

Special Topic 1: The A-bomb and Medical History

Records and Diaries Regarding Atomic Bomb Casualties Written by Medical Doctors and Scientists

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ABSTRACT: There are multitudes of records and diaries of medical doctors and medical scientists who witnessed the disaster of atomic bomb and were faced with the atomic bomb casualties. These records include different types of documents such as doctor's personal notes, records of diagnosis and treatment, academic investigations, and doctors' own experiences of being bombed. Scattered over Japan and the U.S., these records reveal the intentions and the viewpoints of the recorders. The different views in the records show that the doctors and medical scientists were not monolithic and give us a clue to thinking about the problem of medical treatment for atomic bomb survivors. This essay introduces some of the medical records pertaining to atomic bomb casualties and considers the recorders' stances and viewpoints.¹

KEYWORDS: Atomic bomb, medical record, bombed doctor, examination and treatment, Atomic Bomb Casualty Commission

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¹ This essay is largely derived from a further essay by the author (in Japanese). Maika Nakao "Medical Records of Atomic Bomb Victims Written by Medical Doctors and Medical Scientists" (Ishi, Igakusha no Hibaku Kiroku) in Kawaguchi Takayuki ed. *Cultural Dictionary for Reading "Atomic Bomb" ("Genbaku" wo Yomu Bunka Jiten)*, Seikyū-sha, 2017.

1. Bombed Doctors

Many of the doctors who conducted rescue activities among atomic bomb victims (*Hibakusha*) soon after the bombings were also victims of the bombings. They, the bombed doctors (*Hibaku Ishi*), described their disastrous experiences in vivid detail.

Shirabe Raisuke (1899–1989), who was professor in the first department of surgery at Nagasaki Medical University handed down the *Nagasaki Medical University Atomic Bomb Disaster Reconstruction Diary (Nagasaki Ika-daigaku Genbaku Hisai Fukkō Nisshi)*.² Shirabe wrote his diary from August 9 to August 12, and from September 26 to October 26, 1945. On other dates at this time, he underwent painful experiences such as the death of his older son and the discovery of his second son's skeleton, and his own experience of the onset of Atomic Bomb Syndrome (*Genshi Bakudan Shō*), during which time he was close to death. He added details to the missing diary dates in 1970 although the style of writing is more detached in tone and different from the diaries written in 1945, which depict his experience vividly. It is obvious that Shirabe devoted himself to the medical treatment of atomic bomb victims without having information about the bomb or having time to think about it. As the Nagasaki Medical University was located around 600 meters from the center of the explosion, many doctors, staffs and students were killed or seriously injured. The doctors at the Nagasaki Medical University can also be categorized as medical scientists but they lacked equipment and manpower. Shirabe compiled a research report of the outcome of a survey (*Statistical Observations of Atomic Bomb Casualties in Nagasaki*) on around 6,000 victims from October to December 1945. The survey began because of the demands of the occupation forces as described in the following section.³

Another record written by a bombed doctor is Hachiya Michihiko's *Hiroshima Diary (Hiroshima Nikki)*.⁴ Hachiya Michihiko (1903–1980) was the director of the Hiroshima-Teishin Hospital. The hospital was located 1.37 km from the center of the bomb explosion and became the dominant hospital for atomic bomb survivors in Hiroshima together with the Hiroshima Red Cross Hospital, which was located 1.6 km from the center of the explosion. In *Hiroshima Diary*, Hachiya describes 56 days of his experience as a hospital director in Hiroshima from August 6. He recalled his experience several years later and this was serialized in *Teishin Igaku* from 1950 to 1952 and later compiled as a book. It illustrates his sincere

² Shirabe Raisuke, *Nagasaki Medical University Atomic Bomb Disaster Reconstruction Diary (Nagasaki Ika-daigaku Genbaku Hisai Fukkō Nisshi)*, Nagasaki Daigaku Igakubu Genbaku Fukkō Gojū Shūnen Igaku Dōsō Kinen Jigyokai, 1995.

³ Shirabe Raisuke, Yoshizawa Yasuo, *Testimony of a Doctor: An Experience of the Nagasaki Atomic Bomb (Ishi no Shōgen: Nagasaki Genbaku Taiken)*, Tokyo Daigaku Shuppankai, 1982.

⁴ Hachiya Michihiko, *Hiroshima Diary (Hiroshima Nikki)*, Asahi Shinbunsha, 1955.

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efforts to help atomic bomb survivors. Interestingly, the Atomic Bomb Casualty Commission (ABCC) doctor, Warner Wells, offered a translation of his diary and, with the assistance of Neal Tsukifuji for translation, it was published in English in 1955.⁵ Although this translation shows a good relationship between the Japanese and American doctors, there is further room for examining the purpose behind it, and the outcome of the translation. *Hiroshima Diary* has been translated into 18 languages to date.

The fact that most of the doctors' records were written several years or decades after the atomic bombing indicates that it was difficult for the doctors of the bombed sites to keep adequate records immediately after the bombing. Yasuyama Kōdō (1888–1958), director of Ōmura Navy Hospital, which functioned as a center of medical treatment for atomic bomb victims in Nagasaki, wrote of that difficulty in his *Document of Nagasaki Atomic Bomb (Nagasaki Genbaku no Kiroku)* in 1951 as follows: “When a hospital admits 758 patients at one time, it unavoidably gets in the way of writing records.”⁶ Akizuki Tatsuchirō (1916–2005), director of the Urakami Daiichi Hospital (later renamed Saint Francis Hospital), left several important testimonies, such as *Concentric Circle of Death (Shi no Dōshin-en)*. In it, he described the travail and pride of a bombed doctor. “Doctors of Hiroshima and professors and doctors of Nagasaki Medical University confronted the radiation syndrome that took peoples' lives one after another while having been bombed and exposed to radiation themselves. That was, without instruments and material, with neither medical practice nor medicine, [just] humans' lives and their bloody crying and moaning.”⁷ Their experiences were totally different from the medical scientists from the imperial universities. Hida Shuntarō (1917–2017), an army medic and a bombed doctor who worked at Hiroshima Army Hospital, also left many records; Hida's writing appeals to the reader about the cruelty of an atomic bomb that made humans an unhuman shape. “The face is, oh, is that the face? Weirdly big face, both eyes bloated, lips puffed up by half; oh the face, any strand of hair on burned head. I caught my breath and backed away from it. What I saw was that the old cloth was the human's undressed skin, the black water was blood. There were burned human meat blouses with dangling skin from their bodies that could not be distinguished as male, female, or soldier.”⁸ Hida raised an alarm over low level radiation exposure early on and, particularly after 3.11 Fukushima nuclear disaster, appealed to the public about the threat of internal radiation exposure.

⁵ Hachiya Michihiko, Warner Wells ed., *Hiroshima Diary: The Journal of a Japanese Physician, August 6–September 30, 1945*, University of North Carolina Press, 1955.

⁶ Kodo Yasuyama, *Document of the Nagasaki Atomic Bomb (Nagasaki Genbaku no Omoide)* Ayumi shuppan, 1984.

⁷ Akizuki Tatsuchirō, *Concentric Circle of Death (Shi no Dōshin-en)*, Kodansha, 1972.

⁸ Hida Shuntarō, *The Day Hiroshima Died (Hiroshima no Kietahi)*, Nicchu Shuppan, 1982.

The bombed doctor who tried to maintain a scientific investigator's perspective while devoting himself to rescue activity was Nagai Takashi (1908–1951), a medical doctor who worked at Nagasaki Medical University as a radiologist. Nagai had already been given only three years to live because of suffering chronic myelogenous leukemia caused by radiation exposure from the X ray machine when he was bombed, and therefore he was very familiar with the effects of radiation on the human body. Nagai's report as a medical scientist was the *Atomic Bomb Rescue and Relief Report*, which reports the activity of the Number 11 Medical Team (Physical Therapy Team) of Nagasaki Medical University from August to October 1945. The report consists of the diagnoses of 125 patients, the outline of radiation sickness and treatment methods, and future prediction and measures, as well as reflections. Although it is an academic report, Nagai described his personal feelings in comments throughout the report and he concluded: "I would like to use the mechanism of the atomic bomb, as a power source, and pursue research on it to contribute to my culture. Turn a misfortune into a blessing (*Tenka Ifuku*). (...) Then if a new happy world could be created, many victims' spirits would also be healed." This is the prototype of Nagai's thought, which was to be elaborated further in his later writing. Nagai consistently tried to find meaning in the bombing and tried to convert it to something positive. Nagai started writing essays that combined his experience and scientific explanations, and this made him the most famous bombed doctor during the occupation era. Nagai's bestseller book *The Bells of Nagasaki*, which was written in 1946 and published in 1949 contains the following passage. "The atom was detonated on humans for the first time. What symptoms could it cause? The patients we diagnose now are very new materials in the history of medicine. Missing this experience means not only that we default on our task, but also means abandoning precious research and that's an unforgivable act as a scientist."⁹ Nagai tried to contribute to science by regarding his bombed patients as research materials. In other words, even if he could not save the lives of patients in front of him, their death and sorrow would not be in vain if he could utilize their cases as scientific materials. It was Nagai's situation as a doctor and as a medical scientist who had been bombed that created this way of thinking.

2. Medical records of American and Japanese scientists

Just as the doctor's record is written for the patient's treatment or for handing down the truth to posterity, the medical scientist's record is written for scientific purposes and for contributing to medical progress. Although these purposes are not necessarily contradictory and it is sometimes difficult to separate them, they have different orientations. Scientific investigations into the atomic bomb casualties were conducted by both Japanese and American

⁹ Nagai Takashi, *The Bells of Nagasaki (Nagasaki no Kane)*, Hibiya Shuppansha, 1949.

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scientists yet there was a conflict between them.

Scientific investigation on the casualties started no later than mid-August. Soon after the bombing, the Japanese Imperial General Headquarters, the army, and the navy organized several investigation teams to assess the effects and the casualties of the bombing. Many scientists from imperial universities took part in the investigation. For example, teams from Tokyo Imperial University and Kyoto Imperial University arrived in Hiroshima and teams from Kyushu Imperial University and Kumamoto Medical University arrived in Nagasaki before the end of the war on August 15th. Before, during, and after the war there were active scientific investigations in the bombsite, including those of medical field.¹⁰ In mid-September, the National Research Council of Japan (*Gakujutsu Kenkyū Kaigi*) set up a Special Committee for the Investigation of the Atomic Bomb Disaster (*Genshi Bakudan Saigai Cyōsa Tokubetsu Inkaï*) and this became a parent organization of Japanese scientific investigations into the atomic bomb casualties. The crucial figure among the Japanese medical scientists was Tsuzuki Masao (1892–1961), a leading authority on the biological effects of radiation in Japan at that time. Tsuzuki was rear admiral of the Naval Medical Corps and professor at the Tokyo Imperial University in 1945. On August 24, 1945, when an actress named Naka Midori died in the Tokyo Imperial University Hospital after she suffered from the atomic bomb explosion in Hiroshima, Tsuzuki coined the term “Atomic Bomb Syndrome (*Genshi Bakudan Shō*).” The documents of Tsuzuki’s activity are compiled in *Hiroshima Shinshi Shiryōhen 1*.¹¹

The United States had a strong interest in the effects of the atomic bomb and they also embarked on scientific research into the bombsite. The U.S. Army, Navy, and Manhattan District teams came to Hiroshima and Nagasaki in early September 1945 to study atomic bomb casualties. These teams were unified as the Armed Forces Joint Commission for Investigating Effects of the Atomic Bomb in Japan. The Americans requested Japanese medical scientists to support their research and the Japanese scientists responded it. In Japan, the commission was called the Japanese American Joint Commission (*Nichibei Gōdō Cyōsa Dan*) and Tsuzuki Masao headed the Japanese delegation. However, their positions and situations as scientists were very unequal. During the occupation era (1945–1952), the Japanese scientists could not conduct their scientific research satisfactorily. Given the inequality between the Japanese and the Americans, the American scientists of the Joint Commission “borrowed” or “stole” huge amounts of medical records, such as clinical records and specimens from Japanese scientists. These records were sent to the U.S. Armed Force Institute of Pathology (AFIP) and returned back to Japan only in the 1960s and 1970s after their absence was problema-

¹⁰ Sasamoto Yukuo, *Atomic Bomb Surveys Under American Occupation: How Japan Became a Nuclear Aggressor (Beikoku Senryōka no Genbaku Chōsa—Genbaku Kagaikoku ni Natta Nihon)*, Shinkansha, 1995.

¹¹ Hiroshima-shi, *Hiroshima Shinshi Shiryōhen 1: Tsuzuki Shiryō*, Hiroshima-shi, 1981.

tized by doctors in Hiroshima.¹² Moreover, the Japanese medical scientists were not allowed to publish their academic articles on atomic bomb casualties during the occupation era.¹³ Averill Liebow (1911-1978), a medical doctor who was one of the leading figures of the Joint Commission, left his diary from when he was in Japan from September to December 1945.¹⁴ Liebow's diary provides some details regarding how the Joint Commission was formed and how they conducted their investigation.

To study the long-term effects of the atomic bomb on the human body, the United States established the ABCC under the National Academy of Science (NAS) in 1947.¹⁵ ABCC also needed Japanese help and required Japanese scientists and other professions to collaborate.¹⁶ In 1948, the Japanese National Institute of Health (JNIH) joined the research program of ABCC and established the Atomic Bomb Effect Research Institute as a counterpart of the ABCC in Japan. ABCC did not provide medical treatment while they collected medical data from survivors, and thus have achieved notoriety among these survivors.

The official documents of the ABCC, stored in the archives of the National Academy of Science, describe how their policy was created and changed. The Texas Medical Center Library (TMCL) has been collecting diaries, letters and notes of American doctors who

¹² In 1973, 9,060 medical record holders, 1,205 Photographs, 35 formalin-fixed specimens, 284 paraffin-blocked specimens, and 669 microscope slides were returned to Hiroshima and Nagasaki and stored in the Hiroshima University Research Institute for Radiation Biology and Medicine and the Nagasaki University Atomic Bomb Disease Institute. Although the repatriated records in 1973 are well documented, some records were returned in the late 1960s according to Hiroko Takahashi, *Present Situation of the Documents on Atomic Bomb and Nuclear Test Casualties (Genbaku, Kaku Jikken Higai Kankei Shiryō no Genjō*, Rekishi Hyoron), Vol. 739 (2011). Susan Lindee "The Repatriation of Atomic Bomb Victim Body Parts to Japan: Natural Objects and Diplomacy," *Osiris*, Vol. 13 (1998), 376–409.

¹³ Therefore, the report of the Special Committee for the Investigation of the Atomic Bomb Disaster was partly published in 1951 and fully published in 1953. Japan Science Council ed., *Collection of Investigation Reports on Atomic Bomb Disaster (Genshi Bakudan Saigai Cyōsa Hokoku)*, Vols. I & II, Japan Society for the Promotion of Science, 1953.

¹⁴ Averill A. Liebow, *Encounter With Disaster: A Medical Diary of Hiroshima*, W. W. Norton & Company, 1970.

¹⁵ ABCC was funded by the Atomic Energy Commission (AEC). It was reorganized as the Radiation Effects Research Foundation (RERF) in 1975 and has been equally funded by both the American and Japanese governments since then.

¹⁶ The means of collaboration has been examined by several scholars. John Beatty, "Scientific Collaboration, Internationalism, and Diplomacy: The Case of the Atomic Bomb Casualty Commission," *Journal of the History of Biology* 26 (1993), 205–231. Susan Lindee, *Suffering Made Real: American Science and the Survivors at Hiroshima*, The University of Chicago Press, 1994. Yukuo Sasamoto, *Beikoku Senryōka no Genbaku Chōsa—Genbaku Kagaikoku ni Natta Nihon (Atomic Bomb Surveys Under American Occupation: How Japan Became a Nuclear Aggressor)*, Shinkansha, 1995.

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worked for ABCC with numerous contributions from geneticist and former ABCC scientist William J. Schull (1922–1917). These personal documents show us how the American doctors felt in Hiroshima and Nagasaki. They also help us to reflect on how doctors who were involved in the examination of atomic bomb survivors thought about the problem of “examination without treatment.” The TMCL digitalized William Moloney’s diary from April 1952 to February 1954 when Moloney was in Hiroshima. Moloney (1907–1998) was a hematologist who started work at the Hiroshima ABCC in the same month as the occupation ended. While the criticism against ABCC surfaced in the Japanese media, he attempted to provide medicine for a young leukemia patient and received favorable coverage in Hiroshima’s local newspaper although he was unable to save the patient’s life. Moloney’s diary indicates that he studied Japanese, had close contact with local doctors and influential persons, and describes what he felt toward survivors of the atomic bomb.¹⁷

Like Moloney’s diary, the diaries of the American scientists and doctors at the ABCC reveal different types of difficulties that were experienced.¹⁸ James N. Yamazaki, a Japanese-American doctor who stayed in Nagasaki from 1949 to 1951, wrote of his experience of investigating the children of those who had suffered from nuclear weapons. The ABCC hired many second generation (Nisei) Japanese-Americans who were often placed in a difficult situation between the two countries and were discriminated against by both Japanese and Westerners. Yamazaki cited several examples of how he and his family were discriminated against by the allied forces while he was in Japan. He also had to cope with the Japanese hostility toward Americans. “From the moment of my arrival (in Nagasaki), I sensed the need to get busy. The first thing to do was to deal with the inevitable hostility of people still overwhelmed with anger after the bombing. Many survivors thought we had come to use them simply as guinea pigs, and that our sole interest was to gain information to protect Americans in the United States in the event of an atomic attack. They were skeptical about our real concern for their well-being.”¹⁹ However, as a pediatrician who had just been sent

¹⁷ The description of the Moloney diary in TMCL notes that “Moloney records his struggles with understanding the Japanese culture, his frustration at not being allowed to treat the survivors he studied, and his concerns, fears, hopes and revelations as he dealt with the bombing survivors and their children.” Moloney, William, “MS#73 William C. Moloney, M.D., papers; 1952–1954” (1954). MS#73 William C. Moloney, M.D., papers; 1952–1954. 1. <https://digitalcommons.library.tmc.edu/moloneyjournal/1>

¹⁸ William J. Schull, *Song Among the Ruins*, Harvard University Press, 1990. James N. Yamazaki, *Children of the Atomic Bomb: An American Physician’s Memoir of Nagasaki, Hiroshima, and the Marshall Islands*, Duke University Press, 1995. Ray C. Anderson, *A Sojourn in the Land of the Rising Sun, Japan, the Japanese, and the Atomic Bomb Casualty Commission, My Diary: 1947–1949*, Elan Press, 2005.

¹⁹ James N. Yamazaki with Louis B. Fleming, *Children of the Atomic Bomb: An American Physician’s Memoir of Nagasaki, Hiroshima, and the Marshall Islands*, Duke University Press, 1995, p. 2.

to Japan from his employer's hospital in Cincinnati, he was unaware of the real intentions of the research program in which he was involved. He was not informed about important information regarding scientific research on atomic bomb casualties. "I did not know it was Dr. Tsuzuki who had mobilized an immediate research program by Japanese doctors working with the survivors of the atomic bomb attacks. I did not see the excellent report of the Japanese doctors until I returned to Japan in 1989. Nor did I know that it was Dr. Tsuzuki who, with Dr. Warren, had directed the vast study of the short-term effects of the bomb radiation undertaken by American and Japanese specialists just two months after the bomb fell ... It was this Joint Commission's report that I did not see until 1956. I did not even know it existed when I met with Dr. Tsuzuki (in 1949)."²⁰ The doctors of ABCC knew their research project but may not have known how their research was planned and how it was going to be used by the country.

Conclusion

So far, we have seen a part of the medical records and diaries regarding atomic bomb casualties. The records and diaries of doctors teach us several things.

First, many doctors in Hiroshima and Nagasaki recorded their experiences for humanity. Every doctor who was at the bombsite in August 1945 knew that they were experiencing something that had never happened before. This unprecedented situation found them recording their experience amidst the hell of living through it, or even several years after the event. These accounts reflect the sense of responsibility of those who experienced something completely unique in world history. At the same time, they did not know what would happen to the survivors and how they would be treated. The mechanism of the effects of radiation on the human body was not known at the first stage nor had treatment methods of the survivors been established. It took many years before the mechanism was scientifically explained and some aspects are still being investigated. Second, the medical scientists were anxious to reveal the nature of the bomb's effects. They were also human and wanted to enable the survivors to have a better life. However, it was impossible to reveal the biological effects of the bomb without treating survivors like scientific guinea pigs. Scientific investigation and treatment require different patterns of behavior. The records indicate that the "examination without treatment" problem should not only be understood as a problem that arose between two countries but also as a problem that arose between the viewpoints of survivors and investigators or scientists.

The records and diaries of doctors functioned as evidence of the bomb's inhumanity.

²⁰ James N. Yamazaki with Louis B. Fleming, *Children of the Atomic Bomb: An American Physician's Memoir of Nagasaki, Hiroshima, and the Marshall Islands*, Duke University Press, 1995, p. 53

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Although this article has addressed the remaining records and diaries, there were many doctors who could not write or speak about their investigations into the atomic bombs' casualties. Katō Shūichi (1919–2008) was a hematologist at the Tokyo Imperial University when he went to Hiroshima in 1945 as a member of the Joint Commission. Though he left numerous books, articles, and essays, he barely wrote about his personal experience in Hiroshima. When he was asked about this, he answered as follows: “.... It's difficult to talk, it's the suffering of humans. The tremendous cruelty toward the victims. Because the suffering has three steps. In addition, the number of immediate deaths is numerous and it is a massacre. The impact had not been experienced [before] in human history and it seemed to be supernatural (*Kamigakari*) as hundreds of thousands of people vanished in a moment, at one blow, in the light of day. It's very difficult to talk about this impact and there's no art of rhetoric. (...) The mindset of science, or epistemology contains the idea in which the individual person vanishes and transforms persons to numbers within a specific category. It's cruelty. One of the reasons that I didn't talk about the atomic bomb for a while is [because it is] related to such kinds of thing.”²¹ Katō abandoned his career as a hematologist in his 30s, almost a decade after Hiroshima, and became an intellectual. Although Katō himself did not talk much about his experience in Hiroshima, his experiences definitely contributed to his later thought.²²

Although any given individual did not write or speak by themselves, the remaining records help future generations to think about what the person in question experienced and thought. Wataru Walter Sutow (1912–1981), a Japanese-American doctor who worked for ABCC from 1948 to 1953, seldom wrote or talked about his life. However, a journalist traced and illuminated the life of Sutow by using the remaining records, documents, and interviews from both the Americans and the Japanese.²³

The remaining records can teach us many things as this paper has indicated. However, most of the medical records of atomic bomb casualties, located in both Japan and the U.S., are not available to the public. Concealment of the medical records is not only a consequence of the American cover up as is often pointed out. It is the consequence of concern for patient privacy, information control by American and Japanese governments, and self-regulation of the institutes holding the documents. The question of whom the medical records are for also arises.

²¹ Katō Shūichi, *Nijusseiki no Jigazō*, Chikuma Shobō, 2005, pp. 115–116.

²² Katō's record is digitalized in the Ritsumeikan University Library. It includes his diaries from 1948–1949, and 1950–1951 when he was still a medical scientist. <https://trc-adeac.trc.co.jp/WJ11C0/WJJS02U/2671055100>

²³ Nagasawa Katsuji, *Life Story of a Pediatrician, Doctor Sutow: Second-Generation Japanese-American, Atomic and Hydrogen Bombs, and Cancer Treatment (Shōnikai Doctor Sutō-den: Nikkei Nisei, Gensuibaku, Ganchiryō)*, Heibonsha, 2015.