The Atomic Bomb Dropped on Nagasaki

Atomic bombs used as lethal weapons make use of energy generated when fissile material (e.g., plutonium) undergoes fission, Compared with trinitrotoluene (TNT), atomic bombs are much more destructive. Furthermore, radioactive rays. such as gamma rays and neutron rays, generated at the time of the nuclear fission cause serious damage to the human body over extended periods of time.

The atomic bomb dropped in Nagasaki was 3.25m in length, 1.52m in diameter, and 4.5t in weight. From the shape of the atomic bomb, it was called Fat Man, When the atomic bomb exploded, its energy emission was equivalent to 21kilotons of TNT

The energy released from the explosion is presumed to have consisted of blast (approximately 50% of the total energy), heat rays (approximately 35 % of the total energy), and radiation (approximately 15% of the total energy). These combined factors caused serious damage to Nagasaki.

Breakdown of Energy

Radiation 15% Blast 50% Heat Rays







Mushroom Cloud as Seen From an American Aircraft

Damage Caused by the Atomic Bomb

August 9, 1945	Population of Nagasaki City: Approximately 240,000
Number of A-bomb victims (Estimated as of December 1945)	Dead: 73,884 Injured: 74,909

(Survey of 1950 made by A-bomb Material Preservation Committee of Nagasaki)



Near the Hypocenter on the Following Day (Photographed by Yosuke Yamahata)

All the buildings in this area were completely burnt down. Amongst the rubble, which looked like it had been flattened by a roller, many charred bodies were found.



Groups Admission Fees Classification Individuals Adults ¥160 ¥200 Students and ¥100 ¥ 80

*Admission is free for children below elementary school age.

Opening Hours 8:30 to 17:30 (admission until 17:00)
Closes at 18:30 from May to August (admission until 18:00)

December 29 to 31

Toll Car Park Room for 12 buses and 71 standard-sized cars.

Access Map



From JR Nagasaki Station

· Streetcar: Take street car bound for Akasako, get off at Atomic Bomb Museum, and walk for five minutes. ·Bus: Take Nagasaki bus routes #1, #2, or #9, get off at Hamaguchi-machi, and walk for five minutes.

From Nagasaki Airport

Closed

· Limousine Bus: Take bus bound for Nagasaki Station via Urakami, get off at Matsuyama-machi, and walk for five minutes.

From JR Urakami Station

· Fifteen minute by walk.

(Visit both facilities together)

To view atomic bombing memoirs and video testimonials go to the Nagasaki Peace Memorial Hall next door (admission free)



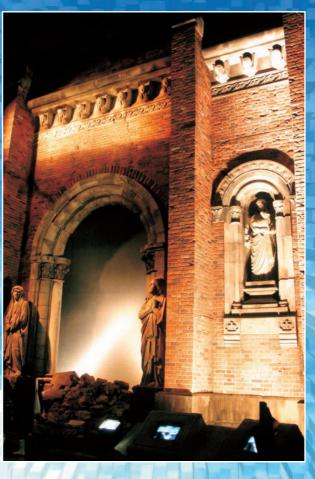
Peace Message Corner

Remembrance Hall Library / Reference Room



Best Museums in Japan

NAGASAKI ATOMIC BOMB MUSEUM



7-8 Hirano-machi, Nagasaki 852-8117 Japan TEL 095-844-1231 FAX 095-846-5170 E-mail genbaku@city.nagasaki.lg.jp



Please scan the QR Code to see the explanation.



website

Introduction

An atomic bomb exploded in the air above Nagasaki at 11:02 a.m. on August 9, 1945. The most part of Nagasaki was destroyed, and a tremendous number of lives were lost, People who narrowly escaped death suffered physical and psychological damage. Even now, many A-bomb survivors are suffering.

The Nagasaki Atomic Bomb Museum was opened in April 1996 as part of the 50th anniversary projects for the Nagasaki atomic bombing. This museum replaced the Nagasaki International Culture Hall, where a number of artifacts related to the atomic bombing were exhibited.

In addition to these artifacts, the museum exhibits a number of photographs that depict the devastation caused by the A-bomb showing the lead-up to this tragic day, the history of the development of nuclear arms and our desire for peace.

Museum Facilities

Permanent Exhibition Rooms (B2)

The permanent exhibition rooms exhibit large-sized materials exposed to the blast and a replica of the A-bombed sidewall of Urakami Cathedral to reproduce the tragic state of Nagasaki immediately after the bombing. These rooms provide an easy-to-understand exhibition by using a number of articles left by the deceased along with photographs and data showing the tragic after effects of the bomb.

Special Exhibition Rooms (B2)

In order to complement the existing exhibition and to have visitors deepen their understanding of the A-bomb and peace, several special exhibitions are also held throughout the year.

* Special exhibitions are not held all year round.

Audio Guides (ticket counter in B2)

Audio guides with explanations of the permanent exhibition are available to rent. Languages supported are Japanese, English, Chinese, Korean, Spanish, German, Dutch, Russian, French, Arabic, Portuguese, and Brazilian. (157JPY)

Bookshop (B1)

Books about atomic bombs and peace can be bought here.

Conference Hall (B1)

This hall can be rented out for a variety of activities such as peace study sessions and lectures.

Peace Study Rooms (B1)

These rooms are used for a variety of activities including peace study sessions and talks given by the A-bomb survivors.

Library (1F)

Tearoom

Opening hours: From 9:00 to 17:00 (dosed on Monday)

Resting Place (B1)

A lounge for visitors.



An assortment of drinks and snacks are available.

Facilities in the Vicinity

The Nagasaki National Peace Memorial Hall for the Atomic Bomb Victims and Nagasaki City Peace Hall are located close to Nagasaki Atomic Bomb Museum.



August 9, 1945

This corner exhibits a clock which froze at 11:02am, the moment Nagasaki was instantly destroyed, Nagasaki and its people before the atomic bombing, and footage of the mushroom cloud.

Wall Clock

A Wall Clock Stopped at 11:02

The clock was found in a house near the Sanno Shrine, which was approximately 800m away from the hypocenter. The clock was shattered by the blast and its hands stopped at 11:02 - the moment of the explosion.

Nagasaki Prior to the Atomic Bombing

Distant view of the entire area of Yamazato (provided by the US Armed Forces Institute of Pathology)

The building in the center of the photo is the Urakami Cathedral.

Dropping of the Atomic Bomb

The history of nuclear weapon development,

the postwar international situation, antinuclear

movements around the world, and other related

information are exhibited in chronological order.

Footage taken from U.S. aircraft, which shows the moment the atomic bomb exploded and the formation of the mushroom cloud.



Damage Caused by the Atomic Bombing

This section reproduces the tragic state of Nagasaki immediately after the bombing, giving visitors a sense of the destructive power and fear of the atomic bomb.

Nagasaki; the Atomic Wasteland

Water Tank from Keiho Middle School

The water tank with contorted legs was located at Keiho Middle School (the present-day Nagasaki Nishi High School), which was approximately 800m away from the hypocenter.



The Ruins of Urakami Cathedral Rosaries

At the time of the atomic bomb explosion. two priests were hearing the confession of several dozen parishioners at Urakami Cathedral. All of these people died under the rubble of the demolished building. Although

a few rosaries were recovered from the dehris most of the rosaries that had been

Description of Process of Nagasaki-type Atomic Bomb Atomic Bombina This section exhibits a course of events that occurred until the atomic bomb was dropped in Nagasaki.

Events Leading up to the Nagasaki Atomic Bombing

Life-size Model of Nagasaki-type Atomic Bomb

The TNT implodes on the core of

Leaflets Dropped by American bombers

The bombing of the Japanese main islands by American forces grew severe from the early months of 1945. At the same time a variety of propaganda leaflets were strewn over the cities of Japan. This leaflet provides information about the bombing of Hiroshima and the power of the atomic bomb, and it warms citizens to leave the city and to stop fighting.



The Atomic Wasteland in Nagasaki Geographical Features of Nagasaki

The monitor screens from the ceiling give an easy-tounderstand explanation of the fireball, heat rays, blast. fires, and radiation of the bomb by using a model.



Silhouette Remaining on a Wall

(Photographed by Eiichi Matsumoto and presented by the Asahi Shimbun Company)

About 4.4 kilometers south

of the hypocenter. A look-

out was exposed to the

flash of the atomic bomb

explosion after coming

down from the roof of the

Nagasaki Fortress Headquarters. The tar exposed

directly to the flash burned

and disappeared but that

in the shadows remained.

Damages Caused by the Flash of Heat A Schoolgirl's Lunch Box

This is a memento of Satoko Tsutsumi (14 years old at the time of the bombing), who was exposed to the atomic bomb explosion in Iwakawa-machi about 700 meters from the hypocenter. The rice in the lunch box was charred by the fires after the bombing. Satoko's name and class number are written on the bottom of the smaller box.



Six Melted Bottles

Found in the ruins of a store about 400 meters from the hypocenter, these bottles melted at the top and stuck together.



pocenter. The bones of a human hand are stuck to a clump of glass that melted as a result of exposure to the extreme heat.

The Bones of a

Hand in Glass

Found near the hy-



Work Clothing and Cap

the atomic bombing at Mitsubishi Nagasaki Steel Works, about 1.2 kilometers from the hypocenter. The parts exposed directly to the heat rays are scorched black.

Helmet with the Remains of a Skull

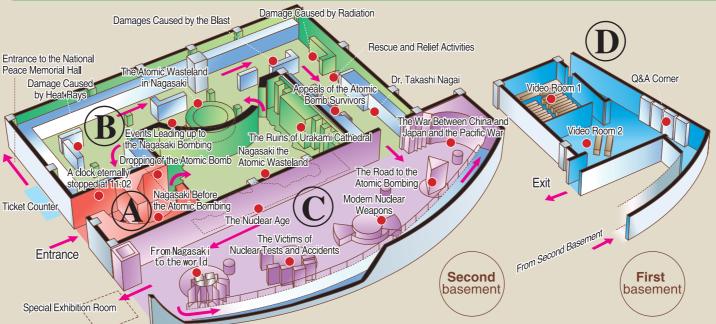
Part of the victim's skull remains on the inner surface of this helmet found near the hypocenter





in the hands of the parishioners were scattered and lost.

plutonium, causing nuclear fission.



Dr. Takashi Nagai A Portrait of Takashi Nagai



Takashi Nagai, an assistant professor at Nagasaki Medical College, was exposed to the atomic bomb explosion in the college hospital. In spite of his own serious injuries, he immediately began selfless efforts to assist the victims and to launch studies concerning atomic bomb related disease.

Rescue and Relief Activity Makeshift Hospital at Shinkozen Primary School



This school became the largest first-aid center in the city, where a large number of A-bomb victims were treated. Many of them died in conditions specific to the atomic bombing, when people did not have sufficient knowledge about diseases brought on by the A-bomb.

Appeals of the Atomic Bomb Survivors Relief Train for the Victims



homb victims. Kunito Terai was a locomotive engineer. He illustrated his first-hand experiences of the A-bomb at Hizen-Yamaguchi Station on the Main Nagasaki Line and operated the relief train to a crossing near the hypocenter.

Damages Caused by Radiation Swollen Spleen



The spleen became remarkably swollen under the influence of radiation. The spleen shown on the right-hand side is that of a healthy person of the same age.

Damages Caused by the Blast Shiroyama Primary School (Provided by the US Armed Forces Institute of Pathology)

ters west of the hypocenter. The carcass of the threestory ferroconcrete building remained standing after the atomic bombing. But, weakened by the blast, it later collapsed from the third story as a re-

Located 500 mesult of exposure to the wind and rain.

One-legged Gate Pillar of Sanno Shinto Shrine (Photographed by Shigeo Hayashi) About 800 meters southeast of the hypocenter.

Perhaps due to shielding from the stone bannister to the right, only the pillar close to the hypocenter was toppled by the blast. The other pillar remains upright to this day.



clothing when exposed to





Video Rooms



The Nuclear Age

Video Room A-Bomb Documentary Film Screening Two movies are shown. One of them

is a movie entitled Record of Nagasaki Atomic Bombing, which was edited rom records of the A-bombing disaser filmed by The Special Committee for the Investigation of A-bomb Dam-

ages. The second is an animated cartoon entitled August 9 Nagasaki, which was produced jointly by the City of Nagasaki and the Prefecture of Nagasaki under a joint project for the 35th anniversary of the atomic bombing.

O&A Corner Q&A About the Atomic Bomb

Toward a World Free of Nuclear Weapons

Modern Nuclear Weapons

The accuracy of missiles that carry

nuclear warheads has made remark-

able progress since the atomic

bombing of Nagasaki. The power of

nuclear warheads has increased sig-

nificantly with a size reduction, with

intent of using on the battlefield. This

section shows the number of nucle-

ar tests conducted and provides in-

formation on present-day nuclear

weapons with visual aids.

Have a go at this quiz with 50 beginner- and advanced-level questions related to the A-bomb and peace.

