

Topic Page: [Atomic bombings of Hiroshima and Nagasaki](#)

Definition: **Atomic Bombings of Hiroshima and Nagasaki** from *The Hutchinson Unabridged Encyclopedia with Atlas and Weather Guide*

<http://www.helicon.co.uk/cgi-bin/redirect.pl4?w0005258>

Part of the Avalon Project at the Yale Law School, this page contains the report of the Manhattan Engineer District of the United States Army describing the effects of the atomic bombs dropped on Hiroshima and Nagasaki in August 1945. As stated in the report's foreword, it 'summarizes all the authentic information that is available on damage to structures, injuries to personnel, morale effect, etc, which can be released at this time without prejudicing the security of the United States.' The report is divided into more than two dozen chapters, including those on damage and injuries, propaganda, selection of targets, the nature of an atomic explosion, characteristics of various types of injuries, and an eyewitness account.

articles

Nagasaki

Hiroshima

Summary Article: **Hiroshima and Nagasaki**

From *The SAGE Encyclopedia of War: Social Science Perspectives*

Scientific advances and political priorities have led to the creation of tens of thousands of nuclear weapons. The United States and the former Soviet Union (present-day Russia) have led the way, but eight other nations—the United Kingdom, France, China, Pakistan, India, Israel, North Korea, and South Africa—have also acquired and tested the atomic bomb. Strategic doctrine; geopolitical rivalry; executive authority; and military, economic, and bureaucratic interests are all intertwined in building this arsenal and have brought the respective countries and their immediate neighbors to the brink of nuclear war. But nuclear weapons have been actually detonated, deliberately, against human beings on two occasions. The atomic bombing of Hiroshima and Nagasaki, the immediate impact on the population itself, the destruction of buildings and other physical features of the cities, and the longer psychological and other health consequences must be chronicled and remembered as the world seeks ways to prevent that horror from happening again. This entry describes the effects of the Hiroshima and Nagasaki attacks, examines the justifications offered by the United States for the bombings, and discusses the response of the Japanese government. It then reviews the basis for claims that the attacks constituted war crimes.

The Effects of the Atomic Bombings

At 8:15 a.m. on August 6, 1945, the world's first atomic bomb was dropped on Hiroshima, Japan, and three days later, at 11:02 a.m. on August 9, 1945, a second atomic bomb was dropped on Nagasaki. The bomb used on Hiroshima was a uranium gun-type atomic bomb referred to as "Little Boy." It exploded 580 meters above the ground with a force equivalent to approximately 12.5 kilotons of TNT. The bomb used on Nagasaki was a plutonium implosion-type atomic bomb known as "Fat Man." It exploded 503 meters above the ground with a force equivalent to 22 kilotons of TNT. Of the total amount of energy that rained down to the ground, 35% was in the form of heat rays, 50% was the blast itself, and

the remaining 15% was in the form of radiation.

The effects of these three elements of the bomb can be summarized respectively as follows.

Heat Rays

Estimates suggest that after the atomic bomb was detonated, powerful heat rays were released for a period of approximately 0.2 to 0.3 seconds, heating the ground to temperatures ranging from 3,000 to 4,000°C. These heat rays burned people near the hypocenter to ashes and melted bricks and rocks. It is said that people suffered burns up to 3.5 kilometers from the hypocenter in Hiroshima and up to 4 kilometers in Nagasaki. In addition, the heat rays burned buildings, triggered large-scale fires, and ignited an enormous firestorm.

The Blast

The blast from the atomic bomb completely destroyed all surrounding structures in an area of 4.7 square miles, by U.S. estimates. In the areas surrounding the hypocenter, people were slammed into walls and crushed to death by collapsing houses. Injuries were sustained from flying glass and other debris even in areas a long distance from the hypocenter.

Radiation

The most distinctive of the devastating features of the atomic bomb was radiation. Of the total energy released by the explosion, 5% consisted of initial radiation and 10% of residual radiation. The initial radiation was caused by the nuclear fission of uranium or plutonium. Gamma and neutron rays emitted at this time penetrated people on the ground. Neutron rays caused soil and aboveground structures to become radioactive. Fission products were picked up and carried in the atmosphere by upward wind currents, turning into black soot in the atmosphere; these tiny particles became moist and fell to the ground in the form of "black rain." These radioactive particles caused both internal and external damage. Many of those killed in the months following the bomb displayed acute symptoms, such as hair loss, diarrhea, purpuric skin lesions, bleeding gums, and fever. Cancer, leukemia, and various other aftereffects also became apparent.

Short- and Long-Term Effects

The compound effects of the heat rays, blast, and radiation had a far greater effect than any of these would have had individually. Heat rays caused the outbreak of fires. The blast destroyed buildings, causing secondary fires, and the ensuing firestorm created upward wind currents that spread radioactive matter on the ground and through the atmosphere. Exposure to radiation seriously damaged the health and eventually took the lives of many people.

In Hiroshima, the fires quickly spread to the outskirts of the city, and firestorms were created at many spots by large and intense fires. Hounded by the flames, people ran into the river in search of a safe refuge. They found little sanctuary, however, as flames licked the surface of the water. Soon all six tributaries of the Ota River that runs through the city were filled with dead bodies. Many more died as they went into the river, seeking water to relieve their thirst. About half an hour after the explosion, it rained hard in the northeast part of the city, quickly bringing down the temperature. As many people were half naked, having had their clothes burnt by the fires, the rain made them shiver with cold. The rain, which contained large quantities of radioactive fallout, was black. To slake their thirst, many people opened their mouths to catch raindrops or licked the puddled rainwater in the street, oblivious to the danger of radiation. Houses between 2.5 and 5 kilometers from the hypocenter were completely or

partially destroyed, and many died trapped under collapsed and burning houses. Injured people trying to escape to the suburbs walked ghost-like, with their arms outstretched and skin hanging off of their bodies, having been melted by the blast. According to the survivors, every place was a hell-like scene. It is estimated that the atomic bombing killed 80,000 people instantly in Hiroshima on that day. In the following two weeks, 45,000 other people died from burns, blast, and acute radiation. Tens of thousands of others died soon after the bombs were dropped through lack of medical supplies. By the end of 1945, an estimated 140,000 people had died in Hiroshima and 70,000 in Nagasaki. Since 1945, countless more have died as a result of various aftereffects. Many of those who experienced this “hell on Earth” also suffered serious psychological damage. The U.S. Department of Energy has estimated that after 5 years, there were perhaps 200,000 or more fatalities as a result of the Hiroshima bombing.

Genetic damage from radiation later became a cause of cancer and left various other physical impediments that scientists still do not fully understand. Today, over 70 years after the end of the war, new aftereffects are still appearing, and the survivors live in constant fear. It is further thought that damage to health, particularly from radiation, has, in some cases, been passed on to children and grandchildren. Disfigurement also brought about many forms of anguish and discrimination. Marriage and employment became difficult for *hibakusha* (atomic bomb survivors), and many did not feel that they were able to interact in “normal” ways with the rest of society. As a result, they suffered doubly: first, from their wounds, and second, from either external or self-imposed social ostracizing that made it impossible for them to lead normal lives.

The victims of the bombs not only were Japanese nationals but also included many Koreans and Chinese people who were working in Japan, as well as some prisoners of war from the Allied forces captured by the Japanese military. Forced laborers sent from Japanese colonies such as Korea and Taiwan, along with people from occupied China and Southeast Asia, also became victims. The Japanese government bears at least a degree of *moral* responsibility to these people too, if not legal responsibility. These non-Japanese casualties have been acknowledged and documented in recent revisions of the Hiroshima and Nagasaki A-bomb museums and commemorated in dedicated memorial monuments in their respective gardens. Visitors to the Nagasaki museum can actually listen to the testimonies of the surviving Australian and Dutch prisoners of war.

The American Justification of the Use of the Atomic Bombs

On August 9, 1945, President Harry Truman, who had just returned to Washington, D.C., from the Potsdam Conference, addressed the American people in a radio report:

The world will note that the first atomic bomb was dropped on Hiroshima, a military base. That was because we wished in this first attack to avoid, insofar as possible, the killing of civilians. But that attack is only a warning of things to come. If Japan does not surrender, ... unfortunately, thousands of civilian lives will be lost... . Having found the bomb we have used it. We have used it against those who attacked us without warning at Pearl Harbor; against those who have starved and beaten and executed American prisoners of war; against those who have abandoned all pretense of obeying international laws of warfare. (Emphasis added)

Here, Truman justifies the indiscriminate killing of an estimated 70,000 to 80,000 citizens by claiming that that it was done “to avoid, insofar as possible, the killing of civilians.” In later justifications of the use of the atomic bomb, it was claimed that the attacks saved the lives of 1 million soldiers who would

have lost their lives in a land invasion and finally brought an end to the long and bloody war in the Asia-Pacific region. Although this understanding of the purported necessity of using atomic bombs on Hiroshima and Nagasaki is deeply rooted in the psyche of most Americans, critics have argued that this view is a myth that does not correspond to the historical facts. Historians have also argued that Truman's decision rested on the false assumption that his options were limited to either using the atomic bomb or moving ahead with the plans for what was anticipated to be a full invasion of Japan, with huge U.S. losses. With regard to the end of the war, there were other important factors, such as the future fate of Hirohito and the monarchy, as well as the Soviet Union's entry into the war against Japan.

Yuki Tanaka notes, in *A Proposal From Hiroshima*, that

the U.S. Government has persistently used this non-legal self-justification since the end of the Asia Pacific War to defend the use of the atomic bombs... . Yet, even if the myth that the atomic bombing had ended the war were historically accurate, no historical or political justification can legitimize the indiscriminate killing of civilians. For 15 long years, Japan embarked on a war of aggression in Asia and long after it became clear that defeat was inevitable, Japan refused to surrender. In my view, the Japanese Government and its leader, Emperor Hirohito, are therefore accountable, along with the US authorities—both legally and morally—to the A-bomb victims for the disaster caused by the atomic bombing of Hiroshima and Nagasaki.

The Japanese Government's Reaction to the Atomic Bombing

Immediately following the atomic bombing of Nagasaki on August 9, 1945, the Japanese government sent a letter, signed by Foreign Minister Togo Shigenori, through the Swiss government protesting the U.S. action. In the protest letter, the Japanese government asserted,

It is the fundamental principle of international law in war time that belligerents do not possess unlimited rights regarding the choice of the means of harming the enemy, and that we must not employ arms, projectiles, or material calculated to cause unnecessary suffering. They are each clearly defined by the Annex to the Hague Convention respecting the Law and Customs of War on Land, and by Article 22 and Article 23(e) of the Regulations respecting the Law and Customs of War on Land.

The letter further condemned the United States in these harsh words:

The indiscriminateness and cruelty of the bomb that the US used this time far exceed those of poisonous gases and similar weapons, the use of which is prohibited because of these very qualities. The US has ignored the fundamental principle of international law and humanity and has been widely conducting the indiscriminate bombing of the cities of our Empire, killing many children, women and old people, and burning and destroying shrines, schools, hospitals and private dwellings. Withal, they used a novel bomb, the power of which exceeds any existing weapons and projectiles in its indiscriminateness and cruelty. The use of such a weapon is a new crime against human culture.

Undoubtedly, those who drafted the letter were familiar with international law. The letter sternly condemns not only the atomic bombings of Hiroshima and Nagasaki but also the air raids on other cities as indiscriminate mass killings in violation of the Hague Convention. This was, however, the first and only letter of protest that the Japanese government ever issued on the atomic bombings.

On August 15, 1945, Emperor Hirohito stated in his Imperial Rescript on the Termination of the War,

The enemy has begun to employ a new and cruel bomb with incalculable power to damage and destroy many innocent lives. If we continue to fight, it would not only result in the ultimate collapse and obliteration of the Japanese nation, but it would also lead to the total extinction of human civilization. This being the case, I am challenged to know how to save the millions of lives of you my loyal subjects and how to atone myself before the spirits of my heavenly imperial ancestors. This is why I have ordered acceptance of the provisions of the Joint Declaration of the Allied Powers... .

I cannot but express my deepest regret to our allied nations of East Asia, who have consistently cooperated with the empire towards the emancipation of East Asia.

In other words, the rescript implied that due to the frighteningly brutal weapon that has been developed, continued war efforts could result not only in the annihilation of the Japanese nation but also in the destruction of human civilization. He therefore agreed to unconditional surrender. He could not but express his regret to “our allied nations of East Asia, who have consistently cooperated with the Empire towards the emancipation of East Asia.”

In singling out the atomic bombings as the decisive factor in his decision to surrender, not surprisingly, Hirohito completely ignored the war crimes the Japanese military had committed in its war of aggression across Asia and the Pacific, as well as the anti-Japanese resistance that was taking place across Asia. Furthermore, he exploited the “A-bomb damage” to indirectly justify the war as a “war to liberate Asia.”

Thus, the rescript advanced the myth that Japan was forced to surrender by the inhumane atomic bomb, and it cultivated an exclusively victim mentality, thus concealing the responsibility for the war borne by the emperor himself, by other wartime leaders, and by the Japanese people. Just as President Truman fabricated a myth to cover up the U.S. government's responsibility for its grave war crimes by stating that he had ordered the A-bomb attacks “to avoid ... the killing of civilians,” so too, the Japanese government used this rationale to avoid its responsibility for a war in the name of the Japanese empire that took tens of millions of lives throughout the Asia-Pacific.

The Criminality of the Atomic Bombing

In 1955, five *hibakusha* from Hiroshima and Nagasaki filed a lawsuit against the Japanese government and appealed to the District Court of Tokyo, seeking compensation for their losses. This so-called *Shimoda* case took 8.5 years to complete before the final judgment was delivered in December 1963.

The plaintiffs argued that the atomic bombing violated international law, as well as municipal law, and that under international law, individual victims are entitled to compensation. However, they argued that when the Japanese government signed the San Francisco Peace Treaty in 1951, Japan waived, by virtue of the provisions of Article 19(a) of the treaty, the claims of the plaintiffs under international law. Consequently, the plaintiffs lost their claim for damages to the United States and its president. Since it was illegal for the Japanese government to give up the claim, the plaintiffs argued, the State of Japan is liable for the damages of the plaintiffs. In other words, the waiver of the plaintiffs' claims by the defendant—the Japanese government—gave rise to an obligation on the part of the defendant to pay damages to the plaintiffs. Although the ruling by the Tokyo District Court acknowledged the illegality of the atomic bombing of Hiroshima and Nagasaki, it denied the demand of the plaintiffs to the Japanese government. As the plaintiffs did not appeal to a higher court, the judgment was made final at this first

trial.

On the issue of legality, however, the judgment in this case clearly stated that the atomic bombing of Hiroshima and Nagasaki was a violation of international law and regulations respecting aerial warfare. The court cited a number of international laws, including the Hague Convention II of 1899; the Hague Convention (IX) Concerning Bombardment by Naval Forces in Time of War of 1907; the Hague Rules of Aerial Warfare of 1923; and the 1925 Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, usually known as the Geneva Protocol. The court found that “an aerial bombardment with an atomic bomb on both cities of Hiroshima and Nagasaki was as an illegal act of hostility as it was an indiscriminate aerial bombardment on undefended cities.” The judgment also stated, in part,

It is a deeply sorrowful reality that the atomic bombing on both cities of Hiroshima and Nagasaki took the lives of many civilians, and that among the survivors there are people whose lives are still imperilled owing to the radial rays, even today 18 years later. In this sense, it is not too much to say that the pain brought by the atomic bombs is more severe than that from poison gas, and we can say that the act of dropping such a cruel bomb is contrary to the fundamental prohibition on unnecessary suffering under the laws of war.

Although the judgment did not refer to *crimes against humanity*, it seems clear that the atomic bombing of Hiroshima and Nagasaki constitutes crimes against humanity, in particular, “murder, extermination and other inhumane acts committed against any civilian population,” as defined by Article 5 of the Charter of the International Military Tribunal for the Far East (the so-called Tokyo Tribunal), enacted on January 19, 1946.

Remembering the atomic bombing of Hiroshima and Nagasaki is a difficult but necessary act. With the advantage of historical perspective, we recognize the many dimensions of the human tragedy, the challenges to its legality, and the limited, if not inadequate, justification for the decision to kill more than 200,000 civilians. Controversies will continue, but as time passes, the efforts of the *hibakusha* and others to call specific attention to the horror will prove to be more important than Washington's original attempts to explain its decision. Those memories will also be crucial to prevent the reoccurrence of using atomic weapons.

Source: This entry is adapted with permission from

Tanaka, Yuki , “The Atomic Bombing, the Tokyo Tribunal and the Shimoda Case: Lessons for Anti-Nuclear Legal Movements,” *The Asia-Pacific Journal: Japan Focus* 7/44 (November 2, 2009). <http://apjif.org/-Yuki-Tanaka/3245/article.html>;

Tanaka, Yuki , “Photographer Fukushima Kikujiro: Confronting Images of Atomic Bomb Survivors,” *The Asia-Pacific Journal: Japan Focus* 9/43 (October 26, 2011). <http://apjif.org/2011/9/43/Yuki-Tanaka/3623/article.html>;

Tanaka, Yuri , “Hiroshima and America's Crimes of War Against the People of Japan—Reflections 68 Years On: How to Address an Irresponsible State,” *The Asia-Pacific Journal, Symposium, Crises in the Asia-Pacific*, Sophia University, Tokyo Japan, May 22, 2015, translated by Michiko, Hase , <http://apjif.org/-Yuki-Tanaka/4770/article.html>.

See *also* Nuclear Weapons, Effects; World War II

Further Readings

- “Atomic Bombings of Hiroshima and Nagasaki.” Atomic Archive. http://www.atomicarchive.com/Docs/MED/med_chp9.shtml.
- Falk, Richard A. “The Shimoda Case: A Legal Appraisal of the Atomic Attacks Upon Hiroshima and Nagasaki.” *American Journal of International Law* 59/4 (1965): 759-793.
- Ham, Paul. *Hiroshima, Nagasaki: The Real Story of the Atomic Bombings and Their Aftermath*. Thomas Dunne Books New York, 2014.
- Hersey, John. *Hiroshima*. 1946. Reprint; Vintage New York, 1989.
- Hiroshima and Nagasaki City Editorial Committee of the Effects of the Atomic Bombing, ed. *Hiroshima and Nagasaki: The Physical, Medical, and Social Effects of the Atomic Bombings*. Basic Books New York, 1981.
- Lifton, Robert Jay; Greg Mitchell. *Hiroshima in America: A Half Century of Denial*. Harper Perennial New York, 1996.
- Poolos, J. *The Atomic Bombings of Hiroshima and Nagasaki*. Chelsea House Publications New York, 2008.
- Selden, Kyoko; Mark Selden, eds. *The Atomic Bomb: Voices From Hiroshima and Nagasaki*. M.E. Sharpe Armonk NY, 1990.
- Tanaka, Yuki. “The Atomic Bombing, the Tokyo Tribunal and the Shimoda Case: Lessons for Anti-Nuclear Legal Movements.” In *Beyond Victor's Justice? The Tokyo War Crimes Trial Revisited*, edited by Yuki Tanaka; Tim McCormack; Gerry Simpson, 291-310. Brill Leiden The Netherlands, 2011.
- Tanaka, Yuki. “A Proposal From Hiroshima.” *Digital Development Debates* 15 (July 2015). <http://www.digital-development-debates.org/issue-15-responsibility.html>.
- Yamakazi, James N. *Children of the Atomic Bomb: A UCLA Physician's Eyewitness Report and Call to Save the World's Children*. <http://www.aasc.ucla.edu/cab/200708230009.html>.

Yuki Tanaka

APA

Chicago

Harvard

MLA

Tanaka, Y. (2016). Hiroshima and Nagasaki. In P. Joseph (Ed.), *The SAGE encyclopedia of war: Social Science perspectives*. Thousand Oaks, CA: Sage Publications. Retrieved from https://search.credoreference.com/content/topic/atomic_bombings_of_hiroshima_and_nagasaki

 Copyright © 2017 by SAGE Publications, Inc.

 Copyright © 2017 by SAGE Publications, Inc.

APA

Tanaka, Y. (2016). Hiroshima and Nagasaki. In P. Joseph (Ed.), *The SAGE encyclopedia of war: Social Science perspectives*. Thousand Oaks, CA: Sage Publications. Retrieved from https://search.credoreference.com/content/topic/atomic_bombings_of_hiroshima_and_nagasaki

Chicago

Tanaka, Yuki. "Hiroshima and Nagasaki." In *The SAGE Encyclopedia of War: Social Science Perspectives*, edited by Paul Joseph. Sage Publications, 2016. https://search.credoreference.com/content/topic/atomic_bombings_of_hiroshima_and_nagasaki

Harvard

Tanaka, Y. (2016). Hiroshima and Nagasaki. In P. Joseph (Ed.), *The SAGE encyclopedia of war: Social Science perspectives*. [Online]. Thousand Oaks: Sage Publications. Available from: https://search.credoreference.com/content/topic/atomic_bombings_of_hiroshima_and_nagasaki [Accessed 18 October 2019].

MLA

Tanaka, Yuki. "Hiroshima and Nagasaki." *The SAGE Encyclopedia of War: Social Science Perspectives*, edited by Paul Joseph, Sage Publications, 1st edition, 2016. *Credo Reference*, https://search.credoreference.com/content/topic/atomic_bombings_of_hiroshima_and_nagasaki. Accessed 18 Oct. 2019.