intention of teaching about peace and the atomic bombings, which we discuss in relation to both protest and policy.

The Scientific-Historical Perspective approaches the atomic bombings by attempting to understand both the science of the bombs used and the historical background of the period in which they were used. This includes creating a basic understanding of the structure of an atom, as well as the role of the atom in the different fissile elements used in the bombs, namely uranium and plutonium. Leavens notes that this perspective examines a historical background to the events leading to the creation of and use of the atomic bombs but focuses more on the scientific aspect of the history of the bombings. Rather than giving a full historical account of the science and technological advances in nuclear armaments and energy reactors, this paper attempts to define basic terms for the reader and situate them in nuclear discourse.

The Historical Perspective expands on the history of these scientific endeavors—both the causes of and the important scientific figures involved in the process. It also explores the various historical perspectives leading up to the dropping of the atomic bombs and subsequent occupation of Japan. This includes topics such as technological advances in warfare, scientific discoveries, and the political and military decisions that led to World War II and the bombings (Leavens, 2006, p. 28).

The Political-Historical Perspective expands on these topics, while examining them in relation to the political relationships between the countries involved. This perspective approaches history by placing emphasis on the role of political relations in the dropping of the bomb, as well as on the political fallout from the bombs.

The political fallout of the bombings is manifested firsthand through both the Literary and Artistic Perspectives, which approach the topic via the lens of written works and visual

mediums. Approaching the atomic bombings and their fallout through the literary and artistic expression allows us to see both firsthand and secondhand understandings and depictions of the bombs. Both primary and secondary sources related to the bombings allow us to experience these events through someone else's viewpoint. While this paper does not evaluate the works, it does discuss the role of an assortment of works of protest literature and art in relation to antinuclear protests.

The Peace Park Perspective expands further on the Literary and Artistic Perspectives. The main monument of the peace park, the statue of atomic bombing victim Sasaki Sadako, is best known and understood within the context of atomic bomb-related literary and artistic expression. Leavens suggests examining the visual and symbolic meanings of the monuments of the peace park. While the park provides information from other perspectives, such as the scientific background of the atom bomb and the history of World War II, Leavens suggests that its most meaningful contribution is the messages of peace it leaves in its visitors.

While Leaven's perspectives were intended for use in teaching about Hiroshima and Nagasaki, this framework works well for understanding how Japan's relationship with nuclear energy has evolved since Fukushima. The artistic and literary works born from such a tragedy are best understood in their historical, political, and social contexts. Knowing these contexts by themselves is not enough. The literary and artistic works provide important documentation of the complex and contrary feelings and thoughts of artists as historical events occurred, prior to historical hindsight.

The Scientific-Historic Perspective is an important context for understanding the plight of the nuclear victims. How can one fully comprehend their concerns if they do not understand the basics of radiation? In addition, there must be some understanding of the role of the creation of

the bomb and of nuclear energy in general, and its role in history even before its use. Its historical context, particularly the development of the atomic bomb in warfare technology, is something that must be discussed. During its development, it was spoken of mythologically, as a “Bomb to End All Wars,” a name that has ongoing political and social weight on the psyche of the world.

The Political-Historical Perspective is especially important here when it comes to the questions of the use of the atomic bombs within the context of the relationships between the United States, Britain, and the Soviet Union. Why were two new and different types of bombs used on Japan? Why not continue the firebombing the Allies had already been using on Japan? Why didn’t the United States wait longer before bombing Nagasaki? While these questions are discussed in academic literature and in visual documentaries, they are also discussed in written and visual entertainment media, for the purpose of educating and engaging a wider audience at a younger, more impressionable age. Survivors of the atomic bombings, called *hibakusha*, have also made contributions outlining their experiences.

Leavens uses the Peace Park Perspective as a way to look at the peace park’s intended messages and the symbolism behind the monuments themselves, through an art history lens. It is worth noting the role of the peace park, its messaging, and who created it. Whose voices are present in these peace parks, not just Hiroshima Peace Memorial Museum, but also other peace parks erected before and after Fukushima? What programs and projects do the museums take part in that contribute to or further their messages of peace? What is their role in nuclear discourse?

My intention is to use these perspectives as a framework to understand the relationship between the Japanese government’s nuclear energy policy decisions and anti-nuclear protest over

the last few decades. This work attempts to capture some of the contradictions of Japanese nuclear policy and its political actors. There is often a conflict between the personal goals of political figures, such as Nobusuke Kishi and Shinzo Abe, and national goals and public opinion. These competing and contradictory interests have created a network of relationships and goals that have changed over time. As a result of the ideological bifurcation between nuclear weapons and nuclear energy, tension between Japan's energy needs and nuclear weapon generation did not exist in the wider Japanese public until after the 3/11 disaster. It is important for anyone hoping to learn from Japan's experiences with nuclear disasters that they understand the roles people, organizations, and states play in relation to each other when creating nuclear policy. As long as nuclear energy and weapons exist, the need to study Japan's response to these disasters persists.

## Chapter 1: Defining Something We Can't See

There are many terms in nuclear discourse, including the term “nuclear discourse” itself, that need defining in relationship to each other. By doing so, we can better understand how policy and protest have interacted as a result of nuclear discourse. These terms come in two general categories that bleed into the other: the scientific (nuclear) and the social/political (disaster). Both of these can also be viewed in terms of a cause-and-effect relationship. These terms, which define the scientific aspects of nuclear energy and the social/political outcomes of a nuclear disaster, must be understood together in order to grasp fully the legal and ethical definitions of *hibakusha*. By defining these terms together and in relation to each other, the connections between the scientific/historical and social/political are clarified.

Understanding Japanese nuclear politics involves more than one discipline. It also involves more than one set of terms and contexts that come with these perspectives. My objective here is to explain the relationship between nuclear protest movements and government policy rather than to give a comprehensive history of the subject. With this in mind, I have chosen terms from each perspective that require defining in this context. Of course, one might understand a term such as “memory” on its own, but we cannot presume that everyone reading this understands memory in the context of political movements. Such an assumption risks misunderstanding the relationships between the concrete events and policies and the intangibles of memory and protest. By defining these terms, each reader is given the necessary background to understand the magnitude of the nuclear disasters in Japan’s social and political atmosphere.

The bombings and the Fukushima disaster are often minimized in American history textbooks, presented as events that happened and then were “over.” However, the truth is that

they've had lasting impacts on nearly everything in Japan, including the environment and the people. As governments around the world continue to pursue nuclear weapons and energy, understanding the impact they've had on Japan is necessary to prepare for how a country responds to a nuclear disaster. This sentiment may be considered dramatic, but as I write this, more reports come of Russia threatening use of nuclear weapons on Ukraine and holding out the possibility of bombing nuclear power plants, underlining the need for this discussion.

## **Nuclear**

In order to understand nuclear discourse, you must understand what 'nuclear' means first. According to the International Atomic Energy Agency (IAEA), nuclear energy is a form of energy that is released during the process of fusion or fission from the core, or nucleus, of an atom. Fusion, the process of nuclei fusing together, is harder to achieve and is not a feasible energy option under current technological capabilities, though fusion energy production is being pursued (Chatzis & Barbarino, 2021). On the other hand, nuclear fission is the process of splitting the nucleus of an atom into two or more smaller nuclei (Galdino, 2022). While nuclear fusion might not currently be a feasible source, we extensively use nuclear fission to create energy for electricity. The Fukushima Daiichi Nuclear Power Plant used GE boiling light water reactors (BWRs), which rely on a reactor core of low-enriched uranium that uses nuclear fission to heat water to a boil. This boiling water creates steam that drives a turbine, thereby generating energy (World Nuclear Association, 2022). In addition to relying on nuclear fission for

electricity, nuclear fission was employed in the two atomic bombs used on Japan, as well as in other types of nuclear bombs being created today (Atomic Archive, n.d.).

### ***Nuclear Discourse***

What can be defined as nuclear discourse? Glenn D. Hook, a specialist in Japanese politics and director of the National Institute of Japanese Studies (NIJS), refers to nuclear discourse as a “nuclear chain” with radiation as the “critical link” between people both as “aggressors and victims” (Hook, 1987, p. 32). Hook identifies nuclear discourse in reference to not only the atomic bombings, but also as the “chain between human beings as users of nuclear weapons and as victims of their use which links uranium mining, weapons research and development, production, testing (atmospheric, underground), deployment (land, sea, air, space), transportation, use (past, present, future), and victims of use, with all the infrastructures, both physical and ideological, necessary to those who can use nuclear weapons” (Hook, 1987, p. 32). By this definition, Hook describes pro-nuclear discourse as centered on the user’s perspective while antinuclear discourse focuses on the victims’ perspective of nuclear weapons. Hook goes on to delineate the evolution of the victim’s perspective in discourse as having five stages: 1945-1951, 1952 to 1954, mid-1950s to early 1960s, early 1960s to late 1970s, and the late 1970s to 1987. This discourse evolved as the antinuclear protest movement expanded to include new nuclear experiences and anxieties. These new experiences and anxieties revolve around and are connected to this critical link—radiation.

### ***Radiation***

Radiation comes in two forms—non-ionizing and ionizing. Each of these types acts differently based on the way it interacts with atoms or molecules. According to the International



Atomic Energy Agency, non-ionizing radiation is less energetic radiation that is incapable of detaching electrons from atoms but is able to vibrate molecules to create heat (2020). Forms of non-ionizing radiation include microwaves, visible light, radio waves, and infrared light. On the other hand, ionizing radiation is a type of radiation that can detach electrons from atoms or molecules, which causes changes to matter at the atomic level, including in living organisms (Galindo, 2022). These atomic changes involve the production of ions, electrically charged atoms or molecules (Galindo, 2022). Ionizing radiation can be used in small doses for x-rays or radiation cancer treatments, but these are done in limited amounts for a short duration of time. These limits are utilized precisely because long-term exposure can do more harm than good to cells. Ionizing radiation in high doses or with sustained exposure over an extended period can damage cells, break down organs, and cause cancer, other illnesses, or death (Galindo, 2022).

## **Disaster**

The United Nations Office for Disaster Risk and Reduction (UNDRR) defines disaster as “a serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts” (2022). UNDRR recognizes disasters have distinct categories and vary in degree of severity. They have defined these categories in their *Sendai Framework for Disaster Risk Reduction 2015-2030*. Under the Sendai Framework distinctions, the Fukushima 3/11 disaster was a sudden-onset disaster, which is a disaster triggered by a hazardous event that emerges quickly or unexpectedly. The atomic bombings of Hiroshima and Nagasaki were also sudden-onset, large-scale disasters, though they were man-made disasters. This definition of sudden-onset disaster includes

earthquakes, tsunamis, and critical infrastructure failures, all three of which Fukushima suffered. The Sendai Framework also establishes a large-scale disaster as a “type of disaster affecting a society which requires national or international assistance” (2015, p. 11). The meltdown at the Daiichi plant required international assistance and had the potential to affect a substantial portion of Japan, including Tokyo. The risk of a potential larger nuclear disaster could affect us on a global scale.

The nuclear disaster or catastrophe goes beyond the initial event or series of events. Radiation lingers like trauma in the psyche. The disasters of the atomic bombs were not over with the initial bombings of Hiroshima and Nagasaki, nor were they over with the initial rebuilding of those two cities. Likewise, Fukushima’s 3/11 disaster still continues to inflict damage on its victims.

### ***Victims***

Every disaster has victims of varying degrees: those who lost their lives, those who lost their livelihoods, and those who lost everyone in their life. Each disaster impacts each victim differently, and this is made more complicated because of nuclear energy and its radiation. Within the context of atomic bombings, there are two types of relevant victim groups: the immediate dead and the *hibakusha*, or atomic-[bomb] affected people. The immediate dead, which includes those instantly killed and those killed shortly after as a direct result of injuries or radiation sickness, become a number associated immediately with the disaster. This happens because the structured state disaster response is still happening. Creating a death toll for *hibakusha* victims in this context is difficult, as the detrimental effects of radiation are not

always immediate. Some people may develop cancer several decades later as a result of their radiation exposure. Surely this death counts towards the total victim count for the disaster.

Clearly the number of dead may be considered differently as a result of delayed radiation poisoning. However, it is also worth mentioning that numbers, particularly for the atomic bombings, are likely inaccurate due to: 1) the loss of census records in the bombings and subsequent fires, 2) the burning of bodies in the fires before counting could begin, 3) the fleeing of some citizens to the countryside or to family elsewhere in Japan, and 4) the fact that Hiroshima had many workers who commuted there (Wellerstein, 2020). As a result, death estimates for Hiroshima have been made using the pre-raid population number of 255,000. However, this number does not take into account workers who commuted to Hiroshima (Wellerstein, 2020; Atomic Archive, n.d.). Without census records or concerned family members to note their absence, some dead went without acknowledgement. While these additional fatalities may not change the death totals dramatically, they nonetheless deserve recognition.

### ***Reparations***

The United Nations Office of the High Commissioner for Human Rights (UNOHCHR) defines reparations as “measures to redress violations of human rights by providing a range of material and symbolic benefits to victims or their families as well as affected communities.” UNOHCHR further adds that reparation must be proportional to the severity of the violations and the harm suffered by victims. Reparations include restitution, compensation, rehabilitation, and satisfaction. Essentially, restitution attempts to restore the victim to the state of being before the violation occurred, which includes acts such as return of property and residence to the victim and the restoration of one’s citizenship or rights (UNOHCHR, 2022). While monetary compensation

is common, it is not the only type of reparation expected by victims. However, monetary compensation is the most often considered when the word reparations comes to mind. Karl Marx refers to money as an “equivalent exchange.” Yet what is the “equivalent exchange” that can be given to compensate for the loss of human life? Even in cases where the victims continue living, how do you put a price on a complete change to the trajectory of your life, to how you interact with others, to how you experience the world going forward?

This is why reparations also include rehabilitation, providing psychological and physical support, and other rehabilitation services, such as providing disability services or mobility support. Even when the physical disaster is over and life has supposedly returned to normal, victims of disasters suffer from their memories of the disaster and can relive their losses daily. Some develop mental health concerns such as Post Traumatic Stress Disorder (PTSD), anxiety, or depression as a result of their experiences. In less severe cases, people struggle to return to their daily routine. Physically, some are forever altered immediately following the event, or they eventually develop chronic health conditions related to environmental or physical exposures, such as pulmonary problems or gastroenteritis from breathing in fumes or being exposed to waste (Freedy & Simpson, 2007). In the case of Japan’s nuclear victims, the radiation they were exposed to forever altered them, putting them and their descendants at higher risks for health problems like cancer and organ failure. Satisfaction, another aspect of reparations, includes the acknowledgement of guilt and an apology, the construction of memorials, and the guarantee of non-repetition, which includes the “reformation of laws and civil and political structures that led to or fueled their violence” (UNOHCHR, 2022). In radiation victims' cases, the issue of the

guarantee of non-repetition remains a focal point of their antinuclear demands. How can they forget, when the specter of another potential nuclear crisis looms somewhere in the future?

### *Memory*

Memory can be broadly defined as the individual or shared perception/recollection of an event or series of events. Memory is both misremembering and remembering impressions of events or feelings, a reflection of the erosion of time and continuous recollections. There is no single, universal memory for an event or period of time. Rather, there are multitudes of contradicting and overlapping narratives. Just as there are differences between victims' memories and perspectives of the disaster, there is a difference between state/official memory and victim memory. What the government chooses to remember is made into history and fits into the state historical narrative that fits the Japanese government's needs. Memory accounts for these gaps in history and the historical narrative, addressing and giving voice to the emotional, personal, and communal experiences often left behind in official historical accounts. As a result of this understanding, there can be no history without memory. History itself is made of a conglomeration of political agendas, facts and memories, the qualitative and quantitative, all combined to give the next generation a glimpse into the past and those who lived in it. This understanding of politics, history, and memory allows us a deeper understanding of the peace parks as ideological state apparatuses (ISAs) and gives an understanding to how memory plays a role in antinuclear protests in both function and perception. But what are ideological state apparatuses?

In his work *Ideology and Ideological State Apparatuses*, French Marxist philosopher Louis Althusser coined the phrase ideological state apparatuses as a societal structure of social

institutions that interact on “multiple, political realities” that cultivate many ideologies—the religious, ethical, political, legal, etc. (1970). Examples of ideological state apparatuses include various social institutions—schools, churches, social clubs, museums, news media, and now even social media. Althusser distinguishes ISAs as controlled by the dominant class in order to uphold dominant ideology and power structures. The state and those in the dominant class who benefit from upholding a specific social or political order may not always directly control these groups through leadership. Instead, they often use financial means to fund projects or groups with the intent of exerting control or applying pressure to comply. With this in mind, it may explain why peace memorials and museums in Japan such as the Hiroshima Peace Memorial Museum are involved in nonproliferation and antinuclear protest and lobbying but refrain from criticizing nuclear power. Rather, their willingness to support nuclear energy following the atomic bombings may have to do with the Japanese government’s role in both 1) the establishment of national peace parks and 2) its eagerness to pursue and maintain hegemony in nuclear energy for both security and their own geopolitical independence.

Ann Rigney, a professor of memory studies at Utrecht University who focuses on cultural memory and social movements, describes the connection between memory and activism as “civic memory,” a “nexus of recycling, recollection, and political action.” This civic memory connects how prior protest movements were remembered with how movements want to be remembered in the future and perceived in the present (Rigney, 2018). The collective memory of the postwar, antinuclear protests and particularly the ANPO protests of the 60s are attached to the memory of their “senseless violence.” This is something protest organizers following Fukushima were aware of and wanted to veer away from (Wiemann, 2019). This collective

memory forms the basis of the relationship between the immediate postwar, antinuclear protests and the protests following Fukushima into our current time.

## **Hibakusha**

It is important to understand that the Japanese term *hibakusha* is a medical classification as well as a political classification. The term sets these victims apart from the rest of Japanese society. In addition, the legal definition of *hibakusha* delineates who is considered an atomic bomb-affected person, and that identification dictates aid. Victims of the atomic bombs and those who responded immediately following the bombing had to deal with recognizability politics. Which lives lost following the atomic bomb are *hibakusha*? Or are they recognized as *hibakusha* by others, even if they don't consider themselves as *hibakusha*? Which groups of people were not considered *hibakusha*, and why? This is especially relevant in the discussion of Okinawan and Korean *hibakusha* who were often excluded from the Japanese definition until (and even after) legal rulings forced the issue (Palmer, 2008; Osaki, 2015). Accountability at the highest levels—what did the Japanese government know and when did they know it—plays a major role in this discussion. If the Japanese government recognized those who were not present during the bombing but responded immediately after as *hibakusha*, they would have to acknowledge some responsibility for not warning those responders, despite early on having knowledge that there was radiation present at the bomb sites.

Instead, the Japanese government used categories to describe and classify a victim class of those affected by the atomic bombings: e.g., *genbaku shōgaisha* (people injured by the atomic bombing) and *hibaku seizonsha* (exposed survivors). According to the law for Health Protection and Medical Treatment for Atomic Explosion Sufferers (Hook, 1987, p. 37), *hibakusha* are either

those who were present during the bombings of Hiroshima and Nagasaki, who were on site within two weeks of the bombings during rescue efforts, or who worked in cleanup for other disaster response-related efforts. Anyone *in utero* within one of those three categories is also legally defined under the law as a *hibakusha*. This legal definition is problematic as it leads to the exclusion of other victims of radiation and strictly defines *hibakusha* as atomic bomb victims only. These legal designations defined the extent of the disabilities the victims might experience and what benefits and care they were eligible to receive. The legal designations may have provided medical care, but these designations also provided a legal status that “others” them from non-atomic bomb victims.

Ito Takeshi, a *hibakusha* social scientist, defines *hibakusha* as “those harmed by exposure to radiation” firstly via the bomb and then through other nuclear actions, including those involved in the Lucky Dragon #5 Incident (Hook, 1987, p. 37). In 1954, a Japanese fishing vessel named Lucky Dragon #5 was caught in radioactive fallout from United States’s nuclear testing at Bikini Atoll (Gordon, 2003, p. 282). The twenty-three crew members aboard were exposed to radioactive fallout that resulted in the subsequent death of crew member Aikichi Kuboyama a few months later. The remaining twenty-two crew members, under the legal definition, are not considered to be *hibakusha*. Ito’s definition goes beyond the bombings on Japanese soil and adds an understanding that the effects of radiation take place long after the event. Further, it prepares for the eventuality of nuclear war, where yet more victims would be created. In this study, I rely on Ito’s definition of *hibakusha*, as it provides for the possibility of future nuclear disasters where there might be yet more victims. The importance of Ito’s definition and understanding of *hibakusha* plays a central role in nuclear discourse.



## Chapter 2: The Bomb and Postwar Response (Postwar Peace, Protest, and Proliferation)

The Nuclear Age began in 1945. Its violent genesis birthed discourse, protest, and policy in ways that would continue to shape our global, geopolitical security today. In order to best explain the effect of discourse and protest on policy implementation, the scope of time during which this took place must be described. According to Hook, the evolution of the victim's perspective of discourse has had five stages. These stages are 1945 to 1951 (Censorship and Nuclear Taboo), 1952 to 1954 (Anti-Americanism), mid-1950s to early 1960s (Radiation as Violence), early 1960s to late 1970s (Victims of the Bomb or of the US?), and the late 1970s to 1987 (*Hibakusha* in Discourse of Law and Protest) (Hook, 1987, p. 36). As Hook's stages end with his publishing date, I have taken it upon myself to designate and propose two additional periods of discourse, namely 1990 to 2010 (Peace and Disarmament) and 2011 to date (2023) (Post-Fukushima). Despite these periods being in the age of the internet, there is a distinct lack of quantitative studies on nuclear discourse during this time.

There are several perspectives on the question of when the antinuclear movement began in Japan. For many scholars, such as historians Toshihiro Hibushi and John W. Dower, the beginning of the movement can be attributed to the Lucky Dragon #5 Incident, rather than with the nuclear bombings of Hiroshima and Nagasaki. As a result of censorship imposed by both the United States' Occupation Press Code and the Japanese Government related to the atomic bombings and associated topics, the population of Japan remained largely unaware of the full implications of the bombings. What is worse is that what information did spread included dangerous misinformation, such as radiation poisoning being contagious. The censorship and misinformation—firstly by the Japanese government and then by Occupational forces—made Japanese citizens consider the cities' bombings as an extension of the United States' regular

firebombing. As a result, they isolated *hibakusha* because of their mutilated physical appearances, symptoms of radiation sickness, and perception as being “contagious.” While this may have stymied the creation of a cohesive national movement until the Lucky Dragon #5 Incident, it did not prevent the rise of smaller protests, both organized and individual. Scholars such as political scientist Glenn Hook and historian Andrew Gordon mark the Lucky Dragon #5 Incident as a *catalyst* for nationalizing the movement. For my part, I regard the beginning of the antinuclear movement in Japan as immediately following the WWII bombings, as *hibakusha* and those not officially recognized as *hibakusha* but who responded to the disasters took part in various protests, including speaking or publishing works about the bombings and demanding survivor care despite censorship. This is an important distinction to make, as nuclear discourse has evolved to center around *hibakusha*, with the Lucky Dragon #5 Incident serving as a link between the *hibakusha* and the greater Japanese populace. This new nuclear discourse recognized actual and potential victims of radiation who suffered their exposure in other events outside of war.

In discussing the bombings of Hiroshima and Nagasaki, Hook identifies three main points that come up most often: 1) the bombing of Hiroshima and Nagasaki as a sacrifice made in the context of war and part of fighting for one’s country, 2) the bombings as a sacrifice resulting in the end of the war with fewer casualties, and 3) the bombings as a link between aggressor and victim. By considering the bombings as a sacrifice made in the context of fighting for one’s country, conservatives argue that the lives lost in the bombings are similar to the lives that have been laid to rest at Yasukuni shrine. Yasukuni shrine is a Shinto shrine that has deified the souls of the war dead, including ‘A class’ war criminals who were guilty of perpetrating war crimes and starting World War II. This shrine raises the souls of the war dead to the rank of *eirei*,

the souls of those who died as a result of loyalty to the emperor (Hook, 1987, p. 33). Yasukuni shrine is a symbol of the militaristic and nationalistic spirit of the Empire of Japan, and by linking the deaths of war criminals to the deaths caused by the bombings, conservatives attempted to foster a justification for the deaths as inflicted both out of love for nation and with “purity of intent” (p. 33). This being done by “perverting the standards for judging war responsibility: supporters of the war praise the subjective intent of Japanese soldiers —i.e., their purity of heart—not their objective actions, and points to the objective results of the war—i.e., the release of Asians from the yolk of European imperialism—not the aim of Japanese leaders to dominate Asia” (Hook, 1987, p. 33; Miyata, 1982, p. 26). In this way, this unpopular right-wing sentiment attempts to shirk war responsibilities by co-opting sympathetic sentiment towards the bombing victims within the *eirei*, as all can be seen as deaths made in the war effort and out of loyalty to their emperor, something they believed to be a morally just cause (Hook, 1987, p. 33). This is also an attempt to link victimhood between the atomic victims of Japan and the Japanese military.

The bombings of Hiroshima and Nagasaki as a necessary sacrifice that saved lives by preventing the need for a bloody and far-reaching assault on the Japanese mainland and ending the war is a common argument I hear all the time. The idea of the bombs ending the war is not quite true. In reality, the bombings were largely considered by the Japanese government to be an extension of the regular firebombing that they were already enduring. Further, the Japanese forces had taken serious losses and were being forced back after the Battle of Okinawa. Accepting the myth that the bombs were the sole reason for the end of the war also ignores the importance of the United States’ Operation Starvation—an initiative that was effectively cutting off food supplies to Japanese citizens—and the Soviet Union’s declaration of war against Japan.

This myth also suggests that the Japanese government surrendered to “avoid more Hiroshimas” or out of concern for the Japanese citizenry. However, the reality is that the Japanese government had already proven itself willing to sacrifice every single Japanese life in order to “preserve the *kokutai*.” This general lack of concern for individual lives was underlined in both the initial response to and the provision for the required care of *hibakusha*. In policy, these lives have not been a priority.

This view of the bombings as an unnecessary act that was not the cause of the end of a war, but the beginning of the nuclear age is a point of view *hibakusha* hoped to establish. They hoped that *hibakusha*'s continued suffering would demonstrate that the use of nuclear weapons and their effects would outlast war and impact civilians into the future. Without a doubt, *hibakusha* voices are amplified in discourse. Unfortunately, there have been misconceptions that have hindered both the immediate postwar movement and the post-Fukushima movement. These are mainly the result of misinformation about radiation and the effects it has on the body and the environment (such as being contagious). Much of the discourse also includes war responsibility and reparations on behalf of the Japanese and United States governments, war denial by the Japanese government, subjectivity, and the Japanese government's response to the bombings and to the *hibakusha*'s plea for health care in the following years, including after Fukushima. *Hibakusha* leaders of discourse, such as Ito Takeshi and Kenzaburō Ōe, aim for using specific strategies and verbiage to remind people that these issues are not just in the past, but that they also affect our present and future. Hook identifies four main tasks of antinuclear protestors in delegitimizing pro-nuclear discourse: 1) to undermine the suggestion that bombs were dropped to save lives, 2) to demonstrate the Japanese government's war responsibility related to the bombings and for taking care of the victims, 3) to challenge international acceptance of nuclear

weapons, and 4) to establish the victim's perspective on the bombings and the use of nuclear power (p. 34).

### **1945-1951 (Censorship and Nuclear Taboo)**

Discourse from the victim's perspective has evolved since the bombings and has continued to change post-Fukushima. In the first years of the movement following the bombings, from 1945 to 1951, the victim's perspective was limited to that of the *hibakusha*. This was the beginning of the effort to separate the victims symbolically, presenting *hibakusha* as victims of the bomb as opposed to victims or survivors of the war. Immediately following the bombings and the war, Japanese authorities engaged in the censorship of the atomic bombings and aftermath as an extension of wartime censorship (Brodie, 2015, p. 845). In addition, during the US Occupation, the Press Code also prevented discussions of the US military, the atomic bombings, radiation, or anything that might reflect poorly on the United States (Gordon, 2003, p. 280-282). The censorship of any discussion of nuclear weapons and the realities the *hibakusha* were dealing with served to isolate them. It also resulted in delays in research and in compiling information about the effects of radiation and radiation sickness that could have saved more lives. In many cases, keloids (masses of scar tissue) or balding marked *hibakusha* physically apart from non-*hibakusha*, which further isolated them. This made it difficult for *hibakusha* to protest against the United States or Japan to be heard because the victims themselves were socially and physically shunned by their own communities and even by their own families.

### ***Protest under the Press Code and Censorship***

Social change was in the air following the war, resulting in several student movements and labor movements, including coal miner uprisings in 1946. John Dower describes the social

conditions as the *kyodatsu* condition of exhaustion, as well as the heartfelt hope for peace and democracy. It was these popular feelings and aspirations that leftist student movements sought to use to achieve the peaceful transition of power that was more equitable and suited the will of the people (i.e., the laborers) (Dower, 2000, p. 255). Socialists, Communists, and other political prisoners were released from the Imperial Japanese Government's prisons by the Supreme Commander for the Allied Powers (SCAP, aka General Headquarters or GHQ) in the Removal of Restrictions on Political, Civil, and Religious Liberties (SCAPIN-93) directive, issued on October 4, 1945. Despite Press Code censorship, people still discussed various topics related to peace and democracy, including the use of the bomb and general criticism aimed at both SCAP or Japan. These discussions were often facilitated through various types of publications, all of which were confiscated. Publications were made in easily discardable forms or through less conspicuous grassroots avenues, such as local press, school newspapers, or company/union newsletters (Dower, 2003, p. 242). In addition to these more organized small-scale protests, individual artists and art groups, known for *Avant Garde*, anti-war protest art, distributed zines and flyers. It is true that the Press Code censorship prevented more permanent, larger, and organized forms of protest around the bomb. However, grassroots efforts to protest nuclear weapons and call attention to the atomic atrocities were giving birth to what would become the larger and more unified antinuclear movement.

In addition to suppression under the censorship of the Press Code, one explanation for the lack of more significant protests would be the health of the *hibakusha* and the social conditions in which many were living. Many victims who survived the bombings suffered for months afterwards as a result of radiation sickness. In his semi-autobiographical manga, *Barefoot Gen*, Keiji Nakazawa shows the effects of radiation sickness even weeks after the initial disaster. John

Hersey's *Hiroshima*, which details several survivors' accounts of their experiences of Hiroshima's bombing, also shows several victims receiving medical care in the months and years following the bombings. In addition to this, survivors had to bear unbelievable poverty and famine while attempting to rebuild their homes and lives. While angry protests against the Japanese and United States governments were certainly aired, there was considerably less support and ability to do anything for the *hibakusha*. Instead, this period seems to be a period of lives-as-struggle protest, in which actions of daily life serve to protest established power structures and expectations. While Japanese antinuclear activist Sabu Kohso uses "lives-as-struggle" in reference to the post-Fukushima protest movement, the distinction of "lives-as-struggle" protest is also relevant and applicable to these immediate postwar conditions.

In Nakazawa's third volume (of ten) of *Barefoot Gen*, the main character Gen is tasked with caring for another survivor of Hiroshima. This survivor was severely burned and in need of medical care. Their sense of familial duty forced the family to take the man in, but they would not approach him for fear of his radiation being contagious. As a result of radiation and the heat of the blast, his skin had melted and was decaying, and lack of care had allowed maggots to infest his wounds. Several times his family members state things such as "If only he'd hurry up and die..." (p. 22), referring to him as a "monster" and "freak" (p. 31-33). After caring for the man, Gen finds the family in another part of the house, which he is chastised for entering because he'd been exposed to Seiji's "bomb disease" and told not to enter again. In an environment where even your own family wants you dead, within a country that holds "family" to be a core value, simply continuing to live is considered protest. With this in mind, Kohso describes lives-as-struggle to be involving every aspect of existence—mind/body, social relationships, and environment. For a short period, we follow Seiji's care and growth, as he

learns to paint again using his mouth and burn-damaged hands. Stories like that of Seiji, of those struggling to continue to live following the bombs, and of those still making efforts to participate in life despite being othered by radiation, mirror the lives-as-struggle protest that followed the Fukushima disaster.

### ***Protest via Memory and Memorial***

One significant action of both protest and policy is the lobbying for and passing of the Hiroshima Peace Commemoration City Construction Law and the Nagasaki International Cultural City Construction Law in 1949. Article 1 of Hiroshima's law calls it a "peace memorial city" meant to symbolize the "human ideal of the sincere pursuit of genuine and lasting peace" (Hiroshima for Global Peace, 2018). According to the Hiroshima Peace Memorial Museum, the Hiroshima Peace Memorial City Construction Law received over 90% support from Hiroshima City voters. Through this, the *hibakusha* themselves had say over what to do in some capacity over the rebuilding of their homes and city, and over how their city would look and operate in the future. (After all, they also held an open competition for peace memorial park designs). The residents of Hiroshima knew their future would be associated with their atomic past and decided to change their narrative from passive victimhood to active pursuit of peace in spite of and as a result of their past. While not a conventional method of protest, I believe that this intentional emphasis on peace and the near-total city involvement shows a collective effort and desire to define their identity in relation to the disaster outside of 'victim' and assert their desires for the goal of peace.



### **1952-1954 (Anti-Americanism)**

In 1951, the United States and Japanese governments signed the US-Japan Security Treaty and the San Francisco Peace Treaty, which ended the US-Allied Occupation of Japan and its censorship on April 28, 1952. The period of 1952 to 1954 is an intense shift in the understanding of *hibakusha* and their struggles. Immediately following the abolition of the censorship of the Press Code, the magazine *Asahi Graph* released an exposé on the bombings and the reality of life for *hibakusha*. This was the first time the Japanese public was able to see the truth of the devastation of the bombings (Hook, 1987, p. 37). At this point, there was a shift in the Japanese perception of *hibakusha* from survivors of war to victims of atomic bombings to victims of the *American* bombings. Simply put, the revelation of the truth surrounding the bombings created an intense anti-American sentiment in the Japanese people (Hook, 1987, p. 37). This anti-American sentiment is the foundation of the breaking of the peace movement into various political groups in the early 60s.

### ***Treatment of Hibakusha***

Immediately following surrender, scientists were sent to study the effects of the atomic bombings. The National Research Council Division of Medical Sciences sent a small five-man commission, called the Atomic Bomb Casualty Commission, to collect preliminary data on *hibakusha*, the effects of the blast, and the so-called “bomb’s disease,” i.e., radiation. As a result of their preliminary findings, US President Harry Truman officially established the Atomic Bomb Casualty Commission (ABCC) in 1946 (National Academy of Sciences, 2022). By 1950, the ABCC had full funding for research on cancer, cataracts, survivors' aging and mortality rates, sex ratios of survivors' offspring, infant mortality and stillbirth rates, cognitive and physical disability, and genetics (National Academy of Sciences, 2022; US Atomic Energy Commission,

1947). Unfortunately, the problem with this approach was that they were only doing research and treating the *hibakusha* like guinea pigs, rather than treating them as patients. In fact, in Part II of the *Atomic Bomb Casualty Commission's General Report January 1947*, the scientists report that neither the ABCC or SCAP was providing Japanese hospitals with penicillin or other medicines for treatment. They explained that they wanted to encourage Japan's manufacturing of it themselves and keep them from becoming "too reliant" on Americans (p. 6-8). Reports of various abuses, such as survivors being forced into research facilities and having photos taken without their consent, were filed by *hibakusha* against the ABCC. Many stated they felt violated and treated as inhuman (Mainichi Shimbun, 2017). In 1975, the ABCC was replaced by the binational Radiation Effects Research Foundation (RERF), which apologized in 2017 for its predecessors' role and its own role in studying, rather than treating, victims of the bombs (Mainichi Shimbun, 2017; Kohso, 2020; National Academy of Science, 2022).

### ***Moving Forward with Nuclear Energy***

Although there are a number of reasons why Japan pursued nuclear energy following the atomic bombings, the majority of these reasons stem from concerns over Japan's security and positioning in the Pacific. Prior to and following WWII, Japan relied heavily on coal for energy. However, in the 1950s, the Ministry of International Trade and Industry (MITI) began efforts to shift away from coal to oil as a result of miner's labor unions' protests and strikes, as well as the high cost of importing energy (Gordon, 2003, p. 258). These labor protests disrupted the national supply of coal and made other options more necessary. In 1950, the Diet passed the Comprehensive National Land Development Act and put in place regulations to restrict oil imports and subsidize coal mines. In addition, it diverted more attention to geothermal and hydroelectric power, and it left open the potential for nuclear power (Gordon, 2003, p. 280).

Japanese politicians such as Nakasone Yasuhiro and Yoshida Shigeru believed that nuclear energy was the key to securing Japan's economic and strategic independence. They hoped that nuclear power would be the resource that would meet their energy needs, with the potential for export. Politicians like Yasuhiro and Shigeru, both of whom were Prime Ministers of Japan, worked together with scientists and industrialists in a network called the "Nuclear Village," which was supported by US President Dwight Eisenhower's 1953 Atoms for Peace Initiative (Gordon, 2003, p. 280).

The Atoms for Peace Initiative was meant to encourage nations to seek the peaceful use of nuclear power, through the sharing of information, research, and technology between the United States and countries such as Japan, including through the creation of the International Atomic Energy Agency (IAEA) (Nelson, 2011). While these reasons sound noble, it should be noted that Eisenhower's December 1953 speech and his suggestion of the creation of an international agency for nuclear oversight was only introduced shortly after the USSR confirmed the successful test of a hydrogen bomb in August 1953 (Eisenhower Presidential Library, 2022). The Atoms for Peace Initiative and the suggestion for the IAEA was meant as a way of assuring the United States maintained some control over the dissemination of nuclear materials and resources after losing their nuclear monopoly.

### *Atoms for Peace*

Following the discovery of nuclear fission in 1938 by Otto Hahn, Fritz Strassmann, and Lise Meitner, the Japanese government and its researchers began pursuing the potential of the atomic bomb (Nelson, 2011). Though the US Occupation prohibited nuclear research in Japan until its end in 1952, it was President Eisenhower's 1953 Atoms for Peace Initiative that spurred the Japanese government to pursue nuclear energy in earnest (Nelson, 2011; Gordon, 2003, p.

280). Nakasone Yasuhiro, LDP prime minister of Japan from 1982 to 1987, referred to the moment he found out about the Atoms for Peace Initiative as the moment he saw Japan's nuclear future, stating; "When I learned that Eisenhower had switched to a policy of using nuclear energy for peaceful purposes, I thought to myself, 'Japan can't fall behind. Nuclear energy is going to define the next era'" (Gordon, 2003, p. 280; Shun'ya & Loh, 2012). Yasuhiro's track record proves this, as he introduced a budget for nuclear development in the House of Representatives only three months after the speech, which would result in the Atomic Energy Basic Law of 1955 (Jones et. al, 2013). Eisenhower's speech had been meant to redirect the world toward peaceful nuclear power, and Japanese officials were quick to act on this, despite the "Nuclear Allergy" of the Japanese people.

In between Eisenhower's speech at the end of 1953 and the Atomic Energy Basic Law's passing in 1955, an incident involving the United States' nuclear testing and a Japanese fishing vessel occurred in 1954. This event sparked outrage and further exacerbated Japan's already inflamed nuclear allergy. Despite awareness of the growing antinuclear movement in Japan by both Japanese and American officials, efforts were made immediately following the occupation to begin the development of nuclear energy. Hamai Shinzo, Hiroshima's mayor (terms: 1947-55, 1959-67), made efforts beginning in 1953 to secure a nuclear power plant in Hiroshima with the help of the United States—an endeavor that involved a resolution submitted in US Congress—and he actively supported the Atoms for Peace exhibition (Ichiyo, 2013). On January 27, 1955, US Congressman Sidney Yates introduced a bill to the US House of Representatives proposing a nuclear reactor in Hiroshima, built and paid for by the efforts of both the United States and Japanese governments (U.S. House of Representatives, 1955). Yates recognized that the United States could not call itself a peacekeeper among the international community while still bearing

the weight of having used the atomic bombs. He made it clear while presenting the bill that this endeavor would be in the interest of improving public relations and the reputation of the United States, which was being identified as the aggressor not only as a result of its use of the bombs, but because of its continued atomic testing done in the Pacific:

“Although the Soviet Union may be recognized as the aggressor in the pushing and pulling which characterizes contemporary relationships between nations, the world seems to believe that the United States is the nation most to be feared in dealing with this latest instrument of devastation, because of our professions of preeminence in the field of atomic energy and because of the identification of the atom with the bomb. Much of the world knows of no other use of the atom at the present time.” (U.S. House of Representatives, 1955, p. 873).

Yates and Shinzo’s efforts were reported by the *Chugoku Shimbun*, including that there had been previous talks of building more hospitals for radiation victims, but that instead the funds intended for these were being pledged to the nuclear reactor project in Hiroshima. The local reception of a nuclear reactor in Hiroshima was negative, especially from the *hibakusha*, with the Hiroshima chapter of the *Gensuikyō* having published a statement condemning the idea in the *Chugoku Shimbun* (Ichiyo, 2013). This statement outlined a number of concerns, namely the potential of yet another nuclear attack, the radiation from the reactor, and the involvement and control of the US government in the project. Ichiro Moritaki, a *hibakusha* and antinuclear activist, recalled meeting with American Cultural Center Director Fotouhi following the publication of the statement. Moritaki remembers Director Fotouhi shouting at him that he would “overwhelm Hiroshima with ‘peaceful use.’” (Ichiyo, 2013). Realizing they needed to garner support for their policies, the Japanese and United States governments held an Atoms for Peace exhibition at the Hiroshima Peace Memorial Museum in 1956 that would greatly bolster public reception of nuclear energy (Zwigenberg, 2012). The exhibit was meant to change perceptions of nuclear energy as the Japanese government continued to pursue it as a means of economic and

political security. Its direct purpose was to use the Hiroshima Peace Memorial Museum, a symbol of peace and restoration after the war for the city and for the survivors, as a way to forever “bless” the Atoms for Peace project and future pursuits of nuclear power. It was also meant to curb the growing anti-American and antinuclear movement in Japan. It hoped to accomplish this by fostering goodwill and scientific collaboration aimed at the peaceful use of nuclear energy. While they were not able to achieve their goal of a nuclear plant in Hiroshima, they were able to foster good feelings towards nuclear energy and begin to divide the antinuclear movement over the use and testing of nuclear energy (including under what conditions it was acceptable to have nuclear energy). This marked the ideological joining of the idea of “peace” and “nuclear energy” in Japan in earnest, particularly in Hiroshima and at the Hiroshima Peace Memorial Museum.

Despite the new support that would be born out of this exhibition, there was still the concern that the government moved forward without the will of the people or their full understanding of radiation or nuclear energy. Concerns over the use of nuclear energy, including those outlined by Japan Council against Atomic and Hydrogen Bombs (*Gensuikyō*), were largely ignored. Where *Gensuikyō* and the *hibakusha* had asked for healthcare and education related to nuclear power and radiation, they had instead received the continued pursuit of nuclear energy with little government effort to acknowledge how radiation affected the *hibakusha*. This realization was made following Fukushima, as some of the same myths about radiation and contagion heard post-bombings were repeated.

### **Mid-1950s to Early 1960s (Radiation as Violence)**

The nuclear movement became a truly national, peace-centered movement during the mid-1950s to early 1960s as nuclear discourse shifted to the Japanese populace identifying with

the victim's perspective (Hook, 1987, p. 37; Gordon, 2003, p. 280). Japan's "third nuclear attack," the Lucky Dragon #5 Incident, occurred in 1954. The incident is named for the Japanese fishing vessel and crew that was contaminated as a result of fallout from US nuclear testing off the coast of Bikini Atoll, Marshall Islands. It was the first time the general populace could see radiation as something outside of the atomic bombings and outside of war, identifying it as something that could potentially happen to *them*.

The very real possibility of such an event was further underlined for the Japanese people with the death of Sasaki Sadako in 1955. Sasaki Sadako was a radiation victim who died of leukemia at the age of twelve, just ten years after surviving the bombing of Hiroshima as a baby. This, along with the death of Kuboyama Aikichi and the acute radiation sickness of the other crew members of the Lucky Dragon #5 (*Daigo Fukuryū Maru*), solidified radiation as a concern not only of the past, but also of the present and future (Hook, 1987, p. 37; Gordon, 2003, p. 280). The fishermen aboard the Lucky Dragon #5 were simply doing their jobs that day when the weather and a poor catch led them south. These random occurrences created a situation in which they were within the larger-than-expected fallout radius of the United States' nuclear testing (House of Representatives, 1955, p. 873). Likewise, for her part, Sadako had been only an infant, with no say or role in the war whatsoever, no culpability to find in order to blame her for the radiation that came as a result of the bombing. These people simply living their lives and being exposed to radiation, forced to live, and die as a result of the actions of a state that continues to proliferate weapons of this destructive and lasting nature, imprinted themselves on the psyche of the people and drove them to wide-scale action.

These events helped the rest of the populace visualize *themselves* as *hibakusha*, which led to larger-scale protests such as the Suginami Appeal and the Council Against Atomic and

Hydrogen Bombs' (*Gensuikyō*) World Conference Against Atomic and Hydrogen Bombs in 1955. This conference called for action on international, national, and individual levels, for international bans on nuclear tests, for the governments of Japan and the United States to provide aid for *hibakusha* and other victims of the three atomic attacks, and for individuals to refuse to eat contaminated foods, particularly fish (DiFilippo, 2006, p. 71; Higuchi, 2008, p. 336). Even prior to *Gensuikyō's* organization, individuals were taking measures into their own hands, drafting petitions in their communities and reaching out to their neighbors to dissuade them from eating contaminated fish.

The Tokyo tuna market crashed completely on March 19, 1954, as a result of concerns over the Lucky Dragon #5 Incident and contamination of the tuna. This caused a massive decline in sales and the price of tuna to drop to around 60 percent of its normal market value within a month after the incident, remaining that way for over a year after the incident (Higuchi, 2008, p. 336). The Japanese government responded by installing a radioactive monitoring system and ordering the destruction of all tuna found in any of the catches that registered a radioactivity level above 100 cpm (counts-per-minute), which was the warning threshold set by the Japan Scientific Council (Higuchi, 2008, p. 336). Fears over "radioactive tuna" caused fishermen and fish distributors of the fishing industry to protest against the nuclear tests. Towns with major tuna ports and markets, such as Yaizu (where the irradiated Lucky Dragon #5 was docked), Ishinomaki, Misaki, as well as Tokyo's Tsukiji fish market, unanimously adopted resolutions that called for safety measures, compensation, and the cessation of atomic testing (Higuchi, 2008, p. 339; Hook, 1987, p. 37). Several women's groups, including the Housewives' Association (*Shufuren*) and the National Coordinating Council of Regional Women's Associations (*Chifuren*), formed a joint appeal in April 1954. Household fear and outrage over



radioactive tuna bubbled over as a group of local housewives in the Suginami Ward collected over 260,000 ban-the-bomb signatures from the ward's 400,000 citizens in May 1954. This action spurred a nationwide signature collection campaign that collected 32 million signatures from the national population of 88 million (with a working population of 58 million) (Higuchi, 2008, p. 341-342; DiFilippo, 2006, p. 70). This public pressure and the petitions themselves caused the Japanese government to revise radiation safety standards, inspired the Vienna Appeal, and eventually led to the formation of *Gensuikyō* in 1955. *Gensuikyō* was the first large-member nuclear disarmament advocacy group and first large-scale organized step in this movement (Higuchi, 2008, p. 343-344; DiFilippo, 2006, p. 70-71).

While *Gensuikyō* was formed with a multitude of groups and individuals, including labor unions, concerned mothers, and political organizations, there was also a need for organization among the *hibakusha*, for the *hibakusha*. The Japan Confederation of A-Bomb and H-Bomb Sufferers Organizations (*nihon gensuibaku higaisha dantai kyōgi-kai*, often shortened to *Nihon Hidankyō*) was founded in 1956, during the second World Conference Against A and H Bombs (held by *Gensuikyō*). It was founded with the intention of getting reparations, both for the atomic bombings and for the victims of the Lucky Dragon #5 Incident (Kohso, 2020). *Nihon Hidankyō* consistently urged the government of Japan for laws for A- and H- bomb victims as compensation and reparations for war damages. In his work *Hiroshima Notes*, antinuclear activist Kenzaburō Ōe reiterates the importance of this distinction between war damages and reparations as raising the question of the responsibility of the United States government for dropping the bombs and the Japanese government for starting the Pacific War (1996). He argues that reparations go beyond individual victims' welfare. They also extend to the Japanese government committing itself, through policy and economy, to working on international levels to

abolish nuclear arms. While Article 19 of the Treaty of San Francisco, which ended US occupation, renounces Japan and its nationals' abilities to make claims against the United States for the bombings, the Japanese government has no such legal protections.

The establishment of *Nihon Hidankyō* and the official organization of *hibakusha* concerns pushed the Japanese government to pass the Atomic Bomb Survivors Medical Care Law in 1957 (Hiroshima for Global Peace, 2022). This law was admittedly flawed and only extended the medical care for *hibakusha* to some, which excluded Okinawan and Korean *hibakusha*. In *Hiroshima Notes*, Kenzaburō Ōe discusses how Okinawans who had been present during the bombing or who had been first aid responders had returned to Okinawa. Once there, they were excluded from medical care and treated by doctors who had no experience with radiation like the doctors in Hiroshima. Ōe notes that a medical care law for Okinawans was eventually passed in 1966 in Okinawa (a decade after the mainland). He also explains how in 1968 the Act on Special Measures for Atomic Bomb Survivors was passed, further delineating those who could receive benefits and special allowances (1996, p. 25-27). Korean *hibakusha*, including both those who returned to Korea and those who stayed in Japan, also struggled to receive the medical care promised under these laws. Eventually, the Japanese Supreme Court ruled that their exclusion was illegal in 2007, reaffirming a 2007 Hiroshima High Court decision (Supreme Court of Japan, 2007).

### ***Radioactive Anxieties and Environment***

Various works of protest were born out of anxieties over the radioactive tuna and the effects of radiation. Literature and the visual arts were flourishing as a source and display of the cultural, social, and political development and involvement of the nation (as well as the antinuclear movement as a whole). Artists illuminated the political and social anxieties of the

time, often using images associated with traditional Japanese national iconography, such as the great wave, rising sun, and crane. Artists also experimented with new forms and styles that broke away from the more flowing sensibilities of *ukiyo-e* paintings. Works such as Ikeda Tatsuo's *10,000 Count* (1954), *Fisherman's Boss* (Uchinada Series, 1953), *The Haul* (Uchinada Series, 1953), and *Buried Fish* (1954), as well as Iri and Toshi Maruki's *Panel IX Yaizu* (1955) all depict the fishermen's plight, perspective, and protests against the Security Treaty. It should be noted here that the fisherman's protest was because of the stranglehold the Security Treaty had on Japanese fishing. They also protested the nuclear testing, which resulted in the Lucky Dragon #5's crew's poisoning and radioactive tuna. Iri and Toshi Maruki's *Panel II Fire* (1950) and *Panel X Petition* (1955), Nakamura Hiroshi's *Omens of a Place* (1961), and Shikoku Gorō's *Hiroshima Sketches* (works created between 1962-1985) all depict the protests surrounding the bombings, as well as the resulting Suginami Appeal.

Literature depicting these events includes Yamaguchi Tsutomu's *And the River Flowed as a Raft of Corpses*, Kenzaburō Ōe's *Hiroshima Notes* (1965), Shikoku Gorō and Tōge Sankichi's *Atom Bomb Poetry Collection* (1951), and Kikujio Fukushima's *Pikadon* (1961). Even one of Japan's most well-known mascots, *Godzilla*, was created with nuclear discourse and concerns in mind. For the sake of the length of this paper, these will not be analyzed directly, although we can note that these works did have a significant impact in humanizing and directing discourse to the idea that all people have the potential to become *hibakusha*—and suffer what is depicted in the arts—if they do not advocate for total nuclear disarmament.

In no way did the people of Japan restrict discussion of nuclear tests, radiation, and contamination to literature and art. Their protests spanned various media forms and included petitions with thousands of signatures and large group protests as a result of the nuclear tests in

the Pacific. The effects of radiation and the impact on the environment worried fishermen and mothers, two of the largest groups involved in protests. People had a very strong sense of the radiation affecting their environment, especially since the contamination went beyond just the tuna from the Lucky Dragon #5 or even fish caught from those affected waters. Instead, radiation was carried through the wind and rain to Japan from the Pacific, contaminating many food products, including strawberries, tea, milk, and various vegetables (Shun'ya & Loh, 2012, p. 324). It was the contamination of food products and the lack of responsibility from the United States government that spurred on large groups of mothers, fishermen, and other laborers whose lives and work were directly impacted by potential radiation and contamination from nuclear tests (Ichiyo, 2013, p. 184).

Fears over contamination and radiation in food such as tuna not only impacted the fishing industry but raised concerns about the genetic consequences of radiation as well. Opinion polls in the July 26, 1957 issue of the *Asahi Shimbun* showed that out of the 88 percent who opposed nuclear tests, 50 percent cited fear of radioactivity as their reason for opposition (Higuchi, 2008, p. 340). At this point, discourse and protest were centered around radiation as a form of violence. This discourse and protest took up the perspective of the *hibakusha* (including “potential *hibakusha*”) and viewed the governments and leaders who have possession of and threaten to use nuclear armaments as the aggressors.

It was during this time of negative public perception of nuclear power that the Japanese government ratified the Atomic Energy Basic Law No. 186 in December 1955 (Japan Atomic Energy Commission, 2020). This law, which advocates for the employment of nuclear power for peaceful means and under democratic management, reflects the Japanese government's effort to distinguish contaminated and dangerous nuclear weapons from clean, “safe” nuclear energy. It

hoped to improve public perception of nuclear power and radiation, as Article 2 of the law spoke of democratic management and the peaceful research, development, and utilization of atomic energy. As part of the law the Japan Atomic Energy Commission (JAEC) was established in 1956 (Japan Atomic Energy Commission, 2020). This commission was created in order to carry out national policy related to atomic energy operations, research, development, and utilization, coordinate Government agencies' activities related to nuclear energy, and conduct surveys on public perception (Japan Atomic Energy Commission, 2020). Even with efforts to improve the image of nuclear energy, the events at Bikini Atoll increased negative perception of nuclear weapons, even among conservatives in the Japanese Diet (Ichiyo, 2013). It was during this period that the Japanese government built up a public acceptance of the “peaceful atom” versus the United States' wartime uses of the atomic bombs.

### **Early 1960s to Late 1970s (Victims of the Bomb or the US?)**

The revision of the US-Japan Security Treaty in 1960 brought many political and ideological differences to the forefront of discourse and protests, most notably with the Anpo protests. The US-Japan Security Treaty (*Anpo jōyaku*) or Anpo allowed for the US to continue to keep military bases in Okinawa. In addition, it held Japan and the United States to an agreement of aid during a crisis, and it allowed US weapons to be stored on Japanese soil, including nuclear armaments, namely at bases in Okinawa (Gordon, 2003, p. 282, Higuchi, 2008, p. 353-354). This put Japan under the US's “Nuclear Umbrella,” placing it under the protection of the US's nuclear armaments while publicly lampooning nuclear weapons. Needless to say, this was a hypocrisy many held against the newly formed Liberal Democratic Party (LDP) (DiFilippo, 2006).

Protestors felt that the Anpo treaty brought Japan to the front lines of the Cold War, making them potential targets for yet another nuclear attack. It is true that the revisions of the

treaty made the relationship between Japan and the US more “fair” or “equal” in that the United States was now pledged to come to the mutual aid of Japan. Further, this revised treaty required the US to inform the Japanese government in advance before mobilizing more forces in Japan. The revisions also held that Japan should have to help pay for the creation and management of new bases that were “benefiting them.” It should be noted here that these revisions had been suggested as early as 1952, but it wasn’t until 1955 that then-Prime Minister Ichirō Hatoyama formally proposed these revisions out of concern for “US-Japan equality” (Gordon, 2003, p. 284). While Hatoyama’s proposal was initially denied, his second successor (his first resigned after two months due to sickness) Nobusuke Kishi made the treaty revision his main priority. He finally achieved his objective in January 1960, pushing the bill through the Diet despite massive opposition and widespread protests against the revisions.

### *ANPO Protests*

There are two main goals the LDP held during the period leading up to the Anpo protests: 1) to revise and strengthen Japan’s military position in the US-Japan Security Treaty, and 2) to abolish Article 9 of Japan’s constitution, which outlawed war as a means of settling international conflict and renounced Japan’s right to maintaining military forces. These aims were consistent with the sentiments of many of the members of the LDP prior to the forming of the LDP, prior even to the creation of what we now consider Japan. Many of the leading politically conservative figures I have described—including Prime Ministers Ichirō Hatoyama and Nobusuke Kishi—were involved in Japan’s imperial wartime government. However, they were pardoned by the United States government, either immediately at the beginning of the occupation or in 1947 following General MacArthur’s “Reverse Course” (Kapur, 2018). Initially, when occupying Japan, the United States did not want to destabilize Japan or “break the people” further, so many

of the people who held political power or held government positions prior were pardoned. Instead of punishing these lesser officials, the full blame of responsibility for the war was placed on a few people's shoulders—namely wartime general Hideki Tōjō, who was executed for his role in the war. On the other hand, other figures such as Hatoyama and Kishi were pardoned and given positions with US government support. Of course, this served MacArthur's Reverse Course operation, which was intended to break Japan's growing communist and socialist movements and shift the focus of Japan's policy from demilitarization to economic reconstruction and remilitarization (Kapur, 2018). To be clear, the United States was so worried about communism in the East that they were willing to risk reviving fascism in Japan, rather than risk the continuing rise of leftist labor movements.

Following their release after the war, leftists, socialists, and communists renewed their activism, with some even feeling hopeful about the possibility of change in Japan. Their activities resulted in a surge in support for feminist and labor movements in Japan. The labor movements, which included student-led groups and coal miner unions, were at the forefront of the Anpo protests (Kapur, 2018). The Anpo protests were different from other protests and prior activism in Japan because the Anpo protests marked the first time that citizens were able to see the protests and the problem televised. Because of this widespread access to the protests the Japanese people were able to discuss these issues and their relevance for their lives with their neighbors and fellow citizens. Simply put, the antinuclear movement had the full attention of Japan's populace. As a result, there was large mobilization of the Japanese people who called for the dissolution of Anpo and the reevaluation and reformation of the US-Japan relationship. In particular these people demanded a US-Japan relationship that did not hinge on Japan being involved in the United States' wars and its nuclear posturing (Kapur, 2018).

The Anpo protests took place from March 1959 to June 1960 and involved an estimated 30 million people (one-third of the population). These protests were so massive and violent that the United States government canceled a scheduled visit by President Eisenhower, citing security concerns. Yet, despite the widespread protests and unprecedented political involvement, Kishi's government pushed the revisions through the Diet on May 19, 1960. This effort involved taking the speaker of the lower house and having police carry him as if he were a human battering ram in order to deliver the law to be passed amidst protesters (Gordon, 2003, p. 284). As a result of these actions, protests exploded in volume and vigor (a conservative measurement puts this number of participants per day at over 200,000) over the following months. Eventually, Kishi resigned, but the revisions were allowed to remain (Gordon, 2003). Prior to Kishi's resignation, the LDP had been trying to get a two-thirds majority to amend Japan's constitution and remove article 9, but the unpopularity of the revisions and his resignation slowed the unpopular conservative effort and prevented the amendment. However, the idea of amendment has been something that has been continuously brought up by conservative politicians as a goal, even as recently as 2022 (Romei, 2023).

Of course, one of the major concerns for Anpo protesters was that Japan would be dragged into the Cold War as a target for potential nuclear attacks, especially if the US was using their land as a staging ground for nuclear weapons. Reports of the United States keeping nuclear arms in Japan were repeatedly denied by both the Japanese and United States governments for years. However, in 2015, the US government's Interagency Security Classification Appeals Panel (ISCAP) declassified several documents. These papers included a secret agreement in the 1960 security treaty revisions that allowed for storage and transit of nuclear arms on Okinawa (Burr et al., 2016; Masakatsu & Rabson, 2015). During the period of 1954-1972, 19 different



types of nuclear warheads were kept on US military bases in Okinawa in at least four different storage sites around the main island (Masakatsu & Rabson, 2015). On November 19, 1969, the Japanese and United States governments signed another secret agreement, which stipulated the removal of nuclear weapons on Okinawa prior to its reversion to Japan. However, the agreement allowed that the United States would have authorization for “re-entry of nuclear weapons and transit rights in Okinawa with prior consultation with the government of Japan,” (United States Government et al., 2016; Trent, 2019). It also stipulated the possibility of storage of nuclear armaments at the known nuclear storage locations in Okinawa: Kadena, Naha, Henoko, and Nike-Hercules in times of “great emergency” (United States Government et al., 2016; Trent, 2019). This agreement was signed by President Richard Nixon and Prime Minister Eisaku Satō.

The first rounds of Anpo protests were large and ended in violence, which included the death of a university student as a result of police brutality. The US Security Treaty was set to be renewed automatically after ten years and would be considered in effect until either party decided to give a years’ notice before leaving. The Anpo treaty was allowed to renew automatically in 1970 without any comment by Prime Minister Satō, who had signed the secret agreement with Nixon to continue allowing the storage of nuclear armaments in Okinawa (Gordon, 2003). The second round of Anpo protests were not as strong as the first, but they were still large in number. If protestors had known about the storage of nuclear weapons in Okinawa and were aware that United States ships regularly carried nuclear armaments to their ports, how would these protestors have reacted? Would their numbers have been as strong as the first round? Would their protests have been more intense, knowing the number of nuclear near-misses they had almost suffered? There is some speculation that the storage of nuclear weapons was an “open secret” in Okinawa, as protests in 1966 from Iejima residents (an island off the coast of

mainland Okinawa) stopped the deployment and storage of nuclear missiles on their island (Mitchell, 2010; 2012). In 1989, it was shown that the USS Ticonderoga lost an atomic bomb 70 miles off the coast of Iejima in 1965. Surprisingly, the US government did not report this to the Japanese government until 1981 (Mitchell 2012; Masakatsu & Rabson, 2015). The nuclear weapon remains lost at a depth of 16,000 ft. Greenpeace, an environmentalist and antinuclear organization, expressed worries about the possibility of the corrosion of the bomb's protective materials and the subsequent leakage of the nuclear products into the ocean (LA Times, 1989). In addition to having lost a bomb, in 1962 a false fire command was sent to the Kaneda base, calling for the deployment of nuclear missiles (Masakatsu & Rabson, 2015). While the missiles were never deployed, this disturbing incident came after a completely separate accident at Naha Air Base, where an accidental firing deployed but did not detonate an atomic warhead (Masakatsu & Rabson, 2015). Despite being able to take back some aspects of their island from the military bases and prevent bomb storage as a result of their protests, the Okinawans had no say or ability to do anything about the bomb that had been lost at sea, nor did they have any knowledge of or control over the near accidents that might have wiped them off the map.

While this loss of the nuclear weapon was not known until 1981, there is still evidence that there was knowledge of nuclear storage in Okinawa prior to that. It is difficult to discern what role this "open secret" played in discourse, especially during the Anpo protests of the 60s. Okinawan protesters during this time acknowledged the storage of nuclear weapons, but the major Anpo protests in Tokyo outside the Diet building did not. This is incredibly charged as Okinawa, once a part of the Ryukyuan Kingdom, was colonized and annexed by the Japanese in 1879, and Okinawa suffered a secondary colonization by the United States government during and after the Allied Occupation. Actions taken by the Japanese during the Battle of Okinawa

showed there was still anti-Ryukyuan and anti-Okinawan sentiment among the Japanese, and Okinawan protests against US military bases were written off as an “Okinawan issue.” It should be understood here that over two-thirds of US bases in Japan are concentrated in Okinawa (Masakatsu & Rabson, 2015). If mainland Japanese were aware of nuclear storage in Okinawa, not much attention was given to the issue. However, one must ask: if mainland Japanese protestors had known about the storage of these weapons, wouldn't they have discussed it, as nuclear weapons kept on US ships could certainly have been expected to port elsewhere beyond Okinawa?

For his part, Ichiyo points out that the 1960 Anpo revisions and the 1972 Okinawa Reversion shifted more of the weight of US military bases to Okinawa, reducing those on the mainland by two-thirds and doubling the number of Okinawa's bases (2013). It is difficult to write this off as *only* an issue of discrimination. Rather, it is likely that Okinawan concerns and knowledge about nuclear storage at the time were written off as extensions of the anti-base movement from Okinawa and considered *separate* from mainland Japanese antinuclear protests because of this.

### ***Aftermath of ANPO***

Historian Nick Kapur describes three categories of reaction and response to the Anpo protests: 1) conservative counterrevolution (sponsored by LDP politicians), 2) schisms within the original antinuclear movement, and 3) a revolutionary fervor among the younger generation coming of age in the 60s (Kapur, 2018, p. 7). In November 1961, members of the Liberal Democratic Party and the Democratic Socialist Party established the National Council for Peace and Against Nuclear Weapons (*Kakkin Kaigi*) as a result of the anti-treaty stance of the communists and socialists in *Gensuikyō* (DiFilippo, 2006, p. 71). During *Gensuikyō's* 1963

World Conference Against Atomic and Hydrogen Bombs, the socialists of the Japanese antinuclear movement split from the communists and formed their own organization, *Gensuikin*. This was a result of contentions by particular states over the question of partial armament versus total disarmament rose to a boiling point (Gordon, 2003, p. 281). This schism was largely in part to the 1963 Limited Test Ban Treaty signed by the United States, the Soviet Union, and Great Britain. Disagreements over who should have nuclear armaments ensued, as the LDP distinguished between “good” and “bad” nuclear armament holders, while socialists concluded that no nuclear states should exist whatsoever. It is worth noting here that Prime Minister Nobusuke Kishi was a member of the Moral Re-Armament movement in Japan (with ties to the highly controversial Unification Church). This movement argues that it is a state’s “moral duty” to arm themselves in order to “keep the peace,” an ideology conveniently supported by many fascists, including Kishi (Davis & Roberts, 2015, p. 127). While *Kakkin Kaigi* and *Gensuikyō* had fallen prey to the idea that “some” armament might be good, *Gensuikin* did not. Instead, they recognized that no state holding nuclear weapons could claim to care for a populace that it put in danger by the very means of their existence. Even if you ignore the negative environmental effects of pollution and radiation that comes from nuclear energy and nuclear armaments’ creation, as well as the fact that those nuclear armaments are ultimately built to be used to kill people of another country, what about the potential for human error and environmental accidents?

In correspondence between US and Japanese government officials, the Japanese populace’s hatred for nuclear armaments was a concern. This negative popular sentiment was not only significant for future plans for Japanese armament as an US ally in the Cold War—but also because of general fear of political instability like that exhibited during the Anpo protests in

Japan (Kapur, 2018; Ichiyo, 2013). US government funding via the CIA came to the aid of the LDP. The US government bolstered the conservative party as an effort to “break communism” in Japan (Davis & Roberts, 2015, p. 127). Publicly, the LDP and US government worked together to bolster the image of the “peaceful atom” while trying to maneuver in a manner that allowed them to repair the tainted image of nuclear bombs. Despite the governments’ success in crafting the image of the perfect, peaceful atom available to be used for good, clean nuclear energy, the violent memories of the United States’ atomic bombings would continue to fuel popular antinuclear sentiments in Japan.

Prime Minister Eisaku Satō (serving from 1964-1972) offered Three Non-Nuclear Principles (*Hikaku San Gensoku*), an aspect of his Larger Four Nuclear Pillars, which encapsulate the armament aspect of nuclear power concerns that divided the *Gensuikyō*. Satō’s principles were that Japan shall not possess nuclear weapons, manufacture nuclear weapons, or allow the introduction of nuclear weapons into Japan (Akimoto, 2006). These principles are reflected in the 1968 Treaty on the Non-Proliferation of Nuclear Weapons, which was meant to prevent the spread of nuclear weapons, promote disarmament of weapons, and encourage the peaceful uses of nuclear energy (World Nuclear Association, 2023). The split in the antinuclear movement was also visible in Japan’s lobbying in the United States, captured aptly in a 1966 memorandum in regard to the NPT. In this memorandum the lobbyists requested that the NPT not undermine the US-Japan Security Treaty, and that the treaty would not prevent them from approaching other non-nuclear states about the potential for weapons:

“(a) This Treaty does not prejudice the right of non-nuclear states to allow foreign countries to deploy (so-called “introduction”) nuclear weapons in their own countries. (b) This Treaty does not prejudice the right of non-nuclear countries to consult with nuclear states regarding issues such as planning of nuclear strategy plans and deployment and use of nuclear weapons.” (United Nations Bureau, Japanese Foreign Ministry, 1966)

The Satō government understood that the antinuclear movement and sentiment among Japanese citizens was strong and would have severe political consequences if ignored. While publicly supporting the NPT and its goals, the LDP and the Satō government were also covertly supporting Kishi's goal of eventual rearmament. They purposefully tried to ensure that they would have the options for armament open to them in the future (a future they hoped would be without article 9). This is especially visible in the 1966 memorandum, which stipulates that the treaty must have a limited duration, again leaving the door open for changes in the future. While the split in the antinuclear movement may have alienated ordinary citizens, Japanese popular opinion maintained its support for the disarmament of *all* bombs, regardless of state, including the United States and the Soviet Union (DiFilippo, 2006; Hook, 1987). It is clear that the Japanese government had goals that diverged from the will of the larger Japanese populace when it came to nuclear disarmament. It is equally clear that the Japanese government's international efforts were made to appease the antinuclear movement and ensure Japan's continued strategic protection under the United States' nuclear weapons. Even with these considerations, it still took until June 8, 1976 for the Japanese government to ratify the NPT, as several LDP members were frustrated by the provisions that prevented Japanese nuclear armament acquisition (Takeda & Hyung, 2021).

### **Late 1970s to 1990 (Hibakusha in Discourse of Law and Protest)**

The oil crises in the 1970s reinforced concerns over Japan's foreign energy dependence and spurred the government to develop a long-term plan to reduce Japan's dependence on oil and pursue other sources of energy, with a particular emphasis on nuclear power (Cohen et al, 1995). It was these oil crises, coupled with failing coal mines, that led those concerned about Japan's resource-poor economy to lean more heavily on the nuclear village that had been created in

Japan. As demand for utilities in Japan also doubled from 1975 to 1990, the Japanese government worked with the nuclear village to increase the output of existing plants as well as build more nuclear power plants and hydroelectric plants (Cohen et al, 1995). In 1973, only five nuclear plants were operable, with another fourteen under construction. Within five years, eight more plants were under construction. As a result, by 1980, Japan had reduced its foreign oil dependence from 85% to 73% (Gordon, 2003, p. 298).

Of course, building and operating nuclear plants involves the siting of the plant, including environmental surveys, in order to meet regulatory and safety standards set by the International Atomic Energy Agency (IAEA) and Japanese Atomic Energy Agency (JAEA). It should be stated here that in Japan local consent is *not* legally required for the siting and commissioning of a plant. Although there were protesters who did not welcome the local nuclear plants, there were prefectures like Fukushima, which had relied heavily on coal mines before and now accepted their plant as a new means to benefit their economy and livelihood.

It was at this point of rapid expansion of Japan's nuclear energy capabilities that discourse would begin that focused on the aftereffects of radiation on *hibakusha* and the legal ramifications for the Japanese government. At the same time, several nuclear accidents occurred in Japan and around the world. Naturally, these accidents revived concerns first brought about by the Lucky Dragon #5 Incident and once again brought into question the safety of nuclear energy and validity of the government's claims. As these accidents occurred, *hibakusha* continued their call on the Japanese government for help for their ongoing care. This resulted in much of the discourse during this time period concentrating on defining both the *hibakusha* and what reparations (if any) they were owed. In addition, discussion dealt with the perceived safety of nuclear energy and its relationship with *hibakusha*.

### *Defining Hibakusha in Law*

*Hibakusha* as a term has evolved in usage and application. At first, the term was used strictly in reference to medical research dealing with those directly exposed to the bombings, a definition that excluded those who joined immediate relief efforts (Naono, 2019). According to Akiko Naono of the Hiroshima Peace Institute, there were various classifications of those affected by the atomic bombs, and not all of them were referred to as “*hibakusha*.” These classifications were intended to be exclusionary in who could be defined by this term and therefore receive government aid. This relief and legal support for the *hibakusha* was only given because of an immense effort by the *hibakusha* and those caring for them. It was their efforts and the increasing public support for *hibakusha* following the 1954 Lucky Dragon Incident that forced the Japanese government to accept responsibility and pass legislation for *hibakusha* aid (Naono, 2019). In many ways, the law and the *hibakusha* themselves differed on the definition of *hibakusha*. The law was initially extremely strict on who it considered fit the legal definition and was therefore eligible to receive benefits. Officially defined for the first time in the 1957 Law for Health Protection and Medical Treatment for Atomic Explosion Sufferers (also known as the A-bomb Survivors Medical Care Law), *hibakusha* were identified as:

Those in Hiroshima or Nagasaki or in the [defined] surrounding area at the time of the atomic bombs’ dropping, those who entered Hiroshima and Nagasaki to search for relatives or to participate in rescue or relief operations or related activities within two weeks from when the bomb was dropped, those who received radiation through disposal of the dead, rescue work, etc., as well as any person who was *in utero* under any of the above conditions (Hook, 1987, p. 39).

Though this was passed three years after its unfortunate contact with nuclear fallout from the US nuclear tests, Lucky Dragon #5’s twenty-three crew members were not considered *hibakusha* under the law. Ito Takeshi, a *hibakusha* himself, defines *hibakusha* as encompassing more than just the original dead and survivors of the atomic bombings, as *hibakusha* are “[all of]



those harmed by exposure to radiation.” Furthermore, Takeshi also understood clearly that the “possibility of becoming *hibakusha* extends to all of humankind,” but he excluded the leaders who wield this power, or who do not advocate for nuclear disarmament (Hook, 1987, p. 40). Takeshi’s definition and this understanding of *hibakusha* highlights the concerns over potential future radiation that could come from another use of nuclear weapons or from a nuclear accident. Takeshi's definition also places emphasis on the impact of radiation, not just immediately and environmentally, but also its impact on the body and humanity in the long-term.

According to Hiroshima for Global Peace, there have been several laws passed that were focused towards defining *hibakusha* in relation to their access to healthcare and immediate severity of condition (2022). These laws expanded the health care offered from simply treating immediate radiation sickness and wounds to the provision of special allowances and yearly checkups. These improvements in access to health care were thanks to activism from *hibakusha* and groups like *Hidankyō* (Nihon Hidankyō, 2023).

The first amendment to the Atomic Bomb Survivors Medical Care Law was in 1960. It brought about the establishment of the Special Hibakusha System and creation of medical allowances (Hiroshima for Global Peace, 2022b). Two years later in April 1962, the Japanese government further amended the law by expanding the scope of requirements for direct survivors of the A-bomb from a 2km to a 3km radius from Ground Zero. In addition, in April 1965 a health checkup system was created which included biannual health checkups. In October of that same year, those regarded as *hibakusha* expanded from direct bomb survivors to include those who entered the city within three days of the bombing. This was indeed marked progress as it signaled an understanding that radiation persisted beyond the initial impact. In 1968, the Law Concerning Special Measures for Atomic Bomb Survivors established special allowances for

sick survivors, a health management allowance that included seven different classifications of eligible A-bomb survivor illnesses, and a nursing care allowance. In 1969, a provision for funeral expenses passed for special A-bomb victims. Then in 1971, the government expanded the health management allowance payments and reduced the age requirements from 65 to 60 years old. These issues were revisited in 1972, and once again allowance payments were expanded, and the age limit was lowered from 60 to 55. Along with these improvements in benefits, the government expanded the areas designated as A-bombed. Still more expansions of the health management allowance payments came in 1973 and 1974, with raises in health management allowances and lowering of the minimum age requirement from 55 to 50 in 1973 and then to 45 in 1974. These developments allowed younger *hibakusha* to receive the daily care they needed for survival (Hiroshima for Global Peace, 2022b).

It should be noted that 1974 is a particularly important year for *hibakusha* healthcare. In 1974, the laws became more inclusive. Now the laws addressed the removal of disability and income requirements for care, recognition and inclusion of more after-effect illnesses, such as respiratory dysfunction from breathing fallout particulate, as well as total coverage of medical expenses incurred by general illnesses for all A-bomb survivors (Hiroshima for Global Peace, 2022b). The laws also expanded the definition of *hibakusha* and removed the classifications of special and general survivors, expanding the options for care for the previously excluded survivors. Eligibility for the various allowances opened up, expanding from Special A-Bomb survivors to all A-Bomb survivors. Unfortunately, while these allowance and healthcare expansions to the Atomic Bomb Medical Care Law were made, overseas *hibakusha* were still excluded from payments and access to care.

Expansions in 1975, 1976, and 1978 extended the definition of *hibakusha* to include survivors up to 6km from the hypocenter, created a family care allowance, and added more clinics for checkups for survivors. However, none of these new clinics were opened in Okinawa at this time, despite the fact that many survivors from Okinawa returned to the island and had no ability to access care.

Further amendments to the law during the period of 1980-1991 were mostly in regard to *hibakusha* medical access and allowance payments, including a ¥98,000 per month special medical allowance, a ¥33,600 per month atomic bomb microcephaly allowance, a ¥24,000 per month health allowance in 1981, free cancer screenings for all *hibakusha* in 1988, and loosened restrictions on income for receiving allowances (Ministry of Health, Labor, and Welfare, 2023). These allowances and the recognition and inclusion of the various stages of disability and types of atomic bomb survivors extended care to those who needed it most. Of course, this was only achieved as a result of much lobbying and protesting for better care and demands by the populace that the Japanese government take responsibility for helping the *hibakusha* (Nihon Hidankyō, 2023).

In 1995, the Atomic Bomb Survivors' Support Law was enacted. This law combined the A-Bomb Survivors Medical Care and the A-Bomb Survivors Special Measures Laws (Hiroshima For Global Peace, 2022b). Without doubt, this law was an important landmark in the *hibakusha*'s struggle, as the law states that the Japanese government should assume the responsibility of care for *hibakusha* in various manners including health and welfare (Hiroshima for Global Peace, 2022b). More funeral benefits and the elimination of income restrictions also widened the scope of *hibakusha* that were and are able to claim the legal status and benefits from their traumatic experiences. In April 2002, 12km from Nagasaki's hypocenter was considered within the special

area limits, and more special health check zones were added. The Atomic Bomb Survivors' Support Law was further amended in 2003, when the government also removed deadlines for receiving benefits, making the health allowances a permanent payment system (Hiroshima for Global Peace, 2022; Naono, 2019).

Even with all the progress discussed here, the issue of identifying who fits the *hibakusha* definition was not immediately solved with the Atomic Bomb Survivors' Support Law or its amendments. Others who had suffered just like the *hibakusha* were left out. For example, Korean *hibakusha* and those who did not stay in Japan struggled to receive their benefits, which culminated in the Overseas *Hibakusha* Case. In 2007, the Supreme Court of Japan ruled that the Japanese government was illegally keeping benefits from *hibakusha* living abroad, and the Court decided that the government must give their benefits to them (Supreme Court of Japan, 2007). Up until this point, overseas and Okinawan *hibakusha* struggled to receive their benefits, though they were eligible and deserving of those benefits because of their experiences. Even up until recent times, overseas *hibakusha* have struggled to receive benefits. Some projects, such as Takashi Ito's 2021 *Hiroshima Pyongyang*, highlight how Koreans, particularly North Korean *hibakusha*, are left without support (Kishi, 2021). Despite court rulings and the Japanese government's own acknowledgement of responsibility for care, there are still many *hibakusha* who slip between the bureaucratic cracks, left without access to the specialized care they need.

### ***Nuclear Accidents and Civic Anxiety***

As a result of a series of nuclear crises around the world, including the Mutsu Nuclear Ship Mishap (1974), Three Mile Island (1979), Chernobyl (1986), and Tokaimura Criticality Accident (1999), public perception of nuclear energy and its safety began slipping. It was Chernobyl that created new opposition to nuclear power. This disaster in particular made the

antinuclear movement more accessible to groups outside of ‘not in my backyard’ (NIMBYs) protestors and opposition groups for the first time since the split in the antinuclear movement back in 1963. It was not just normal citizens, but also local governments and media that opposed or had reservations about the safety of nuclear energy after Chernobyl. As a result, there were demonstrations of 20,000 or more in April 1988 (Dauvergne, 1993, p. 579-580).

The 1990s saw a significant increase in civic participation in Japan. Much of this activity came from grassroots organizations protesting and interacting directly with local governments to challenge and produce votes against nuclear power-related issues and edicts from the central government (Kotler & Hillman, 2000). A reported 944 protests against nuclear and toxic pollution were held in Japan by 717 groups from 1990 to 1997, including several township referendums that rejected the construction of nuclear power plants nearby (Kotler & Hillman, 2000).

Immediately following the Chernobyl accident in Ukraine in April 1986, for the first time in two decades since the first reactor was built in Japan in 1966, public opinion showed that more people opposed nuclear power than supported it (Dauvergne, 1993). Despite this, the majority of opinion polls throughout the 1980s and 1990s showed that: “1) a majority of Japanese found Japan’s nuclear power plants ‘safe’ or ‘somewhat safe’ and 2) a large majority of those who supported development of nuclear power believed that nuclear power was the key to energy independence.” This overall acquiescence is reflected in the fact that 50 nuclear plants were built (or were in the process of being built) during that time (Kotler & Hillman, 2000). Why?

After public outcry dies down, those against nuclear energy were either not constituents of the LDP already (and therefore meaningless to the LDP, as these protestors couldn’t take away their vote) or were paid off through financial rewards and compensation (i.e., pork barrel

politics) (Cohen, 1995). Little attention was given to the legitimacy of the general populace's concerns about safety, which were dismissed as illegitimate, irrational, and a "short-term, selfish economic anxiety," (Kotler & Hillman, 2000, p. 6-8). Public relations projects funded in response by the Ministry of International Trade and Industry (MITI), the Tokyo Electric Power Company (TEPCO), and the Science and Technology Agency (STA) were aimed at easing concerns and creating a feeling of safety and public acceptance. All told, the Japanese government spent \$4 billion in 1990 towards this cause (Dauvergne, 1993). The protestors' concerns were waved aside by promises of stricter safety regulations, yet accidents of the same type kept happening within Japan, likely because of the pervasive belief of nuclear power's safety. These incidents would be cited in the protests following the Fukushima Daiichi Nuclear Plant Meltdown, as TEPCO had ignored several safety warnings and failed stress tests prior to the earthquake and tsunami on March 11, 2011 (Dauvergne, 1993; Wang et al., 2013; World Nuclear Association, 2022). In fact, the meltdown at Fukushima's Daiichi reactors was not the *first* nuclear accident its residents had to protest.

In 1978, the Fukushima Daiichi reactor malfunctioned, causing a leak of radioactive substances that resulted in high levels of radiation in the immediate vicinity of the plant. The reactor nearly reached criticality after triggering a chain reaction, which could have triggered a disaster larger than the 3/11 meltdown. The same reactor suffered yet another accident in 1989, when the water-cooling system broke. This break leaked nuclear particles into the atmosphere (Dauvergne, 1993; Nakamura & Kikuchi, 2011). These two incidents increased public concern for the safety of nuclear energy, and the antinuclear movement continued to create a framework of protest activities that would eventually shape the post-3/11 activism in Fukushima.

## Disaster Shapes Discourse

It was not only occupational authorities' influence or the decisions of the government that affected nuclear policy. Antinuclear discourse and protest have also helped to drive the Japanese government to create policy that addresses *hibakusha* needs and helped to implement policy in relation to the current and potential nuclear disaster(s). Nuclear discourse has evolved over the last eight decades as questions of war memory, responsibility, subjectivity, security, energy, and climate change bring new concerns to the forefront. While Japan has a great need for energy and geopolitical security, concerns about nuclear energy's impact on the environment and the potential for disasters continues to fuel dissent even as discourse topics change. However, despite the changes, over the years two constant variables remain the same and are linked in discourse—radiation and *hibakusha*. As Glenn D. Hook notes in the various stages or “evolutions” of nuclear discourse, radiation serves as the link between the *hibakusha* and the bomb, the *hibakusha* and the aggressor, and eventually it serves as the link between victims and aggressors. Fukushima marks an actualization of that decades-old fear of future radiation or nuclear disasters and reveals reality and not simply the potentiality of more *hibakusha* being created. The Fukushima tragedy not only builds on prior discourse but expands it to include climate disasters on the list of man-made and preventable disasters.

It should be noted that by 2011, much of the protest and discourse surrounding nuclear issues was out of concern and outrage for the bodies of the victims and that environment that suffered the resultant radiation. *Hibakusha* demands for reparations revolve around their bodies, especially as exposure and the trauma from the experiences require long-term healthcare. As can be understood from the review of our previous discussion, much of the antinuclear protest up to this point has been focused on preventing nuclear nonproliferation. Simply stated, it is related to

nuclear weapons. *Hibakusha* in Hiroshima recognized the potential dangers of nuclear energy, based on both their experiences of having been a military target and because of their fears of possible future exposure to radiation from living near a nuclear power plant. Nevertheless, many local governments in Japan enthusiastically pursued nuclear energy during this time. The Japanese media and government messaging overwhelmingly advocated pro-peaceful atom discourse, and local governments saw nuclear power as a way to create industries and bolster economies in their cities. The fact that the majority of the protest efforts were aimed at nuclear weapons rather than nuclear energy suggests the “ideological bifurcation” between atomic weapons and atomic power. One was presented as “evil” and the other was designated for “peaceful” purposes (Ichiyo, 2013; Jones et al, 2013). The argument given for the “peaceful use” of nuclear energy by Japan was the “precisely because” reasoning. This line of thought argues that Japan’s special status as “nuclear victims” made them the most fitting harbingers of the peaceful use of nuclear energy (Ichiyo, 2013).

It was easy for this ideological bifurcation to occur for most citizens of Japan who were not directly impacted by the plants or the small-scale accidents that had occurred up to this point in history. Because of this distance, discourse tended to revolve around nuclear weapons and their usage, because most Japanese people’s experiences of or opinions about nuclear disaster were associated with disasters caused by weapons.

Of course, previous public relations efforts by the United States and the Japanese governments, coupled with a desire for energy security, helped to shape public opinion to help nuclear energy be perceived as safe. International nuclear accidents had shaken this perception for some. However, in general, these incidents were considered “separate” from Japanese nuclear energy. Instead, Japanese nuclear power was considered “safer,” a perception Prime Minister



Naoto Kan, who dealt with the Fukushima crisis, would cite as a major problem impacting both the TEPCO leadership and the quality of their emergency preparedness (Kan, 2017).

### Chapter 3: Fallout from Fukushima

This chapter examines the time period following Hook's defined discourse stages. Briefly stated, I propose that there are two additional stages that can be situated in between Hook's defined timeline and the current year 2023. The first takes place between 1990-2010. It encompasses protests focused on the needs of overseas *hibakusha* and those *hibakusha* who had been unable to receive access to the benefits they deserved. Discourse during this time was also centered around the nonproliferation of nuclear weapons and bringing up the next generation to work for peace, through educational programs and emphasis on peace museums outreach. I myself grew up during this post-Cold War period and experienced some of these educational outreach programs. It was during this period that Japan engaged more in international disarmament talks, including hosting several UN General Assemblies on nuclear disarmament and nonproliferation. Differences in method and intensity of pushing for desired regulations between the government and antinuclear groups as well as the government's reliance on U.S. nuclear deterrence characterize the period's nuclear discourse.

While protests against nuclear energy certainly took place during this period, the majority of the general populace supported nuclear energy, and nuclear policy and investment at the time reflect this. However, a series of accidents brought about the creation of several regulatory laws, each focused on safety and disaster response. These laws were the precursors to post-Fukushima disaster preparedness laws and served as the framework for then-Prime Minister Kan's handling of the Fukushima disaster's initial months.

The second period I am proposing takes place between 2011 to 2023, beginning with the March 11, 2011 triple disaster. This period itself could be broken down into smaller stages that correspond with various factors: government relief efforts, classification of those who receive

relief assistance (in regard to Fukushima and connecting to *hibakusha*), cleanup of the plant and radioactive waste, and efforts to bring people back to the areas with less radiation. However, the truth is that each of these stages in the response to the disaster are only parts of the whole, aspects of a complete shift in Japanese society and how it views nuclear energy. It was the 3/11 meltdowns in Fukushima that caused Japan's "nuclear safety" myth to shatter in the psyche of the Japanese people. Protests and public outrage because of mismanagement led to major changes in disaster response policy and nuclear energy regulatory policy.

The end of the 2011-2023 period is marked by the Japan Times' public opinion poll in which Japanese citizens voted 53% in favor of restarting nuclear energy, in response to the global energy crisis caused by the Russia-Ukraine war and subsequent rising demands for energy (Japan Times, 2022).

### **1990-2010 (Peace and Disarmament)**

This period was typified by Cold War worries of the *potential* use of nuclear weapons, even after the war's official end in December 1991. During these years a series of accidents at nuclear plants around Japan created concerns about the safety of nuclear energy and the reliability of the nuclear regulatory offices in Japan. While there were concerns and protests against both nuclear weapons and nuclear energy, the majority of protests during this time still focused on nuclear weapons, their aftereffects, and the *hibakusha* living with these effects. There were significant changes made to *hibakusha*-related policy due to these protests, and Japanese international antinuclear weapons and peace initiatives involving museums and schools were begun in earnest. This was an extension of the peace education movement that began with the founding of the Hiroshima Peace Memorial Museum in 1955, which gained momentum through this period, spurred on by post-Cold War hope for real and lasting international peace.

Japan's nuclear disarmament policy and ongoing diplomacy around this period was centered around the Comprehensive Nuclear Test Ban Treaty. Despite several accidents including the 1999 nuclear accident in Tokaimura, Japan's pursuit of nuclear energy flourished during this period. Nuclear energy was considered a way to protect the environment, to reduce greenhouse gas emissions, and to stabilize Japan's energy security (International Atomic Energy Agency [IAEA], 2020). While there is significant research and scholarship about immediate postwar antinuclear protest, there are gaps in the research for this period.

### ***Expansions to Hibakusha-Related Law***

There were several changes to legislation related to *hibakusha* in the period between 1990 and 2010, with expansions made to healthcare access and coverage. In 1991, expansions made to the Atomic Bomb Medical Care Law included less discriminatory income restrictions on allowances and increases of those same allowances, including monthly long-term care allowances, which were increased from ¥40,500 yen to ¥94,500 yen. The disability period was also increased from three years to five years, with the renewal deadline of three years, which allowed for more time to pass in between required reapplication for bombing-related disability benefits (Ministry of Health, Labour, and Welfare, 2023).

Yet despite these amendments to the Atomic Bomb Medical Care Law, they were not enough to cover all the health and care needs of the *hibakusha*. This prompted the passing of the 1995 Atomic Bomb Survivors' Support Law (or Act on Aid for Atomic Bomb Survivors), which combined and repealed the 1957 Atomic Bomb Survivors Medical Care and the 1968 Atomic Bomb Survivors Special Measures Laws (Hiroshima for Global Peace, 2022b).

The Atomic Bomb Survivors' Support Law was especially important for several reasons, but particularly for what it establishes. In the law's preamble, it recognizes the Japanese

government's responsibility to care for atomic bombing victims and to advocate for the abolishment of nuclear weapons, stating:

On this occasion of the fiftieth anniversary of the atomic bombing, we enact this law under the responsibility of the state, reaffirming our determination to work toward the ultimate abolition of nuclear weapons, praying for lasting peace so that the horrors of the atomic bombing will never be repeated, and taking comprehensive measures for health, medical care and welfare of the aging atomic bomb survivors, in light of the fact that the health damage caused by radiation resulting from the atomic bombings is a unique kind of damage different from any other war damage, and remembering, as the state, the sacrifice of precious human lives by the victims of the atomic bombings (Yamada et al., 2023).

This paragraph establishes responsibility for *hibakusha* care and refers to the atomic bomb victims as "sacrifices." In so doing, it follows Hook's established discourse point of defining *hibakusha* as sacrifices necessary for saving lives and for joining the rest of the world. According to Hook, these victims were sacrifices made in the name of Japan. Because of this Japan has the responsibility to care for the remaining survivors. As part of its provisions for the welfare of the survivors, this law also established special funerary benefits and eliminated income restrictions on payments for health allowances. In addition to acknowledging the necessity of caring for the *hibakusha*, there is also another declaration of Japan's role in advocating for the abolition of nuclear weapons. The state's duty in this regard is further reinforced by the law with Article 41, "*Peace Memorial Projects*," which indicates Japan's intention to participate in and create projects aimed at fostering peace and remembering the victims of the atomic bombs (Yamada et al., 2023).

The Atomic Bomb Survivors' Support Law continued to utilize prior legal designations of *hibakusha* and the qualification of benefits based on distance to the bombing (both in distance and time, as the designation also included people present after the bombing and *in utero*). The law also established medical zones and health offices to care for *hibakusha*. However, in 2002, adjustments were made to these zones (Yamada et al., 2023; Hiroshima for Global Peace,

2022b). Similarly, in 2003, an amendment was made to abolish time period caps on medical allowances. Instead, the amendment permitted medical allowances to persist as long as the issues persist, and the treatment is needed (with a few exceptions). These changes were made to make receiving benefits easier for atomic bomb-affected people. Yet there were those who were still excluded from benefits or even excluded from the legal definition of *hibakusha* itself.

In particular, Korean *hibakusha* and those who did not stay in Japan struggled to receive their benefits. Their struggles culminated in the Overseas Hibakusha Case. In 2007, two years after the Hiroshima High Court came to the same finding, the Supreme Court of Japan ruled that the Japanese government was illegally keeping benefits from *hibakusha* living abroad, and the Court decided that the government must give these benefits to them (Supreme Court of Japan, 2007). As a result of this ruling, in 2008, overseas residents and Korean *hibakusha* were able to apply for the Health Handbooks for Atomic Bomb Survivors, allowing them to receive benefits (Hiroshima for Global Peace, 2022b).

While no more laws or amendments have been passed for *hibakusha* since 2008, there have been a few court cases that have allowed for more people to be considered as belonging to the legal definition of *hibakusha* and therefore be eligible to receive benefits. As noted previously, the 2007 Supreme Court ruling made it possible for overseas and Korean *hibakusha* to get handbooks and access to benefits. However, there were still many *hibakusha* who have been excluded in some way by the strict scientific and/or legal aspects of the qualifications and are unable to receive benefits. In 2015, the Supreme Court of Japan recognized more South Korean overseas *hibakusha* and ordered the Japanese government to give them access to their benefits and payments (Osaki, 2015). Likewise, the Hiroshima High Court ruled in 2021 that the government of Japan needed to award full state *hibakusha* benefits to 84 black rain *hibakusha*

(Johnston, 2021). These people had been affected by black rain that fell outside of zones previously established. Because their exposure happened outside the prescribed zones before the High Court ruling, they had technically not been considered *hibakusha* under the law.

New findings about the range of the fallout and the scale of potentially affected people have spurred further government investigations into what zones of the cities the black rain fell. The results of these investigations could expand the definition of *hibakusha* still further. However, it is far from certain that the scope of those considered *hibakusha* will continue to expand. For example, in 2023 the Hiroshima High Court dismissed a damages claim made from children of *hibakusha*, denying them both benefits and the legal distinction of *hibakusha* (Kyodo, 2023). Despite having health problems potentially related to the atomic bombings from *hibakusha* parents, they are excluded from the *hibakusha* definition.

### ***Peace Education and the Role of Ideological State Apparatuses***

Peace education began in Japan following the war. However, it wasn't until the establishment of the Hiroshima Peace Memorial Museum in 1955 that peace education touched on the role of nuclear weapons specifically, rather than just addressing war in general. Prior to that point, peace education had been focused on erasing Japanese nationalism from schools and textbooks, but in the wake of the establishment of the peace museums, discussion of Japanese victimhood as a result of the atomic bombings also began to surface regularly. It was this discussion that spurred antinuclear and peace groups' efforts in the 1980s to change the narrative around the war and Japan's "victim" status. Instead, these antinuclear and peace groups sought to spotlight Japan's role as a victimizer and as an active participant in the war and not simply as a passive victim of the bombings (Ishikida, 2005; Hiroshima for Global Peace, 2022a). This shift

in the discourse promulgated by the antinuclear and peace groups was not necessarily reflected in Japanese government policy or rhetoric. In fact, the Japanese government continued to refer to the people who died in the atomic bombings as ‘sacrifices,’ and ‘victims,’ which in many ways othered the Japanese government from responsibility.

This aversion to accepting responsibility can be expressly demonstrated with a review of Article 14 of the 1995 Atomic Bomb Survivors’ Support Law. It reaffirms Japan’s commitment to memorializing the lives lost in the atomic bombings, as well as to educating others so that its tragedy will not be repeated. Further, it speaks of sacrifices and victims and of the horror of the bombings, but it fails to mention Japan’s hand in bringing about the war itself:

In order to remember the sacrifice of precious human lives by the victims of the atomic bombing of Hiroshima and Nagasaki and to pray for a lasting peace, the Government of Japan shall undertake projects to deepen the public’s understanding of the horrors of the atomic bombing, to pass on their experiences to future generations, and to commemorate the victims of the atomic bombing (Yamada et al., 2023).

Yet, the Atomic Bomb Survivors’ Support Law does not reflect all that was going on in this period. Here we should note that the Atomic Bomb Survivors’ Support Law, which was passed on December 1, 1994, had come into effect only a few short months after then-Prime Minister Tomiichi Murayama’s statement on the Peace, Friendship, and Exchange Initiative on August 31, 1994. Of course, Murayama’s statement, which will be discussed below, was groundbreaking in that it represented a crucially important public moment in which the Japanese government took responsibility for their actions in the war.

In fact, a year prior to the 50th anniversary of the atomic bombings, Prime Minister Murayama was already taking initiatives to memorialize these events that involved public expressions of apology and responsibility. For example, in a speech following a diplomatic tour



of South Korea and Southeast Asian countries, Murayama announced the Peace, Friendship, and Exchange Initiative, while also expressing apology for the war:

Japan's actions in a certain period of the past not only claimed numerous victims here in Japan but also left the peoples of neighboring Asia and elsewhere with scars that are painful even today. I am thus taking this opportunity to state my belief, based on my profound remorse for these acts of aggression, colonial rule, and the like caused such unbearable suffering and sorrow for so many people, that Japan's future path should be one of making every effort to build world peace in line with my no-war commitment. It is imperative for us Japanese to look squarely to our history with the peoples of neighboring Asia and elsewhere. Only with solid basis of mutual understanding and confidence that can be build through overcoming the pain on both sides, can we and the peoples of neighboring countries together clear up the future of Asia-Pacific... (Murayama, 1994).

As part of the speech, Murayama listed plans for moving forward, including creating an accurate and well-rounded historical archive and initiating exchange programs, including the Peace, Friendship, and Exchange Initiative itself (Murayama, 1994). This initiative focused on research, education, and exchange between Japan and neighboring countries in East and Southeast Asia, which marked an international focus in Japan's effort to foster historical research, peace education, and cultural exchange (Ministry of Foreign Affairs of Japan, 2023). A year later on the 50<sup>th</sup> anniversary, Murayama further expressed apology in an even more dramatic and heartfelt fashion. In the speech, he unequivocally states the Japanese government's responsibility to acknowledge the harm they caused while working towards peace and nuclear disarmament:

During a certain period in the not-too-distant past, Japan, following a mistaken national policy, advanced along the road to war, only to ensnare the Japanese people in a fateful crisis, and, through its colonial rule and aggression, caused tremendous damage and suffering to the people of many countries, particularly to those of Asian nations. In the hope that no such mistake be made in the future, I regard, in a spirit of humility, these irrefutable facts of history, and

express here once again my feelings of deep remorse and state my heartfelt apology. Allow me also to express my feelings of profound mourning for all victims, both at home and abroad, of that history.

Building from our deep remorse on this occasion of the 50th anniversary of the end of the war, Japan must eliminate self-righteous nationalism, promote international coordination as a responsible member of the international community and, thereby, advance the principles of peace and democracy. At the same time, as the only country to have experienced the devastation of atomic bombing, Japan, with a view to the ultimate elimination of nuclear weapons, must actively strive to further global disarmament in areas such as the strengthening of the nuclear non-proliferation regime. It is my conviction that in this way alone can Japan atone for its past and lay to rest the spirits of those who perished (Murayama, 1995).

Shortly following this declaration of intention to bolster peace education and advocacy, Japan joined international efforts and created organizations with these goals in mind. During the 2000 General Assembly of the United Nations, the International Decade for a Culture of Peace and Non-Violence for the Children of the World was established for the time period of 2001-2010. There were a significant number of organizations funded for the pursuit of peace during this decade, including Japanese Society for Developing the Culture of Peace, Culture of Peace News Network, and Global Campaign for Peace Education Japan (The Japanese Society for Developing the Culture of Peace, 2010).

According to the midterm report written by the Japanese Society for Developing the Culture of Peace, one of Japan's expressed goals for their actions through participating in this international event was "to promote general and complete disarmament under strict and effective international control," which they state means more than "a situation without wars," and includes the accurate teaching of historical issues, particularly about nuclear weapons, World War II, and what happened to Hiroshima and Nagasaki (The Japanese Society for Developing the Culture of Peace, 2005).

The Japanese government has had two main methods of dispensing this peace education: through peace museums and international exchange programs. Many of the peace museums in Japan, most notably the Hiroshima Peace Memorial Museum and Nagasaki Atomic Bomb Museum, are sponsored by the Japanese government and host exhibits curated using government funding (Anzai, 2007). These museums and educational programs function as state ideological apparatuses, which allow the government to dictate the moral and ethical ideals for the populace through these cultural institutions' outreach programs.

In addition to the content of the museums, the projects and programs they fund also participate in or facilitate international exchange programs with the goal of creating deeper intercultural understanding and relationships. These projects span various grades and ages, but all focus on the same goal—educating students on peace, often through nuclear disarmament. Plenty of these projects use art as a universal medium for allowing students to express their thoughts and feelings on peace. These peace museums and the international exchange programs are critical to fostering the “peace culture” that the UN and Japanese government have been trying to create.

The Hiroshima Peace Memorial Museum is an especially important aspect of fostering this culture, as it works directly with the Hiroshima Prefectural government and national government to memorialize August 6, 1945 and associate it with the pursuit of peace. As we discussed before, the Atoms for Peace exhibit hosted at the Hiroshima Peace Museum was one example of the museum being used to disseminate information on behalf of the government. Separating the peaceful use of nuclear energy and the violent use of nuclear weapons was not the only ideological element that benefited the Japanese government. In fact, a major critique of Japanese peace museums and a continuing theme in postwar discourse is the Japanese victim's

perspective, which is often emphasized in these museums, usually as a result of omitting a corresponding discussion of Japanese Imperial Army wartime actions (Anzai, 2007).

The Hiroshima Peace Memorial Museum itself relies on the teaching of the events and horrors of the bombings, as well as on the personal story of Sasaki Sadako's endeavor to fold a thousand paper cranes with the hope of being cured of her atomic bomb-caused leukemia. The novelized version of Sadako's crane-folding and subsequent death is most known through Eleanor Coerr's *Sadako and the Thousand Paper Cranes*. Coerr's novelization of Sadako's life, diagnosis, and artistic endeavor has been used in many classrooms to teach about the effects of war and to advocate for peace. The book is still used in many elementary schools and many of the exercises are built for students to work collaboratively on peace-themed projects, namely the folding of a thousand paper cranes and creation of "peace murals" (Anderson, 1997). In fact, when I was in the third grade (2004-2005), I participated in one of these projects by reading Coerr's novelization and making art and origami cranes with wishes of peace on them, which were sent to Hiroshima's Peace Memorial Museum.

Many of the international exchange programs aimed towards education about peace and nuclear disarmament use art as a medium of cultural exchange, particularly in their use of the image of the paper crane and Sadako's story. One such government program was *Art Japan's* International Guernica Children's Peace Mural Project. This program was started on the 50<sup>th</sup> anniversary of the end of World War II as an exchange project funded through the Japan-U.S. Friendship Commission. It involved Japanese and American school children painting murals for peace (Anderson, 1997; 2000). In addition, groups of children all over the world created murals the size of Picasso's *Guernica*, as calls for peace and symbols of unified collaboration.

Throughout various murals, the image of the crane is present, almost as often as the image of the dove, another symbol of peace.

These programs and museums are meant to not only foster peace and international goodwill but also to memorialize the dead, those affected by the atomic bombs, and the potential victim's perspective. These peace initiatives were made in tandem with several efforts by the Japanese government to participate in international disarmament and nonproliferation efforts.

### ***Nuclear Disarmament in Response to Growing Peace Education***

The period of 1990-2010 not only saw an increase in peace and antinuclear disarmament education, but also an increase in efforts from antinuclear organizations and the Japanese government to encourage international cooperation toward nuclear nonproliferation and disarmament. While the Japanese government and antinuclear organizations such as Gensuikyō and Hidankyō had the same goal of nuclear disarmament, their approaches to these issues and speed at which measures were taken were frequently a point of contention. An example of this would be the Japanese government's hesitation to criticize the U.S. in nonproliferation and disarmament matters (DiFilippo, 2006). In this case, Japan's benefitting from the U.S. nuclear umbrella was seen by antinuclear groups as contradictory to their outward efforts towards nuclear disarmament.

There are a number of important moments where the Japanese government clearly took aggressively proactive steps to address nuclear disarmament. For example, from 1994 to 1999, Japan submitted several draft resolutions to the United Nations General Assembly on Nuclear Disarmament. Then in 2000, Japan submitted a resolution titled, *A Path to the Total Elimination of Nuclear Weapons*, that called for reductions in non-strategic nuclear weapons from weapon states such as the United States and Russia (Toki, 2005). At the third U.N. Hiroshima

Conference on Disarmament Issues in 1996, then-Foreign Minister Yukihiko Ikeda urged other countries to come to an agreement on the text for the Comprehensive Nuclear Test Ban Treaty (CTBT) and to work quickly in implementing the treaty. He also urged other countries to consider the “Cut-Off Treaty,” which would prohibit the production of fissile materials for nuclear weapons and voiced support for the Strategic Arms Reduction Treaty II (START II) (Ministry of Foreign Affairs of Japan, 1996). In fact, Japan ratified the CTBT in 1997, and in a report released from the 1999 Tokyo Forum for Nuclear Non-Proliferation and Disarmament, Japan urged the governments of the United States, Russia, China, India, Pakistan, North Korea, and Israel to ratify the CTBT as well as to expand nuclear reductions through START II (Tokyo Forum for Nuclear Non-Proliferation and Disarmament, 1999). Furthermore, in 2010, Japan began a program called “Special Communicators for a World Without Nuclear Weapons,” which worked with *hibakusha* to educate people about peace and nuclear nonproliferation ideals (Ministry of Foreign Affairs of Japan, 2012a).

Meanwhile, grassroots antinuclear organizations were also hard at work. For example, the Appeal from Hiroshima and Nagasaki for a Total Ban and Elimination of Nuclear Weapons achieved more than 62 million signatures from 1985 to January 2001, showing there was still a strong antinuclear weapons sentiment in Japan (DiFilippo, 2006). In addition, the city of Nagasaki sent 547 letters of protest to countries involved in nuclear testing between 1970 and 2002, and the city of Hiroshima was also involved in sending letters of protest against nuclear testing and nuclear weapons development (DiFilippo, 2006). Likewise, *Hidankyō* and *Gensuikyō* were also quick to protest against U.S. and U.K. subcritical nuclear testing in 1998 and 2002, as well as to condemn nuclear tests by India and Pakistan in 1998 (DiFilippo, 2006).

On the other hand, at the national level the Japanese government's failure to join the New Agenda Coalition during the 2000 NPT Review Conference and the failed 2005 NPT Review Conference are cited as moments where Japan lost diplomatic opportunities to lead in disarmament because of their too-cautious approach (Toki, 2005; DiFilippo, 2006). Likewise, the 2010 National Defense Program Guidelines (NDPG) maintained Japan's role in international nuclear nonproliferation and disarmament and reinforced commitment to U.S. extended deterrence (Nuclear Threat Initiative, 2018).

While the Japanese government was outwardly making efforts towards nuclear disarmament, antinuclear groups argued that the Japanese government was not acting promptly enough in accordance with the general public's wishes. DiFilippo notes that Japanese antinuclear organizations wanted the Three Non-Nuclear Principles (i.e., that Japan shall not possess nuclear weapons, manufacture nuclear weapons, or allow the introduction of nuclear weapons into Japan) made into law, but Japanese lawmakers considered the national policy enough for showing Japan's commitment to disarmament. The lawmakers worried that making the Three Non-nuclear Principles law would complicate their policy with the United States of neither confirming nor denying the presence of nuclear weapons. In general, this demonstrates the Japanese government's perspective that incremental changes are enough by themselves, and that they don't want to push too far in situations that affect the U.S. and their nuclear deterrence for Japan.

The Japanese lawmakers' perspective had been reinforced in 1995 when the Japanese Defense Agency (JDA) conducted a study on the possibility of Japan developing a nuclear weapons program. This study concluded that obtaining nuclear weapons would only increase Japanese security risks (Toki, 2005). This study made it clear to the Japanese government that

the U.S. extended deterrence and advocating for nuclear nonproliferation and disarmament in the region would be their best options for maintaining national security.

### ***Nuclear Energy Laws in Response to Nuclear Accidents and Scandal***

In 1999, two nuclear accidents occurred in Japan, helping to provide the impetus for new laws for nuclear safety regulation and disaster response. The first accident occurred in Ishikawa prefecture and caused an uncontrolled sustained reaction. The second accident, which occurred at Japan Nuclear Fuel Conversion Company's (JCO) fuel fabrication plant in Tokaimura, Ibaraki Prefecture. This situation reached criticality and resulted in the death of two plant workers and the exposure of hundreds of emergency response workers, as well as residents of Tokaimura. According to nuclear research scientist James Mahaffey, this accident occurred as a result of an incompatibility between the plant's licensed conversion operations and the design of the dissolver tank they were using to make highly enriched uranyl nitrate. Because of the poor design of the tanks, the operators had to mix the solution in a bucket and pour it into the tank. This caused an accidental criticality in the tank, creating a reactor from the chain reaction that resulted in massive amounts of radiation being released into the surrounding area (2015, p. 272-277). Mahaffey attributes the accident to JCO and Japanese government *hubris*. Their absolute belief in their own safety led to them having no accident contingency plans, no review of work procedures, minimal (if any) training for workers, and poor equipment layout (p. 277). The lack of training was an especially important factor, as the operators' poor understanding of what leads to criticality led to their attempted solution and subsequent accident. The accident was rated a 4 (on a scale of 0 to 7) on the International Atomic Energy Agency's International Nuclear and Radiological Event Scale (Fujimoto, 1999).



The 1999 nuclear accidents led to the creation of two laws concerning nuclear energy: 1) the Act on Special Measures Concerning Nuclear Emergency Preparedness (or Nuclear Emergency Act) and 2) the National Research and Development Agency Act on the National Institute for Quantum Science and Technology. The Nuclear Emergency Act is a law that is intended to be implemented in conjunction with several previous laws, including the Basic Act on Disaster Control Measures (Act No. 223 of 1961) and the Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors (Act No. 166 of 1957). The Nuclear Emergency Act defines nuclear disaster as the “damage caused to the lives, bodies, or properties of citizens due to a nuclear emergency,” and defines nuclear emergency as a “situation in which radioactive materials or radiation at an unusual level has been released outside the Nuclear Facility Site of a Nuclear Licensee.” Further, the Nuclear Emergency Act establishes the right and responsibility to create a Nuclear Emergency Response Headquarters, grants authority to the Prime Minister and Nuclear Regulatory Authority (NRA) during a crisis to direct the Nuclear Licensee in disaster response measures and establishes the State’s responsibility in managing a nuclear disaster caused by terrorism or natural disaster. This law assigns responsibility to the State for implementation of nuclear disaster prevention measures, emergency response measures, and post-disaster measures through cooperation with state and local governments and the nuclear licensees. It is also important to note that the Nuclear Emergency Act also established the obligation of the Nuclear Licensee to create emergency preparedness and response plans for each of their nuclear facilities, as well as to designate a Nuclear Emergency Preparedness Manager at each facility.

For its part, the Development Agency Act on the National Institute for Quantum Science and Technology was an important *addition* to the measures taken in the Nuclear Emergency Act.

The Development Agency Act established further funding to be set aside for the study of the effects of radiation on the human body and the medical applications for radiation, as well as research towards prevention and treatment for radiation exposure. These two laws (i.e., Development Agency Act and the Nuclear Emergency Act) served as responses to the general public's outrage about the 1999 Tokaimura accident and the deaths of the two operators, yet their scope remains limited because of the Japanese government's hesitation to use these laws to hold nuclear licensees accountable for not meeting safety regulations.

While the 1999 accidents were significant enough to spur the creation of new regulatory laws, they were not the first accidents of this period... and not the most scandalous. In 1995, a Fukui prefecture, sodium-cooled, fast breeder reactor called *Monju* experienced an accident and subsequent fire caused by a sodium leak. While there were no injuries or deaths as a result of the accident, the agency in charge of the reactor, the Power Reactor and Nuclear Fuel Development Corporation (PNC), withheld (and altered) details of the accident, causing severe public backlash when details of the accident came to light (Aldrich, 2012; Mahaffey, 2015, p. 225-226). Several years later, news of further accidents came to light in the early 2000s when Tokyo Electric Power Company (TEPCO) engineers came forward with a list of about 30 incidents that had been covered up by TEPCO management, resulting in the firing of several upper management executives and the shutdown of 17 TEPCO nuclear reactors in 2002 (Alrich, 2012). These initial incidents were formally addressed in a press release by TEPCO in late 2002, confirming the falsified safety reports, though the agency minimized the severity of the falsifications and their potential negative impact. In 2007, TEPCO again admitted to falsifying records for about 200 irregularities that occurred between 1977 and 2002, including covering up safety inspection results that revealed cracks in nuclear reactor vessel shrouds (Cooke, 2009; Wang et al., 2013).

These cover ups occurred at several plants that experienced nuclear accidents, including Fukushima Daiichi and Daini plants, Kashiwazaki-Kariwa, and the Tokaimura breeder reactor. Despite the flagrant breaking of the 1999 Nuclear Emergency Act by TEPCO, no one was charged and only four executives lost their jobs as a result of the falsification of safety records (Cooke, 2009). In an article for World Information Service on Energy (Wise) International, Citizens' Nuclear Information Center noted that the former president of TEPCO Toshiya Minami stated that TEPCO was driven to conceal and/or falsify data because nuclear regulation was “too strict” in Japan, revealing a distinct dissonance between management for the nuclear plants and the feelings of antinuclear protestors (Citizens' Nuclear Information Center, 2002). Despite concerns, the Nuclear and Industrial Safety Agency adopted the allowable “defect standard” approach, which allowed operations to continue despite cracks in the nuclear reactor vessel shrouds (Takemoto, 2003).

There was yet another accident in 2004 involving a steam explosion at Mihama Nuclear Power Plant. This mishap resulted in the deaths of five workers and injuries suffered by six others (Matsumura, 2006). This series of accidents and cover-ups resulted in the loss of trust in nuclear power plants and the Japanese government’s commitment to safety (Cavasin, 2008).

In addition to the previously discussed laws, the government also passed the National Research and Development Agency Japan Atomic Energy Agency Act in 2004 (Act No. 155 of 2004) and passed the Act on Punishment of Acts that Emit Radiation and Endanger Human Life, etc. in 2007 (Act No. 38 of 2007). The latter was implemented as an addition to the Act on the Regulation of Nuclear Source Materials, Nuclear Fuel Materials and Nuclear Reactors (Act No. 166 of 1966) and the Act on the Regulation of Radioactive Isotopes, etc. (Act No. 167 of 1967). The Act on Punishment of Acts that Emit Radiation and Endanger Human Life penalizes and

categorizes the improper handling of radioactive materials as a crime, particularly if it leads to the harm or death of a person. While it could not be used to charge anyone involved in the Tokaimura incident retroactively, it would apply to their situation and hopefully prevent such events from happening again.

Residents did not simply accept the government's legislation as a panacea, however. Instead, citizens participated in bottom-up methods of activism and monitoring of the nuclear state (Wittner, 2009). These methods, including radiation monitoring, would continue to be used in post-Fukushima protests.

### **2011-2023 (Post-Fukushima)**

On March 11, 2011, Japan experienced a triple disaster that would serve as the impetus for massive changes in how Japan's general populace engaged with nuclear power, in the trajectory of the antinuclear and peace movements, and in disaster- and nuclear energy-related law. At 2:46pm on that fateful day, a magnitude 9.0 earthquake off the coast of Tohoku, the northeastern region of Japan, triggered tsunamis that ravaged the coastal prefectures, particularly Iwate, Miyagi, and Fukushima prefectures (National Oceanic and Atmospheric Administration, 2023). The combination of the earthquake and tsunamis caused extensive damage to Japan's coastline and coastal infrastructure, in some cases washing away of whole towns, causing an estimated \$210 billion in damage (National Oceanic and Atmospheric Administration, 2023). The triple disaster caused the deaths of over 20,000 people and the displacement of over 340,000 people. The combined intensity of the earthquake and tsunamis also damaged safety features and caused the loss of power to the reactors in the Fukushima Daiichi and Daini nuclear power

plants, resulting in several meltdowns and necessitating the evacuation of all residents within a 20km radius of the plants.

It took several months after the meltdowns for the reactors to be declared in a state of “cold shutdown.” Yet months later, small amounts of radioactive isotopes were still being released into the atmosphere and surrounding area (Gordon, 2003). The radiation that settled in the area caused the destruction and quarantine of layers of soil, various agricultural products, livestock, and the evacuation and “temporary relocation” of 340,000 residents. Fears over radioactive food products and the genetic effects of radiation once again dominated discourse and protest (Gordon, 2003).

The antinuclear movement began to reemphasize the same environmental concerns as it did following the Lucky Dragon #5 incident. The concerns that the movement had built up over these decades became the primary focus of the Post-Fukushima (2011-2023) era of the movement. Simply stated, the movement emphasized the potentiality of every citizen to become *hibakusha* and victim as long as world leaders existed who wielded nuclear energy. There are, of course, various takes on who should wield nuclear energy and how we should wield it, just as there had been disagreement over who should possess nuclear armaments (Gordon, 2003; Brown, 2018).

At this point, nuclear energy and nuclear nonproliferation had been essentially separate issues in the collective consciousness, but the danger posed by the Fukushima disaster linked them again. While nuclear energy itself isn’t inherently evil (you *can* argue the inherent evil of a nuclear weapon, which is built for one purpose), it still has the capability to cause great harm to people through radiation and even an explosion. In his recounting of the crisis, then-Prime

Minister Naoto Kan noted how close several of the Daiichi and Daini reactors came to reaching catastrophic meltdown (2017). Kan noted that this meltdown would have caused an even bigger explosion than the one that had happened, an even bigger release of radiation, and a larger contamination radius—that could have reached all the way to Tokyo. Of course, it should be noted here that Units 1-3 of Fukushima Daiichi *had* experienced meltdowns.

The response to and handling of the disaster at the Fukushima Daiichi and Daini's was also a point of criticism, as there were several issues with chain of command and preparedness that nearly exacerbated the disaster to a critical point. The actions of the responsible parties—namely the Japanese government and the Tokyo Electric Power Company (TEPCO)—during this time led to several changes in disaster response and nuclear policy in Japan after protest and criticism from the public.

### ***Immediate Disaster Response***

Disaster relief is already complicated after an earthquake and tsunami, with debris and damage to infrastructure including roads and consistent electricity slowing down recovery processes. Miscommunication, inadequate leadership, and disaster resources being tied up in the earthquake and tsunami recovery created confusion and difficulties with evacuation and then the relocation of citizens.

The disaster at Fukushima Daiichi Power Plant was categorized as a level 7 on the IAEA's International Nuclear and Radiological Event Scale (IAEA, 2020). The destruction to the plant caused by the tsunami damaged generators that were running the cooling systems designed to keep the reactor cores from overheating in five of six reactors, and backup generators were also damaged. Without power, accurately monitoring the status of pressure and temperature in

the reactors was difficult. Despite venting steam in the hopes of releasing pressure and lowering the temperature, Unit 1 experienced a meltdown on March 11. Then on March 12, a hydrogen explosion in Unit 1 caused damage to emergency power lines and fire hoses, delaying the restoration of power and the delivery of coolant. At 8:20 on March 12, a full day after the loss of power and cooling systems, TEPCO began injecting seawater into Unit 1 in an attempt to cool the core of the reactor. On March 13, the emergency cooling system for Unit 3 failed and had a meltdown (Kan, 2017). Despite TEPCO beginning to inject seawater into the reactor, a hydrogen explosion occurred a day later on March 14 at Unit 3. On March 15, a hydrogen explosion occurred at Unit 2, and TEPCO continued pumping seawater into Units 1, 2, and 3 reactors. At this point, radiation levels were dangerously high at 400 millisieverts per hour (for context, radiation workers annual dose limit is 5 rem or 50 millisieverts) and harmful levels of cesium 137 and iodine 131 were also found near the plant (U.S. Nuclear Regulatory Commission, 2021; Janos, 2021).

On March 11, 2011, two hours after declaring a nuclear emergency, the Japanese government issued orders to residents within a 3 km radius to evacuate. A day later they expanded the evacuation radius to 10 km and then a few hours later to 20 km after a hydrogen explosion occurred at Unit 1 (Fukushima on the Globe, 2017). At the same time as then-Prime Minister Naoto Kan's declaration of a nuclear emergency, a meltdown occurred in the Unit 1 reactor (Kan, 2017). On March 15 after explosions at Units 2 and 4, the government ordered residents living within a 20 km to 30 km radius to stay inside. These back-to-back evacuation orders caused confusion, as residents were unsure of which to follow immediately. On April 22, 2011, the 20 km radius around the plant was declared a restricted area and everyone other than emergency response workers were prohibited from entering the area. On May 11, evacuees from

within the 20 km radius were allowed two hours to return for important belongings (Janos, 2021).

Then-Prime Minister Kan's account of the disaster, *My Nuclear Nightmare*, details how Kan used the Act on Special Measures Concerning Nuclear Emergency Preparedness to respond to the disaster and how the structure of the Japanese government and nuclear village did not account for a disaster of that scale. It also reveals a level of bureaucratic incompetence that is astounding, including a director-general of the Nuclear and Industrial Safety Agency (NISA) who was not a nuclear energy expert and therefore could not give a technical description of the problems and potential solutions available.

Kan used the Nuclear Emergency Act to declare a nuclear emergency and establish a Nuclear Emergency Response Headquarters, allowing the Prime Minister's office to work directly with TEPCO, Nuclear and Industrial Safety Agency (NISA), Nuclear Safety Commission (NSC), and Ministry of Economy, Trade and Industry (METI), while also granting the Prime Minister some authority and direction over the Nuclear Licensee, TEPCO. Kan's account details how TEPCO considered abandoning the site on March 14-15, and how this led to the establishment of the Government-TEPCO Integrated Response Office. This was a move intended to pressure TEPCO management into staying and dealing with the situation, while improving the poor communication between the government and TEPCO. According to Kan, one of the major failures of the state is that there was no designated organization like NISA or NSC that was empowered specifically for dealing with nuclear accidents. This was likely because the creation of such an organization would have been tantamount to the admission that an accident *could* happen (2017, p. 41).



### *Displacement and Dealing with Long-Term Disaster*

In response to the gap in nuclear accident response organizations, the Nuclear Regulation Authority Establishment Act (Act No. 47 of 2012) was passed. The law combined NISA and the NSC and established a new regulatory body, called the Nuclear Regulation Authority (NRA). It established the Nuclear Regulation Authority as preeminent in matters related to coordinating nuclear administrative agencies in responding to and investigating nuclear accidents and their causes. The Nuclear Regulation Authority Establishment Act also gave the NRA the ability to inspect nuclear power plants and anything related to nuclear accidents. It also gives instructions for establishing an Emergency Response Committee in conjunction with the Nuclear Emergency Act.

The Japanese government addressed post-disaster recovery by passing several laws, including the Act on Special Measures for Fukushima Reconstruction and Revitalization (Act No. 25 of 2012) and Act on Promotion of Support Measures for the Lives of Disaster Victims to Protect and Support Children and Other Residents Suffering Damage due to Tokyo Electric Power Company's Nuclear Accident (also known as the Act to Support Nuclear Disaster Victims' Daily Lives) (Law No. 48 of 2012).

The Fukushima Reconstruction and Revitalization Act establishes the government's obligation to restore infrastructure, to provide accurate information on contamination from radioactive materials and cleanup, and to care for residents by providing medical exams and assistance with housing. However, the law's primary focus is on infrastructure and the ways in which the government must work with local governments in Fukushima to rebuild, rather than detailing the ways in which disaster victims should be supported. As a result of lack of attention

to the victims themselves, the Act to Support Nuclear Disaster Victims' Daily Lives was passed. This law provided support for finding housing and laid the framework for victims to be able to receive compensation from TEPCO. Additionally, the law works directly with the NGO-created Nuclear Disaster Victims' Support Network to gather opinions from disaster victims on what measures would be helpful (Umeda, 2012).

Of the 340,000 displaced by the disaster, about 164,000 were displaced by the implementation and enforcement of the Fukushima nuclear power plant evacuation zones (Do, 2019). According to Human Rights Now, a human rights NGO based in Tokyo, Japan, there are still 30,000 people who are displaced as of July 2023. As early as April 2011, the government began changing evacuation orders to allow people in certain areas to return, and by 2014, several evacuation orders had been lifted through the Act on Special Measures for Fukushima Reconstruction and Revitalization. An important exception to this movement to return the population to their homes was "Difficult-to-Return Zones," which have radiation levels too high to live in. Areas with 20 millisieverts annually were considered safe for citizens to return.

In 2015, TEPCO and the Nuclear Emergency Response Headquarters announced plans to lift further evacuation orders and end temporary housing and other compensations for people who were able to return to their old homes by 2017 (Broinowski, 2017; Kawasaki, 2023). As of 2023, many more evacuation orders have been lifted. However, parts of these prefectures still remain designated as Difficult-to-Return Zones and will require further time and decontamination efforts (Yamaguchi, 2023). Residents who haven't returned yet either haven't done so because their homes remain in the Difficult-to-Return Zones. Quite understandably, they have concerns about radiation, or they have no occupation/work opportunities where it is safe to return (Do, 2019).

### *A Second Generation of Hibakusha*

As Ito Takeshi explains, radiation is the link between the victims of the atomic bombings of Hiroshima and Nagasaki, the members of Lucky Dragon #5, and the Fukushima nuclear disaster victims. Radiation links these people as *hibakusha*, a term which I've demonstrated has both legal and medical components. Following the atomic bombings, *hibakusha* (被爆者) referred to atomic bomb survivors, but after the Fukushima accident, these new victims began to be referred to as *hibakusha* (被曝者) or nuclear exposed people (Romei, 2017). The change in characters allows for the absorption of Fukushima disaster victims into the identity and community of *hibakusha*. Many Fukushima *hibakusha* also experience discrimination, threats, and bullying as a result of their status as *hibakusha*. The perception of radiation as contagious still persists and deeply impacts the quality of life for *hibakusha*. These are similarities that exist between Hiroshima and Nagasaki *hibakusha* and Fukushima *hibakusha*.

Officially, there is no designation of the Fukushima disaster victims as *hibakusha* in law. However, they are generally called evacuees and are categorized by the law into two disaster-affected groups. Forced evacuees (*kyōsei hinansha*) are people who were forcibly evacuated from officially designated disaster areas and are eligible for compensation from TEPCO and government disaster aid. Voluntary evacuees (*jishu hinansha*) are people from outside designated disaster areas who left as a result of anything from health concerns to inability to maintain their previous lifestyle. Voluntary evacuees do *not* qualify for government aid and only receive *some* compensation from their prefectural government (Romei, 2017). This tiered system of benefits and legal recognition mirrors that of the atomic bomb *hibakusha*.

It is these similarities and the experience of exposure to radiation that cause atomic bomb *hibakusha* to accept any person who has been exposed to radiation through the nuclear cycle—

through weapons, nuclear energy, waste, etc.—as *hibakusha* (Miyazawa, 2022; Hibakusha Stories, 2023). These similarities can also be seen in their literature and art, as works around *genbaku* (原爆, atomic bomb) and *genpatsu* (原発, nuclear power) experiences draw on similar themes of radiation and fear of radiation, contamination, death, and isolation (De Pieri, 2017). While these works allow *hibakusha* to share in their connected identities, not all residents from radiation-affected Fukushima want to identify themselves as *hibakusha*. Not only do the different *kanji* readings separate the distinction between atomic bomb-affected *hibakusha* and more generally nuclear-exposed *hibakusha*, but Fukushima *hibakusha* also consider themselves separate. Examples of radiation-exposed residents who do not use the identity label do not use it precisely because they do not want the discrimination that comes with the label. They do not want to admit to being exposed (Miyazawa, 2022). Yet despite these distinctions, atomic bomb-affected *hibakusha* themselves identify the radiation link and bestow the identity to the “second generation” of *hibakusha*, wanted or not. As efforts are made to distort or filter information and data about the radiation people were exposed to and the health consequences (both short- and long-term), these connections to prior *hibakusha* and the memories of their protest tactics, advocacy for laws and medical support from the government, and their efforts to educate others on the risks of nuclear weapons and radiation will become increasingly more important (Broinowski, 2017).

### ***Nuclear Disarmament Policy Following Fukushima***

In 2009, American President Obama gave a speech on disarmament in Prague, known as the Prague Agenda, which outlined several goals, including reducing warheads and stockpiles, a global ban on nuclear testing, and the strengthening of the nuclear non-proliferation treaty (Obama, 2009). The 2010 Review Conference of the Parties to the Treaty on the Non-

Proliferation of Nuclear Weapons was successful. The Final Review Documents were accepted, meaning that steps for implementing nonproliferation had been agreed upon, and the New START Treaty was signed by the United States and the Russian Federation (Ministry of Foreign Affairs of Japan, 2012b). According to Japan's Ministry of Foreign Affairs, it was mainly Japan's joint efforts with Australia that provided the structure for the Final Documents for the NPT. Together the two nations spearheaded the 2010 Foreign Ministers Meeting on Nuclear Disarmament and Non-Proliferation as co-chairs, which created the cross-regional Non-Proliferation and Disarmament Initiative (Ministry of Foreign Affairs of Japan, 2012b).

The Japanese government has continued in nuclear disarmament education into this period. In 2012, the Global Forum on Disarmament and Non-Proliferation Education, organized by Japan's Ministry of Foreign Affairs and United Nations University, released the Nagasaki Declaration. This statement commits to furthering disarmament and nonproliferation education through initiatives that target younger generations and that work with international organizations and government bodies. In particular, they promise to work on "translating and digitizing the voices of victims of armed violence into different languages, in particular the testimonies of atomic bomb survivors and victims of small arms and light weapons" (Global Forum on Disarmament and Non-Proliferation Education, 2012). In accordance with the 2012 Nagasaki Declaration's commitment to digitize the voices of those affected by nuclear violence, in April 2023 the Japanese government published a page on *hibakusha* experiences on their Ministry of Foreign Affairs website. The page contains video and written testimonies of *hibakusha* and their experiences, which are available in several languages, including English, Russian, and Chinese. From 2013 to 2015, Japan also issued seven joint statements with Australia and New Zealand about the humanitarian consequences of nuclear weapons to the United Nations.

These efforts may show the Japanese government's commitment to disarmament, but several statements by the former Japanese Prime Minister Shinzo Abe cast doubt on the Japanese government's true agenda. Despite the public declarations of the need for disarmament, then-Prime Minister Abe was heightening security in the region as a result of North Korea's nuclear posturing. From 2012 to 2020, Abe expressed full support for nuclear weapons and U.S. extended deterrence, often linking threats towards Japan as threats towards the United States (Romei, 2022). Abe also expressed support for Japanese nuclear weapons in 2002, claiming that small weapons were not against the constitution, which is rhetoric that is similar to his grandfather Nobusuke Kishi's own support for nuclear weapons (Chugoku Shimbun Peace News, 2002; Romei, 2022).

Furthermore, in 2012, the *Mainichi Shimbun* published a survey about nuclear weapons, which showed that several members of the LDP supported nuclear weapons armament, including Abe (Okura, 2020). On August 6, 2015, Abe omitted the usual pledge to uphold the Three Non-Nuclear Principles (i.e., that Japan shall not possess nuclear weapons, manufacture nuclear weapons, or allow the introduction of nuclear weapons into Japan) at the 70th anniversary memorial for the atomic bombing of Hiroshima but mentioned it during a speech at the Nagasaki memorial a few days later after severe backlash from the general public (Romei, 2022). Abe's emphasis on U.S. extended deterrence is at odds with the antinuclear public opinion, as is evidenced by the severe backlash that occurred when he expressed such opinions. The ambivalence of the nuclear policies and rhetoric of leading government officials sends mixed messages and only exacerbates the strained relationships in the region. Japan's efforts in regard to nuclear disarmament feel weak in comparison to what Japan could do. If they weren't worried about their relationship with the U.S., continuing extended nuclear deterrence, and didn't have

various LDP members expressing tacit support for the potential of nuclear weapons, Japan could be a more powerful advocate. Considering the current situation with North Korea increasing their nuclear weapons testing, Japanese rhetoric that expresses support for Japanese nuclear weapons (a parallel line is also being voiced by South Korea in an effort to push for further U.S. extended deterrence) could potentially exacerbate the situation and lead to needless violence (Davenport, 2023; Kim, 2023).

### **Memory, Mourning, and Moving On**

In 2021, the pandemic-delayed Tokyo 2020 Olympics began with the Olympic torch relay in Fukushima, a symbol of Fukushima getting a fresh start. On the day of the ten-year anniversary of the event, torches and candles were lit across the country. At 2:46 p.m., the exact time the earthquake struck, a moment of silence was observed (Lee & Schiffrin, 2021). In addressing Japan on the ten-year anniversary of the disaster at the annual anniversary of the 3/11 Great East Japan Earthquake at the Tokyo National Theater, Emperor Naruhito stated that the “unforgettable memory of the tragedy” persisted, even a decade later (McCurry, 2021). Despite being described an “unforgettable” tragedy, the Japanese government designated the tenth anniversary (2021) to be the last year a national memorial would be held for the date. If it is unforgettable, why put an end to official memorialization of the event—unless you did indeed want to forget? When the state does choose to remember the 3/11 disaster, it often remembers those who died as sacrifices, to learn a lesson, which parallels the way those who died in the bombings were talked about.

For the survivors of the disaster, the torments of their memories remain present, despite the government’s choice to begin the process of forgetting. The memories of the survivors have been captured through various projects and in various forms, including film, illustration, manga,

and performance. The act of remembrance and memorializing is an act of protest, especially as the state actively seeks to move on. Antinuclear activists question: If Japan has learned its lessons from its sacrifices, then why does it continue to pursue nuclear energy?

### *State Memory and Memory as Protest*

In memorializing the 10th anniversary of the 3/11 triple disaster, many Japanese government officials' statements have referred to those who died during that disaster as sacrifices. In a message to the Japanese people on March 2, 2021, Prime Minister Suga Yoshihide stated that the Japanese government is working towards reconstruction "without allowing the lessons gained through the tremendous sacrifices caused by the earthquake to fade away" (Suga, 2021). Likewise, in an address to the people of Ishinomaki, the city's mayor Hiroshi Kameyama said, "As a place that was hit hard by the disaster, we want to carry forward its memory so that such a sacrifice never needs to be made again," (McCurry, 2021). Yet again, the discourse of referring to lives lost as a direct result of the Japanese government's negligence as sacrifices moves the blame away from the government. This kind of language is intended as a way of mitigating the situation and easing the frustration caused by these needless deaths.

The truth is that the use of the word "sacrifice" is meant to express the idea of giving up or offering up of something, usually in exchange for something or in order for something to be achieved. In this particular use, this attribution of value and meaning to the loss of life incurred by the disaster brings to mind Jean-Luc Nancy's discussion of "general equivalences" (which is ironic, given that Nancy was talking *about* Fukushima). In this case, both Prime Minister Suga and Mayor Kameyama's statements show meaning being attributed to the deaths, via the purpose of improving Japan's ability to respond to disaster and help lead others in disaster response. In particular the use of the word "sacrifice" is also an "equivalence, exchangeability, or



convertibility” in the sense of how Nancy discusses general equivalence (2014). Nancy states that the meaning of general equivalence is outside of just mercantile exchange but all possible values, including those of “honor” or “justice.” What about the general equivalence of exchanging human lives for a lesson in disaster response?

In many ways the Japanese government defined the value of the lives lost to the disaster in their memorialization of it. Financial reparations and state-focused future sentiment are the two ways that the Japanese government has chosen to reconcile the memory of the 3/11 disaster. Although “chosen” might be too strong of a word, as the Japanese government and nuclear plant operator TEPCO had to be court-ordered in 2020 by the Sendai High Court and again by the Tokyo High Court in 2021 to pay compensation to victims of the Fukushima nuclear disaster (Venis, 2021). In fact, the hesitation to pay damages to victims on behalf of both the Japanese government and TEPCO, despite public knowledge of ignored safety concerns prior to the 3/11 disaster, speaks volumes about what, if any, value is attributed to the victims.

In addition to the monetary recompense it has offered, the Japanese government has held several memorials, released several statements, and worked with various nonprofits and organizations in relation to 3/11. The majority of these efforts revolve around the question of *moving forward* after Fukushima.

For his part, Nancy refers to the question of “after” Fukushima as a “matter of finding out if there is a future” and of “orientation |sens|, direction, path—and at the same time of meaning |sens| as signification or value,” (2014, p. 16). On the other hand, the Japanese government attempts to understand or give meaning to the disaster and related loss of life by giving it value—namely by describing these things in the context of helping the future by being sacrificial to Japan in some way. In dealing with the memory of the disaster, the Japanese government

frequently turns to discussion of the “after” Fukushima and the future, which is a visible theme in government-sanctioned statements and memorials. One might argue that the government’s actions of releasing statements acknowledging their fault in poor disaster management, providing monetary settlements, and building memorials is enough. However, given the fact that there are still people displaced by radiation and ongoing cleanup efforts, it is not. For the people left behind and those who had to leave their homes, the memories do not fade and the push for recovery leaves them behind. In a letter to her husband who went missing after the tsunami, Sachiko Kumagai wrote, “Migaku san, everyone is working towards a “recovery,” but what am I supposed to work towards?” (Saito, 2021). While Kumagai’s letters were private works, other literature and art has been published and created that expresses the inability to move on from the disaster. These works attempt to articulate the struggle to process an “after” the disaster. This is because the victims are still entrenched in the event. These works seek to explore the ways the disaster could have been avoided and provide media to facilitate the discussion of topics like displacement, grief, and radiation, all while the rest of the country and their government urges them to move on and forget. In poems about the days following the disaster, poet Wagō Ryōchi wrote that the “meaning of all things is probably determined after the fact. If so, then what is the meaning of that period “after the fact”? Is there any meaning there at all?” (Serrano-Muñoz, 2019). It seems that the government narrative that attempts to assign meaning to the deaths and the lives that were impacted by the disaster has been intended to lead the Japanese people towards redevelopment and moving on. Unfortunately, the Japanese government itself cannot dictate when the victims can move on precisely because they are the victimizers as is manifested by their failure to regulate, direct, and punish TEPCO. Thus, it is all too convenient for the Japanese government and TEPCO for citizens to move on and forget the mistakes and lack of

accountability that led to the accident in the first place. For this reason, the act of remembrance by victims, protestors, and the Japanese people is transformed into an act of protest, just as it had been in the years following the bombings.

### *Perceptions of Nuclear Energy Following 3/11*

Following the nuclear accident, public trust and support for nuclear energy quite deservedly declined severely, with various late-2011 polls showing that 50-60% of the population supported reducing or abolishing nuclear energy entirely (Andrews-Speed, 2020). TEPCO's plant operators were warned, and yet, they subsequently ignored tsunami and earthquake stress test warnings at least five times after 2000. This, when paired with TEPCO's prior scandals (e.g., the falsification of over 200 safety reports), increased distrust and anger with the both the government and TEPCO (Wang et al., 2013; Nakamura & Kikuchi, 2011). When the LDP took power again in 2012, they passed laws to prevent radiation data from being made public, under the guise of preventing misinformation (Brown, 2018).

As a result of the disinformation coming from the state, citizens began taking matters into their own hands. The Fukushima disaster reinforced environmental concerns about radiation from prior accidents, and as a result, citizens and NGOs began partaking in more bottom-up responses. These actions were a continuation of the antinuclear tactics used in the 1990s-2010 period. These bottom-up responses include radiation monitoring, mass protests, and the protesting of bureaucratic authorities (Aldrich, 2012).

Needless to say, the disaster prompted a new wave of protests, which included organizing petitions, referenda, bringing plant operators to court to gain injunctions against nuclear plant restarts, and the establishment of antinuclear citizens groups, such as the Citizens' Commission on Nuclear Energy (Andrews-Speed, 2020). Other acts of protest include gatherings outside of

the National Diet in Tokyo, marches, and demonstrations. On June 29, 2012, about 200,000 people took to the streets to protest the Oi Nuclear Power Plant restart, showing that a new culture of protest against nuclear energy was beginning (Brown, 2018).

As of February 2022, there were 33 operable reactors, yet only eleven have received clearance to restart. Sixteen are in the process of restart renewal, two reactors are under construction, and 27 reactors have shut down since 2011 (World Nuclear Association, 2023). Despite government anxiousness to push forward the reopening of various plants with the promise of better regulations and safeguards, protestors have pushed back and caused serious delays (World Nuclear Association, 2022). Public opinion polls by Nikkei indicate that opposition to a return to nuclear power in Japan remained firm until 2022, with support rising from 44% to 53% from September 2021 to March 2022, most likely from the energy crisis and high prices as a result of Russia's February 2022 invasion of Ukraine (Brown, 2018; RANE 2022; Brumfiel 2022). As the crisis continues to raise energy prices, support may continue to rise.

Other alternatives for energy have also been pursued. Fukushima prefecture boasts the Minamisoma Mano-Migita-Ebi solar power plant that is made of 220,000 solar panels. Its construction was a move made following the Fukushima disaster in an effort to drive reconstruction and promote alternative renewable energy (Bassetti, 2023). Fukushima prefecture in particular has increased their renewable energy from 23.7% in 2011 to 47% in 2021, with a goal of reaching 100% use of renewable energy for electricity needs by 2050 (Bassetti, 2023). These efforts have seen some complications because of power companies lobbying and strict regulations around the siting of plants. Still, support for these types of renewable projects from

citizens and local governments shows awareness of the need to generate energy while protecting the environment and bodies of the people of Japan.

Another controversial aspect of the moving forward process is the release of Fukushima's treated wastewater. On August 24, 2023, Japan's Tokyo Electric Power Company (TEPCO) began their plan to release 1.3 million metric tons of wastewater into the Pacific Ocean (Kuhn, 2023). The wastewater comes from cooling the cores of the Fukushima Daiichi reactors and has been filtered through an Advanced Liquid Processing System (ALPS) to remove all radioactive particles except tritium. While Tritium is radioactive and dangerous in large and concentrated amounts, TEPCO's release method will maintain radioactivity levels well below Japan's national safety standard of 60,000 becquerels per liter, at 1,500 becquerels per liter. Despite the IAEA's assurances of safety, neighboring countries in the Pacific, including South Korea, China, and the Cook Islands, have cited environmental concerns and opposed the discharge by creating or strengthening existing bans on all Japanese seafood or Fukushima-caught seafood. In addition, Japan's farmers and fishermen have been protesting the move as well, for fear that radiation concerns will ruin their livelihoods. Concerns over the effects of radiation as a result of the tritium and the lasting effects of Fukushima's disaster will continue to impact international and national security in the region as the Japanese government moves forward with the release, which marks a new chapter in the post-Fukushima antinuclear movement.

### **Conclusion: Moving Forward After Fukushima**

The antinuclear movement, in both the antinuclear weaponry and energy capacities, goes beyond the total number of Japanese residents involved in protest methods directly. This movement, far from monolithic in its agreement with or acceptance of nuclear power, relies heavily not only on national sentiment on nuclear power but relies on local, grassroots exchanges between residents and their local government officials. Yaizu and the other port town's fishermen's unanimous resolution calling for nuclear safety regulations and compensation is an example of members of a group of local working people using discourse and protest methods at a local level with the intention of large-scale or national change and policy revision (Kotler & Hillman, 2000). On the other hand, large-scale protests, such as the Anpo protests and the Sugunami Appeal also happen, but in general, much change is brought about in Japan by agents starting at local levels. Nuclear discourse has evolved since Hook's designation of the various eras, transitioning the *hibakusha* perspective from a primarily nuclear disarmament focus, to encompassing nuclear energy as being the next cause of victimization through radiation.

As Fukushima and (Ito Takeshi's) *hibakusha* have shown, nuclear radiation concerns go far beyond the initial date of disaster. Nuclear policies are not only for *current* victims of radiation. They also provide precedent in the event that another nuclear disaster or conflict happens to Japan. How will Japan learn from prior disasters so as to mitigate damage and protect their citizens from another nuclear accident? What would care look like for future victims of radiation poisoning?

Clearly security and international policy are important factors to consider, as Japan's nuclear allergy and the discussion of the United States' extended deterrence are at the forefront of Japanese security discussions. Yet, protests such as Anpo and the Sugunami Appeal show that

concerns over nuclear weapons and the armament of Japan, as well as nuclear armament of neighboring countries, are also important aspects of Japan's relationship with nuclear power. Policy related to atomic power can be approached in three-pronged categorization: 1) health/radiation related policy (such as Law for Health Protection and Medical Treatment for Atomic Explosions Sufferers), 2) security and international policy (Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and US-Japan Security Treaty), and 3) policy on nuclear energy (Atomic Energy Basic Law No. 186). As a result of discourse and protest, these policies have had to account for the victims of the disaster, as well as answer for their future wellbeing and provide guidelines for how to approach (or not to approach) nuclear disasters and their aftermath (Kotler & Hillman, 2000).

However, the Japanese Government and other members of the Nuclear Village, including TEPCO, have shown the difficulty in holding a state responsible for disasters or for maintaining commitment to safety regulations or compensation referendums, even with the backing of court mandate and law. This, too, is something that international policy makers (and potential victims) can and should address. This is no mere speculation. As the invasion of Ukraine by Russia has unfolded, already a nuclear power plant has been damaged (Brumfiel, 2022). In addition, Russia's leadership has cast the threat of nuclear war over both the populace of Ukraine as well as the world, while North Korea's weapon testing and China's flexing of nuclear capabilities further strain tensions in the Pacific (Kim, 2023). In this moment, as world leaders and influential political and economic autocrats blithely toss around threats about using nuclear weapons "if necessary," it is time to remember Ito Takeshi's warning and rally cry—that the general populace can become victim to radiation as potential *hibakusha* without the total disarmament of nuclear weapons and the discontinued use of nuclear power.

The political relationships between history, memory, trauma, and forgetting have become fragmented in Japan's transition to "modernity" following World War II. In moving on from the war, much of the truth of what happened became shrouded, constantly being recast, depending on the perspective and nationality of the writer. There are plenty of books discussing Hirohito's role (or "fake role") in the war and wartime decisions. In many discussions of the bombings, Japan's war responsibility is often minimized or denied, often in an effort to make them out as innocent victims of the atomic bombings. Oftentimes, the United States' role as righteous hero is maximized, with the horrors they inflicted on others minimized or erased, in an effort of retaining their "hero" status. The reality is that these states, along with many others, act on their own interests. States' decisions and the actions of members of their countries, particularly and especially those actions that are military in nature, impact their citizens long after the military action is over and always leave victims in the aftermath.

The antinuclear movement of Japan is multi-faceted. It is less of a single identifiable political and social movement and more of a conglomerate of similar and interconnected movements, constantly in conversation with each other. The antinuclear energy movement is both separate and an integral part of the antinuclear weapon and peace movements. Because of the nature of the radioactive materials used in nuclear energy, it can neither be completely separate from nuclear weapon proliferation, climate change concerns, or peace processes. Access to non-fissile and fissile materials is used as a political bargaining chip in international relationships, with the knowledge that non-fissile materials can be converted into fissile materials. Therefore, the possession of these materials can become issues of international security, rendering them inseparable from concerns about nuclear weapons or the pursuit of peace. It becomes more worrisome as climate change exacerbates weather events like hurricanes,



earthquakes, tsunamis, flash floods, and landslides. Prime Minister Naoto Kan recognized that if the situation at Fukushima had gotten any worse, all of Tokyo would have had to be evacuated and would have been left irradiated. As climate change worsens, disasters like Fukushima become even more of a national and international security risk, particularly when private utility companies like TEPCO are not held responsible for ignoring safety concerns and failing stress tests.

This multifaceted antinuclear movement has evolved in waves over the decades. It has changed how we discuss and remember the events of the atomic bombings, accidents at nuclear power plants, nuclear testing in the Pacific, Japan's surrender and the end of World War II, and even how we imagine ourselves as global citizens. Through not only physical protest such as organizing outside of government offices on Fridays and citizen petitions, but also through arts and literature, Japanese antinuclear protest has led citizens to fight for their safety and their right to a future free from the omnipresent looming threat of nuclear disaster. While the remaining number of *hibakusha* dwindles as they grow old and pass away, we must bear witness to the work they have put into creating a nuclear-free world. Without question we can bear witness to their massive archive of arts and literature, the histories of their collective protests, and then choose to follow their lead by remembering their suffering and continuing their work.

As energy needs soar, it is worth looking at the steps taken to create and use energy. Who and what are the by-products of our pursuit of energy? How are those creating or mining it possible exposed to potential harm, and what steps are governments taking to mitigate potential disaster and protect and care for those involved? The experiences of both generations of *hibakusha* can serve as a template—and warning—for how governments and citizens might respond to a similar crisis.

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