

Beyond the “Empire of Trauma”: Cold War Psychological Science and the Bombings of Hiroshima and Nagasaki

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Abstract: *In 1945, researchers on a mission to Hiroshima with the United States Strategic Bombing Survey canvassed survivors of the nuclear attack. This marked the beginning of global efforts—by psychiatrists, psychologists, and other social scientists—to tackle the complex ways human minds were affected by the advent of the nuclear age. Nuclear Minds traces these efforts and the ways they were interpreted differently across communities of researchers and victims. The manuscript explores how the bomb’s psychological impact on survivors was understood before the invention/ discovery of the concept of Post-Traumatic Stress Disorder (PTSD). In fact, I argue, psychological and psychiatric research on Hiroshima and Nagasaki rarely referred to trauma or similar categories. Instead, institutional and political constraints—most notably the psychological sciences’ entanglement with Cold War science—led researchers to concentrate on short-term damage and somatic reactions or even led, in some cases, the denial of victims’ suffering. As a result, very few doctors tried to ameliorate suffering. This does not mean the professions “failed” to diagnose PTSD (a non-existent category at the time), rather both doctors and, even more importantly, survivors, understood and experienced psychological suffering and their role in society differently.*

A few weeks after the August 1945 nuclear attack, researchers with the United States Strategic Bombing Survey (USSBS) mission to Hiroshima set out in jeeps across the rubble to find eyewitnesses who could tell them about their experience of the atomic bomb. In their bilingual forms, the soldiers—many of whom were Japanese Americans recruited in West Coast internment camps—were instructed to ask the residents in Romanized Japanese: “*Genshibakudan ni tsuite dou omowaremashitaka?*” or, “What have you thought about the atomic bomb?” This surreal scene of dropping a weapon of mass destruction on a city and then going about with clipboards politely asking people how they felt about it succinctly captures what Mark Selden called the “American way of war” (Selden 2007). More specifically, this paradoxical encounter between American psychological researchers and Japanese survivors encapsulates the zeitgeist of America’s and, more generally, the Cold War psychological sciences’ entanglement with the nuclear age. The Hiroshima survey captured the hubris, ambition, and complexity of the historical trajectories that led to and from this first psychological survey of the *hibakusha* (A-bomb survivors).

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The 1945 survey was the beginning of global

efforts by psychiatrists, psychologists, and the wider social sciences to tackle the complex ways in which our minds were affected by the advent of the nuclear age. USSBS findings were central to a new domestic civil defense effort and coincided with a general rise in the interest and status of the psychological sciences in North America. In Japan, the survey and later research efforts in the US and at the Hiroshima-based Atomic Bomb Casualty Commission (ABCC) led to multiple contradictory responses by Japanese psychological sciences, as they tried to come to grips with the complex relationship between radiation, the shock of the A-bomb, and the larger legacy of war. Both bodies of researchers were enmeshed within an emerging trans-Pacific research network that produced massive amounts of data about the dropping of the atomic bomb and subsequent nuclear tests in and around the Pacific rim.

However, in April 1962, the young Jewish-American psychiatrist Robert J. Lifton, then in Japan to conduct research on Japanese youth, went to Hiroshima and met with Hiroshima University psychologist Kubo Yoshitoshi. He left the meeting bewildered and amazed by what he saw as a complete lack of research by Japanese and other professionals into the psychological toll of the A-bomb. In a letter to his friend David Riesman, Lifton remarked, “I found our talk curiously unsatisfying, and it was hard to tell exactly what he was after in his studies” (Lifton to Riesman 1962). Later, he recalled in his memoir, “what struck me most forcibly was that seventeen years after such a tragic turning point in human history, no one had attempted a comprehensive psychological study of what had occurred in Hiroshima” (Zwigenberg 2023, 222). Lifton set out to do just that kind of comprehensive study. His Hiroshima research, which came out under the title *Death in Life: Survivors of Hiroshima*, won him the 1969 National Book Award in Science and made him one of the most outspoken and well-known advocates for recognizing survivor

trauma in North America (Lifton 1968). In 1980, Lifton sat on the committee that drafted the entry of Post-Traumatic Stress Disorder (PTSD) into the American Psychiatric Association’s (APA) *Diagnostic and Statistical Manual of Mental Disorders (DSM III)*, capping years of work sparked by the meeting in Hiroshima.

But what about that seventeen-year gap Lifton mentioned in his letter? Why did he see himself as a pioneer? What about the USSBS? Kubo? And other Japanese researchers? Significantly, Lifton was not simply uninformed about previous research efforts. Given the nature of research done since the end of the war, it is easy to understand why he would see these seventeen years as a hiatus in research. Lifton’s remark of not understanding Kubo’s work is telling. His research focus and political sensitivities were fundamentally different from other researchers. While Lifton’s work focused on victims and the long-term psychological damage they suffered, almost all the research done between the USSBS surveys and the Lifton-Kubo meeting, including that of Kubo, either focused on short-term damage or had other objectives in mind. Most American researchers, like those in the USSBS jeeps wandering about Hiroshima, were not concerned about the victims or healing the mental scars left by the A-bomb, but instead were interested in what researchers could learn from *hibakusha* for the purpose of future psychological warfare and the protection of Americans from a nuclear attack. Japanese researchers like Kubo, for their part, were more interested in the political meaning of survivors’ suffering and how it could contribute to the cause of peace, as opposed to survivors’ mental health.

Nuclear Minds

The most direct explanation for the very different way researchers understood victims’

suffering before and after Lifton's intervention is in the epistemological shift brought about by the entry of trauma and PTSD into our lexicon. What we now understand as trauma was simply not understood the same way by the multiple research projects that looked at Hiroshima and Nagasaki before PTSD became an interpretative category. My book, *Nuclear Minds: Cold War Psychological Science and the Bombings of Hiroshima and Nagasaki*, is first and foremost a pre-history of PTSD in the context of the nuclear age. The book catalogues the efforts of researchers and the ways the psychological impact of the A-bomb was analyzed and interpreted differently across trans-Pacific communities of researchers and victims before the 1980s. Taking the Kubo-Lifton meeting and the USSBS survey as its main points of departure, *Nuclear Minds* surveys the reactions of the psychological sciences in Japan and in the US to the A-bomb's impact and examines how Cold War politics, American denial, and the difficulty of studying so-called "A-bomb disease" limited recognition of the mental hurt of those who were exposed to the bomb.

I do not wish to argue that Kubo, the USSBS researchers, and others were indifferent to survivors' suffering. Far from it. Both American and Japanese researchers were quite affected by what they saw; they just looked beyond it into "higher" realms of action. Psychiatrist Alexander Leighton, the head of the USSBS Hiroshima mission, who spent considerable time interviewing survivors, wrote, "I became aware of the emptiness that had been with me since I had entered Hiroshima, an emptiness that seemed to reflect the city." Leighton was first angry, then numb,

I felt like one in a dream trying to keep in a box hidden from sight a nameless something that struggled to come out. I put a box within a box and tied each down,

but it was always there pushing against the last lid... Amid this jumble of thought and feeling there came, like a huge round fish swimming out of green vagueness into sharp focus, the image of the white-face clock in the gloom below with its hands at 8:15 (Leighton N.D. 6)

Leighton was guilt-ridden and anxious throughout most of his time in Hiroshima. He reported an encounter with a survivor who made an especially vivid impression on him and who admonished him, "If there is such a thing as ghosts, why don't they haunt the Americans?" Leighton added, "Perhaps they do" (Leighton N.D. 24). Leighton felt that "the ghosts of Hiroshima can [still] have their reckoning." He saw in Hiroshima a "prevue of the next war," which would be much closer to home. He looked at Hiroshima's ruins and,

could see other streets in days to come, looking just the same, but their names like 'Broadway,' 'Constitution Avenue,' 'Michigan Avenue' and 'Kearny Street.' And... under the rubble of those places, charred bodies that bore names with far more meaning than those of any street, and yet not one surviving except perhaps for a little while to endure pain and the realization of slow death (Leighton N.D. 25)

Shaken, Leighton vowed to warn the people who had not seen Hiroshima what a nuclear weapon could do to a human city.

Leighton, however, did not try to return to Hiroshima and Nagasaki, nor did he wish to work with survivors on healing their mental wounds. Instead, upon his return to his academic posts in the US, Leighton turned to

politics and peace activism, using his clout as a psychiatrist to warn against the dangers of human aggression. Thus, Leighton, who was active in various physicians' peace organizations, proposed in 1949 the establishment of "behavioral weather stations" around the globe. The stations would use the methods of morale studies to constantly monitor levels of national and international aggression and hostility. As he wrote,

Social sciences have potentialities for development and use in human welfare that are comparable with what has been realized in other fields where the scientific method has been employed for several hundred years...The need for better human relations both within nations and between nations is urgent... It involves the twin problems of preventing war and utilizing present day knowledge and skills more effectively for the benefit of all mankind (Zwigenberg 2023, 82)

Not much came out of these initiatives and Leighton returned to academia. Furthermore, the insights he gained in Hiroshima did not stop him from working with the military again. In the early 1970s, Leighton joined the Committee on the Effects of Herbicides in Vietnam, which examined the impact of Agent Orange on South Vietnamese people (Zwigenberg 2023, 237).

Kubo Yoshitoshi was similarly shaken by the American attack on Hiroshima. Like Leighton, his research addressed politics, not healing. Unlike most American researchers, however, he did work with survivors. Kubo, who served with the Imperial Navy, was at his base in Yokosuka when the A-bomb was dropped, but his family was in Hiroshima on 6 August 1945, where his mother, wife, and eldest daughter were exposed to the bomb's effects. Kubo could

not get in touch with his them almost until October, when he went to visit. He recalled, "I was so shocked by the destruction, I could not even shed a tear" (Zwigenberg 2023, 198). Kubo connected his turn to psychological research on the bombing survivors directly to his personal and family experience. As he recalled in 1977, he was convinced of the importance of the survivor experience to the goal of peace: "My research led me to believe that the feelings and attitudes of A-bomb survivors toward the atomic bombing and the war should be pursued by all fields of science, not to mention psychology and sociology, and that there was much potential for change [in general attitudes] as the period of the bombing and defeat in the war passed" (Zwigenberg 2023, 198). This statement was no doubt colored by his later experiences, but one could see similar rationales in Kubo's writing as early as 1950. Kubo made it his life work to uncover the "feelings and attitudes of A-bomb survivors toward the atomic bombing." Kubo saw the insertion of *hibakusha* voices and opinions into public debates on nuclear disarmament as the ultimate goal of his research. Significantly, Kubo was instrumental in pushing for medical and social surveys of the *hibakusha*, though he limited his own contribution to researching the transformative effect of survivors' experience with their belief in peace and reconciliation. Critically, Kubo pursued *hibakusha* research to forward the cause of peace as a tool for "change in general attitude" of the public towards war. Curing survivors of their mental angst came second.

Another Japanese researcher, psychiatrist Konuma Masaho, similarly dedicated himself to nuclear research. Like Kubo, Konuma was not in Hiroshima when the US dropped the A-bomb, but in his military post at the Shimofusa Sanatorium to the northeast of Tokyo. After his move to Hiroshima University, he dedicated almost a decade to A-bomb research. In his case, it was the general hostility of the psychiatric profession to victims, coupled with

the profession's German influenced prejudice against psychological ailments and preference of somatic explanations, that made for a very different understanding of *hibakusha* suffering. As Nakamura Eri astutely demonstrated, Japanese military doctors were quite hostile to mental patients. This was the result, first, of the Japanese military emphasis on "spirit" in the 1930s and 1940s. Japanese psychiatrists by and large toed the ideological line that Japanese soldiers' supposedly inherent mental superiority and Japanese spirit (*Yamato damashii*) made them immune to the kind of mental breakdown seen in Western armies during the First World War (Nakamura 2018). They used *Yamato damashii* as an explanation for the supposed lack of mental injuries in the Imperial Army (the reality of course was that soldiers were, in all probability, simply not diagnosed). This ideological bias was coupled with Japanese psychiatry's adherence to the German tradition, which led to wide-scale dismissal of mental injuries during the war. There was only one military psychiatric hospital—the Kōnodai hospital in Chiba—which, throughout the war, admitted a mere ten thousand cases from the ranks of an army that numbered in the millions and that fought for almost fifteen years. Military psychiatry's status was not very high, and doctors rarely acknowledged psychological injuries. Significantly, Japanese doctors used the exact same language as German doctors to dismiss soldiers' claims for compensation. Soldiers who claimed to be mentally hurt during their service were diagnosed as having suffered from a "compensation neurosis" (*hoshō shinkeishō*), which corresponded to the German *Rentenneurose* (Zwigenberg 2023, 163). That is, it was the obsession with monetary compensation, rather than the violence of war, that led to their symptoms.

When he was in the military, Konuma mostly attributed mental syndromes to physical head injuries. But, unlike most of his colleagues, he displayed some openness to other explanations.

While in Hiroshima, Konuma conducted large scale surveys of survivors. But, coming as he did from a military background, and despite his many proclamations to the contrary, he almost always preferred somatic explanations to his patients' neuroses and related psychiatric issues. In his Hiroshima research, Konuma looked, for instance, for brain lesions, which he claimed were hard to diagnose. He also related some of what he found to the probable impact of radiation. Patients' syndromes, he cautioned, "are very often looked upon as simply psychogenesis or neurotic; especially when there is [*sic*] no foci symptoms with skull fractures" (Konuma 1951, 364). Konuma insisted that "head trauma often has a *neurotic coating* but it is not just neurosis" (my emphasis -Hiroshima Daigaku 1970, 12). Unsatisfied with "simply psychogenetic" explanations, he argued that damage to the central nervous system, possibly due to radiation, was the cause of latent and persisting psychiatric issues. In other cases, he saw this damage because of possible "heavy brain concussion, which must in turn cause injuries in the midbrain-hypophyseal system" (Konuma 1951, 369). Much of this prognosis can be traced back to Konuma's training. This was a classic "shell shock" assessment that looked for concussions, damage from shelling, and other physical factors as explanations for persistent psychiatric issues. German psychiatrists persisted with such diagnoses well into the 1960s when assessing veterans of the Wehrmacht. Konuma reached a similar conclusion in all research he produced on head injuries and relied on German psychiatric literature as corroboration. Such hesitancy was made worse by the complications of radiation and its myriad impacts, which were not well known at the time. Thus, in Konuma's research, survivors' psychological hurt was lost in a diagnosis that focused on the physical rather than the mental.

Thus, for all three researchers examined—and one may add to this brief list people like Irving

Janis in the American RAND corporation—who researched *hibakusha*, victims’ suffering was either utilized to further other goals (peace and reconciliation, US Cold War research, etc.) or obscured by an emphasis on objective, biologically-based scientific explanation or “simply psychogenic” suffering. Significantly, if one was to look at research done on WWII veterans in the US, Germany, and other postwar locations, as well as bombing victims and Holocaust survivors, they would find that Kubo, Leighton, Konuma, and others were not exceptional. Up until the 1970s, the dismissal of long-term psychological impacts of war and violence was quite widespread. In 1972, for instance, Japanese psychiatrist Shimoyama Tokuji wrote on a new syndrome he was learning about from colleagues in Europe called “Psychopathological political persecution victims’ syndrome” (*Seijiteki hibakugaisha no seishin byōri*). Shimoyama, who translated Victor Frankl’s work into Japanese, explained that contrary to conventional thinking that assumed syndromes would subside with time, psychiatrists were finding a “post-concentration camp syndrome” (*Kyōseishūyōjo’ kōishō kōgun*) in returning prisoners who, years after the fact, still suffered from anxiety, doubts, and depression” (Shimoyama 1972, 20). Significantly, this observation was made in a comment on an Auschwitz exhibition, which was slated to come to Hiroshima and other locations. Robert J. Lifton was in contact with the “concentration camp syndrome” researchers Shimoyama met in Europe and connected the Holocaust and Hiroshima in his work. It was these connections, as well as the connection to Vietnam Veterans’ research that would lead to the recognition of PTSD as a mental health condition.

The Empire of Trauma

Given the various research trajectories

examined above and the lack of research focused on care and healing, one may be tempted to ask whether the medical profession simply denied victims’ suffering, and, if yes, why? If one looks at the 1945 USSBS research and the way it instrumentalized and weaponized survivors’ psychology in service of US bombing research, this may seem like a logical conclusion. However, the picture is more complex. For figures like Leighton, Konuma, and Kubo, the question was not of denial of suffering. Researchers acknowledged the psychological price of the A-bomb, but, crucially, their research priorities were different. Lifton’s research changed this equation. However, this fact should not posit Lifton as a white savior swooping down to Hiroshima to teach the locals how to do psychiatry right (and he did not see himself that way either; he was very aware of his cultural position as an outside researcher); the issue was far more complex.

It is nevertheless hard to exaggerate Lifton’s importance to trauma studies. Lifton, who shifted research focus onto the victims of war, became a foremost expert on survivor trauma and a key figure in the recognition of PTSD as a mental health condition. In a recent *New Yorker* article, Masha Gessen quotes Charles Strozier, who wrote in *Death in Life’s* chapter on the psychology of survivors, “[Lifton’s research] has never been surpassed, only repeated many times, and frequently diluted in its power. All those working with survivors of trauma, personal or sociohistorical, must immerse themselves in his work” (Gessen 2023). Lifton was the right man at the right time, and his meeting with Kubo came at an opportune moment. The months following Lifton’s 1962 meeting in Hiroshima saw both the execution of Adolf Eichmann and the Cuban Missile Crisis, which raised military tensions between the US and USSR. Lifton’s work thus arrived amidst a wave of antinuclear and antiwar psychology that was crucial in raising awareness of the plight of victims. This shift

created what Lifton called an “openness to survivor trauma,” and led directly to the revolt of the psychological professions against the “malignant normality” of ever-present war (Zwigenberg 2023, 223).

However, because Lifton was so important in the history of trauma and the oversized impact of trauma on our understanding of what happened in 1945, we often fail to see how different the understanding of trauma and survivor experience was before the 1980s. The rise of concentration camp survivor syndrome and the later introduction of PTSD has changed our understanding of suffering and violence. The researchers that looked at survivor trauma prior to the 1980s had concerns and ideas about the meaning of survivors’ suffering that no longer “fit” our understanding of what psychological research should be, which arguably leads historians to neglect their efforts. Yet, we should not dismiss these efforts. *Nuclear Minds* seeks to understand these researchers on their own terms. It aims to better understand the way that science and politics intersected to produce new knowledge about the A-bomb and its effects on the human psyche. Specifically, I examine the ways the psychological impact of the bomb on survivors was understood before the emergence of trauma studies and PTSD as primary categories in our studies of the impact of war on individuals and societies. As Svenja Goltermann has argued in her work on German military veterans, “trauma was an extremely marginal interpretive category” amongst mainstream psychiatrists in postwar Germany (Goltermann 2017, 283). Psychological and psychiatric research on Hiroshima and Nagasaki, I argue, likewise rarely referred to trauma or similar categories. Institutional and political constraints—most notably the psychological sciences’ entanglement with Cold War science—either led researchers to concentrate on short-term damage and somatic reactions and even, in some cases, to the denial of victims’ suffering. As Dagmar Herzog and

others demonstrated, similar trajectories and constraints led doctors to deny Holocaust survivors’ anguish (Herzog 2014, 128). In the nuclear case, the unknown impact of radiation further complicated the diagnostic picture.

The result of such constraints was that very few doctors tried to ameliorate suffering. The question of denial, both as an ethical and a historical question, stands at the heart of the book. However—and I cannot stress this enough—I do not seek to retroactively condemn doctors for their supposed “blindness” to trauma. Quite the contrary. It was not only doctors that “failed” to issue the right diagnosis (though some did minimize and deny suffering). The victims’ experiences as well did not always conform to our contemporary expectations. As Eva Hofmann argued, writing about her survivor parents, one cannot force the subjective experiences and history of victims into “a straitjacket of retrospective diagnostic ascription” (Zwigenberg 2023, 159). Furthermore, we should not employ the category of trauma uncritically in a non-Western context, where emotional suffering have been *understood* and *expressed* differently. Thus, *Nuclear Minds* aims, first, to understand the historical, cultural, and scientific constraints in which researchers and victims were acting, and second, to explore the way suffering was understood before the availability of PTSD as a category and in different cultural contexts. In sum, the book is a pre-history of PTSD with a specific focus on the psychological impact of war on non-Western minds, which integrates nuclear research and Japan into an emerging body of work on the history of trauma.

The main issue *Nuclear Minds* seeks to tackle is the limitations of what Didier Fassin and Richard Rechtman vividly called the *Empire of Trauma* (Fassin and Rechtman 2009). As Fassin, Rechtman, and others have argued, our focus on trauma and PTSD as an all-encompassing explanatory mechanism

has blinded us to the diverse ways humans react to war and disasters. Indeed, it is hard to exaggerate trauma's impact. The concept of PTSD had an enormous influence on Western and, subsequently, global society. It altered our understanding of armed conflict and the price of war. "The discourse of trauma," Andreas Huyssen wrote, "radiates out from a multi-national, ever more ubiquitous Holocaust discourse, [and] is energized... by the intense interest in witness and survivor testimonies, and then merges with the discourses about AIDS, slavery, family violence, and so on" (Zwigenberg 2023, 13). At this point in our history, it is almost impossible to untangle trauma from the various historical trajectories and social phenomena that we have applied the category to.

There are many good reasons for using trauma and PTSD in understanding current conflicts. Yet, the application of trauma discourse across time and cultures is problematic. Trauma undoubtedly has its uses, and many excellent scholars have developed a vast array of theoretical and historiographical methodologies based on the category. I do not wish to invalidate the category or much of this body of work, to which I made my modest contribution as well (Zwigenberg 2014). The concept, however, should be "handled with care." Much more than in the case of physical disease, the way a person interprets their symptoms has a critical impact on the nature of psychiatric disease. Such interpretations are culturally and historically determined. As philosopher of science Ian Hacking argued, the introduction of new diagnostic categories creates what he calls a "looping effect": novel forms of experiences, new ways to relate to one's world, and new ways of thinking and expression (Zwigenberg 2023, 19).

Looking beyond trauma, I argue, uncovers the multiplicity of responses and fields impacted by and connected to the history of reactions to the atomic bombing. For instance, if one looks at

initial surveys and at the language and ideas used by researchers and victims at the time, the importance of the concept of morale and its psychological derivatives is immediately apparent. The mass aerial raids on enemy civilians were mostly conceived as an attack on enemy's morale. In using this amorphous psychological concept, bomber commands and theorists alike conflated individual and communal psyches when they aimed at breaking the "fighting will" and minds of the population. These practices and their evaluation by USSBS psychological experts directly led to the normalization of the nuclear arms race with its various psychological and other tolls. In addition, if we take such expert's research (Leighton being a prime example) seriously, we see that psychological experts were both responsible for creating and evaluating the apparatus of morale bombing, and were the first to challenge the normality of a world that was living under the Damocles sword of nuclear annihilation. As a result, psychological categories became important concepts in our understanding of the emerging nuclear order.

Such insights are only possible if we put aside our present understanding of human suffering and try to understand historical research on its own terms. This does not mean dismissing victims' suffering. Rather, I argue that we need to understand the mental suffering caused by the A-bomb using different interpretive frameworks. This is even more important when we deal with victims who had no awareness of trauma. PTSD and trauma have played an enormously important role in bringing to light and giving a medically and legally sanctioned language to victims' suffering. Yet, as the Kubo-Lifton meeting and the USSBS encounters in the ruins of Hiroshima suggest, trauma is not sufficient as an interoperative historical category, and may have hindered our understanding of what happened in August 1945.

References

Herzog, Dagmar. "The Obscenity of Objectivity: Post-Holocaust Antisemitism and the Invention-Discovery of Post-Traumatic Stress Disorder," in Nitzan Lebkovic and Andreas Killen (eds.), *Catastrophes: A History and Theory of an Operative Concept*. Berlin: De Gruyter Oldenbourg, 2014, 128-55.

Hiroshima daigaku igakubu shinkei seishin igaku kyōshitsu (ed.). *Kyoushitsu kenkyuu gyouseki mokuroku: Konuma masuho kyōju kaikou 20 shūnen narabini teinen taikan kinen*. Hiroshima: Hiroshima daigaku igakubu shinkei seishin igaku kyōshitsu, 1970.

Fassin, Didier and Rechtman, Richard. *The Empire of Trauma: An Inquiry into the Condition of Victimhood*. Princeton University Press, 2009.

Gessen, Masha "How to Maintain Hope in an Age of Catastrophe," *New Yorker* (November 12, 2023) <https://www.newyorker.com/news/the-new-yorker-interview/how-to-maintain-hope-in-an-age-of-catastrophe>. Accessed November 30, 2023.

Goltermann, Svenja. *The War in their Minds: German soldiers and their Violent Pasts in West Germany*. Trans. By Schmitz, Philip. Ann Arbor: University of Michigan Press, 2017.

Konuma, Masuho. "Studies on the after-Effects of Brain Traumata Observed During the Last Three Warfares (sic.) Implying Japan." *Psychiatry and Clinical Neurosciences*. Vol. 4, No. 4. (1951).

Lifton, Robert to Riesman, David. 10 April 1962, Robert Jay Lifton papers, Box 15, Folder 8 (1962), Manuscripts and Archives Division, New York Public Library, Astor, Lenox, and Tilden Foundations (henceforth NYPL-MSA).

Leighton, Alexander. "The Sown Wind (On Hiroshima)," unpublished manuscript, Folder 11, Box 1, Lawrence C. Vincent Collection, University of Colorado Archives at Boulder Libraries, Colorado.

Lifton, Robert J. *Death in Life: Survivors of Hiroshima*. Durham: University of North Carolina Press, 1968, 1991.

Nakamura, Eri. *Sensō to torauma: Fukashikasareta nihonhei no sensō shinkeishō*. Tokyo: Yoshikawa Kōbunkan, 2018.

Selden, Mark. "A Forgotten Holocaust: US Bombing Strategy, the Destruction of Japanese Cities & the American Way of War from World War II to Iraq," *Asia-Pacific Journal: Japan Focus*, (May 2, 2007) Vol. 5, Issue 5 <https://apjff.org/-Mark-Selden/2414/article.htm> l. Accessed November 30, 2023.

Shimoyama, Tokuji. "Ningen toshite nani ga towarete iru - ikinokotta hitotachi no kōishou, in *Aushubittsu ten*, Hiroshima aushubittsu iinkai (hen). Tokyo: Asahi Shinbunsha, 1972.

Zwigenberg, Ran. *Hiroshima: The Origins of Global Memory Culture*. Cambridge University Press, 2014.

Zwigenberg, Ran. *Nuclear Minds: Cold War Psychological Science and the Bombings of Hiroshima and Nagasaki*. University of Chicago Press, 2023.

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