

A black and white photograph of a massive crowd of people, primarily in military uniforms, celebrating the end of World War II. Many individuals are holding up signs that say "PEACE". The scene is filled with joy and relief, with people smiling and waving. The background shows a city street with buildings and trees.

# The War Ends: The Manhattan Project

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**Chapter 12 Section 4**  
**USH Honors**



# Learning Target:

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- **Understand the causes and course of WWII.**
- **Explain the character of the war at home.**
- **Explain the character of the war abroad.**
- **Evaluate how WWII reshaped the United States and its role in the post-war world.**





# The Manhattan Project

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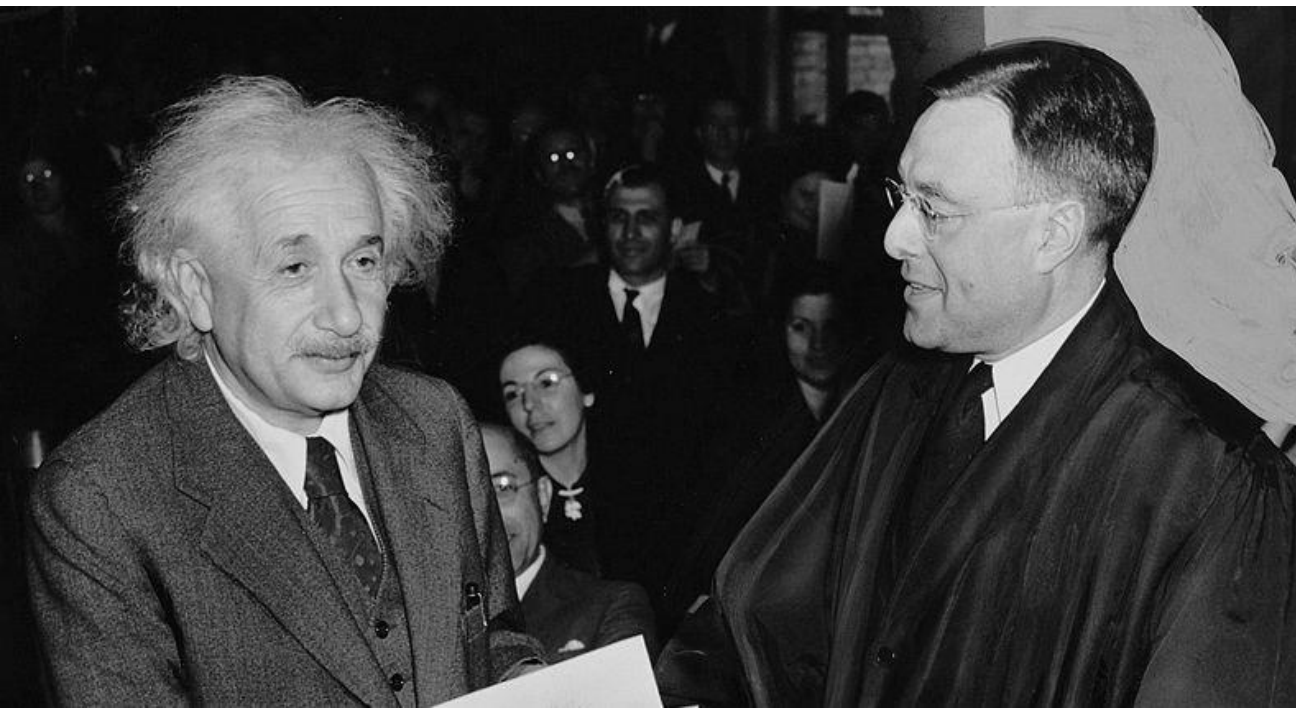
# Learning About Atomic Weapons

**Leo Szilard, a top physicist learned that German scientists had split a uranium atom.**

**Szilard enlisted the help of two colleagues:**

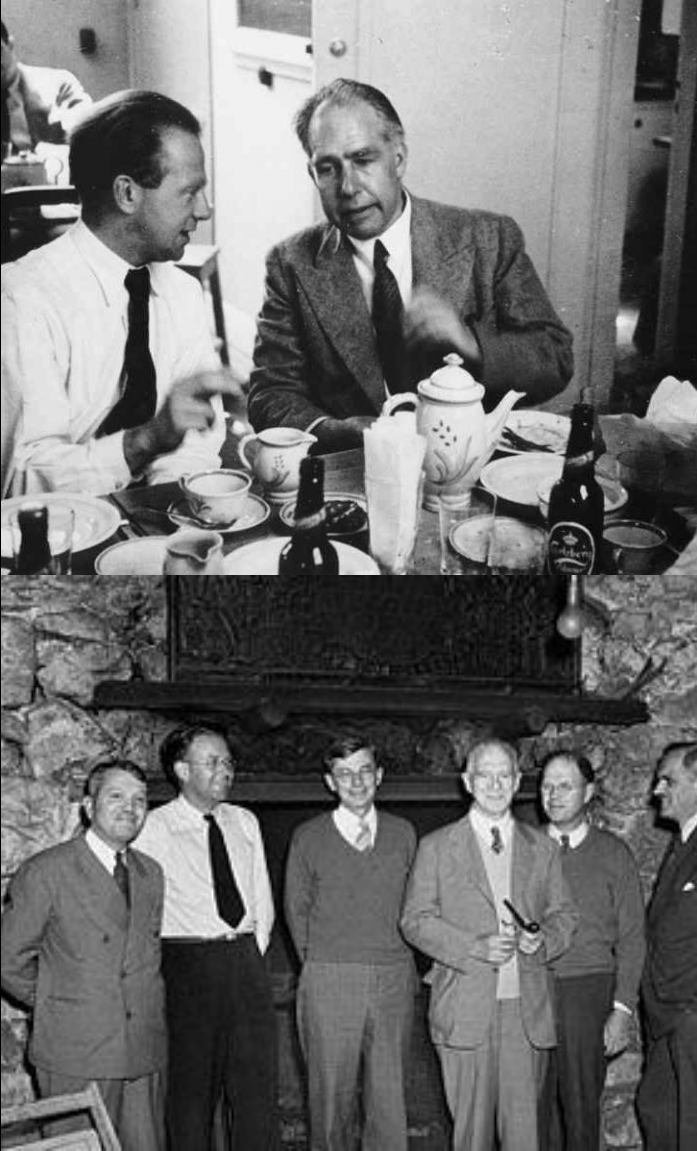
- **Albert Einstein** – the world's most well-known physicist
  - **Einstein was a Pacifist; however, he knew what would happen if Hitler developed this weapon**
  - **Einstein abandoned Pacifism and warned President Roosevelt in a letter!**
- **Eugene Wigner** – Hungarian born physicist who had studied under Einstein

**Roosevelt established a scientific committee to study the possibility of creating an atomic bomb.**





# Beginning of the Project



- **How did the project begin?**
  - **The Allies smuggled Niels Bohr out of the country of Belgium.**
  - **The S-1 Uranium Committee was established.**
  - **The committee became convinced that atomic weapons were possible.**
  - **Roosevelt was convinced that Allied scientists needed to continue their research.**
    - **The Allies need to build an atomic weapon before Germany or Japan.**
    - **This project had to be carried out in extreme secrecy.**
- **What was the Manhattan Project?**
  - **The project that developed the Atomic bomb.**
  - **The name was chosen because the primary research was completed in Manhattan.**



# Project Directors

**General Leslie R. Groves, directed the top-secret project.**

**Top world scientists were recruited to help with this project including:**

- **J. Robert Oppenheimer (US) – Team Leader**
- **Enrico Fermi (Italy)**
- **David Bohm (US)**
- **Leo Szilard (Hungary)**
- **Niels Bohr (Denmark)**
- **Eugene Wigner (Hungary)**

**Groves created 3 large research centers at remote U.S. sites:**

- **Oak Ridge, Tenn.**
- **eastern Washington State**
- **Los Alamos, N.M.**





## Manhattan Project Sites: Expansion & Placement





- **How many people were involved in this project?**
  - **By 1945 = almost 40 laboratories were involved in some part of the research and construction**
  - **Nearly 200,000 people were employed**
- **How do you keep something this large a secret?**
  - **Using so many different labs, the workers were not able to combine information.**
  - **Only a few scientists knew what they were building**
  - **Pieces of the final project were only placed together in Los Alamos, NM**



# The Death of President Roosevelt

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# Trinity Test

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- **The first test:**
  - **July 16, 1945: The US conducted the world's first nuclear bomb test at Alamogordo Air Base, New Mexico.**
  - **This test ushers in the “Atomic Age”**





# Opposition to the Manhattan Project:

- **Why would someone oppose using the bomb?**
  - **Germany surrendered...do we need to use this weapon?**
- **The debated over the use of the bomb**
  - **Leo Szilard and 70 other scientists on the project had grave concerns about using such a weapon.**
    - **Petitioned Roosevelt to NOT use this weapon.**
    - **Morally wrong to use without warning.**
  - **Oppenheimer said the US should use the bomb without warning:**
    - **The Japanese could destroy the plane.**
    - **The Japanese could move US prisoners into the area.**
    - **The bomb could be defective:**
      - **Our technology would be lost**
      - **The Japanese could use the weapon on the United States**



# Potsdam Conference





# Choosing to Use the Atomic Bomb:

**At the Potsdam Conference, the Allies chose to give Japan an ultimatum.**

- **A warning that the US, Britain, and China are ready to attack with full force**
- **Japan can choose to surrender and spare their people further destruction/warfare**
- **Japan was told that failure to surrender would mean “prompt and utter destruction”**
- **The surrender must be unconditional**
- **Japan refused to surrender to the Allies**



# Leaflet Drop & Radio Broadcasts

**American bombers dropped leaflets to inform the Japanese people of the offer of surrender.**

**Foreign radio stations broadcast the terms and offer of surrender.**

**The Japanese government had not informed the citizens.**

**Listening to foreign radio broadcasts was illegal in Japan.**





**August 6, 1945: The US drops  
an atomic bomb on  
Hiroshima**

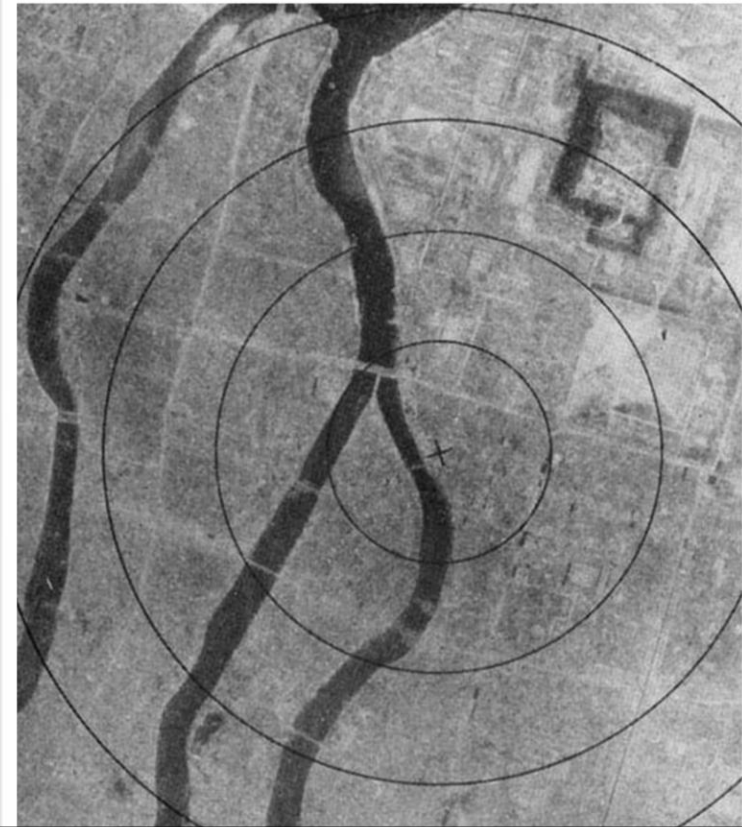
**August 9, 1945: The US drops  
an atomic bomb on Nagasaki**



# Hiroshima: Before and After the Bomb



**Hiroshima before the atomic bomb blast**

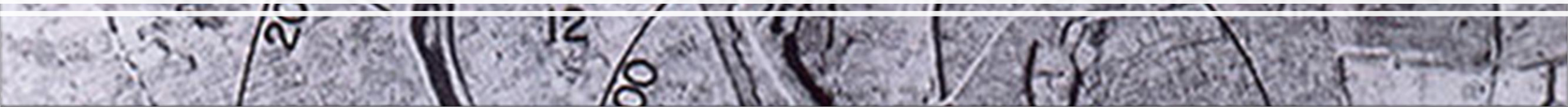


**Hiroshima after the atomic bomb blast**





## **Nagasaki Before the Bomb**







# After the bombing of Nagasaki





# Nagasaki Today