# A Libguide to *Bomb* The Race to Build -and Stealthe World's Most Dangerous Weapon By Steve Sheinkin



Above image is a photograph of a mushroom cloud which was the result of testing an atom bomb: Image taken from the atomic archive website.

 

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 \*Note: All of the resources in this Libguide are free for public use\*\*

### Introduction



#### About The Author

teve Sheinkin was born in Brooklyn, NY. He attended Syracuse Univresity where he studied communications and international relations. After college he noved to Washington, D.C., where he worked for an enviornmental group called he National Audubon Society and then moved to Austin, Texas to make movies with his brother Ari. Together with his brother in 1995, Sheinkin wrote a comedy called *A More Perfect Union*. He is also the author of a comic called *The Adventures of Pabbi Harvey*, published in 2006. He then became an educational history text book writer. After leaving the educational textbook writing industry in 2008, Sheinkin iublished his first non-textbook history called *King George:What Was His Problem?* -Bio synthesized from official bio on Sheinkin's website: http://steveshinkin.com/about/ 'In December of 1938, a chemist in a German laboratory made a shocking discovery: When placed next to a radioactive material, a uranium atom split in two.

That simple discover, dealing with the tiniest of particles, launched a cut-throat race that would span three continents. The players were the greatest scientists, the most expert spies, hardened military commandos, and someof the most ruthless dictators who ever lived. The prize: military dominance over the entire world.

This is the story of the plotting, the risk-taking, the deceit, and genius that created the world's most formidable weapon. This is the story of the atomic bomb."--Taken from the inside jacket of *Bomb*.

# LCSH: Library of Congress Subject Headings

Many libraries, including the University of Illinois at Urbana-Champaign libraries, give their patrons the option to search for resources by Library of Congress Subject Headings.

A note on how to use Subject Headings in the UIUC Online Library Catalog (taken from http://www.library.illinois.edu/ugl/howdoi/subjectheadings.html):

Using the UIUC Online Library Catalog to find subject headings for your topic:

- 1. Enter the UIUC Online Library Catalog
- 2. Select the Classic Catalog: Quick Search option.
- 3. Enter your topic into the Search For box and click search.
- 4. Select Browse Subject from the Search By box.
- 5. Click Search. An alphabetical list of subject headings closest to your search term will be returned.
- 6. Click on any subject heading to view items that have been assigned that subject heading.

#### Use LCSH after you have found an item:

- 1. Locate an item in the Online Library Catolog and click on the title to view the record for the item.
- 2. Scroll through the record to the heading Subject (LCSH), these are the Library of Congress Subject Headings for this item.
- 3. Click on a subject heading link to view an alphabetical list of subject headings. Click on a subject heading in this list to view a list of items that have been assigned that subject heading.
- 4. Click See Also to the left of the subject heading, if available, to view additional subject headings to focus your search.

The following is an example of a few subject headings to help you in further research concerning the work focused on in Sheinkin's *Bomb*. Los Alamos (N.M.)—Biography.

- Los Alamos (N.M.)—Biography—Juvenile literature.
- Los Alamos (N.M.)-History
- Los Alamos (N.M.)—History—20th century.
- Los Alamos (N.M.)—Laboratories—Environmental aspects.

Manhattan Project (U.S.)

- Manhattan Project (U.S.)—Biography.
- Manhattan Project (U.S.)—Comic books, strips, etc.
- Manhattan Project (U.S.)-Comic books, strips, etc.-Fiction
- Manhattan Project (U.S.)-Fiction
- Manhattan Project (U.S.)-Fiction-Comic books, strips, etc.
- Manhattan Project (U.S.)—History.
- Manhattan Project (U.S.)—History—Juvenile literature.
- Manhattan Project (U.S.)—History—Periodicals.
- Manhattan Project (U.S.)—History—Pictorial works.
- Manhattan Project (U.S.)—International cooperation—History.
- Manhattan Project (U.S.)—Juvenile literature.
- Manhattan Project (U.S.)-Management.
- Manhattan Project (U.S.)—Social aspects.
- Manhattan-Projekt
- Oppenheimer, J. Robert, 1904-1967.
- Oppenheimer, J. Robert, 1904-1967—Bibliography.
- Oppenheimer, J. Robert, 1904-1967—Biography.
- Oppenheimer, J. Robert, 1904-1967—Comic books, strips, etc.
- Oppenheimer, J. Robert, 1904-1967—Correspondence.
- Oppenheimer, J. Robert, 1904-1967—Drama.

### **Bibliographies**

Bibliographies are a great resource for your research! A bibliography is "a list of the books a specific author or publisher, or on a specific subject." (Source: Oxford Dictionary) Bibliographies can often help a researcher find primary and secondary resources they wouldn't normally find on their own simply by searching in a online catalog or database.

The following is an example from the UIUC Online Catalog of a useful bibliography for research on J. Robert Oppenheimer, who is highly discussed in Sheinkin's *Bomb*:

Click for more information on this title.

Author: Library of Congress. Manuscript Division.

Title: J. Robert Oppenheimer; [a register of his papers in the Library of Congress]

Series: Registers of papers in the Manuscript Division of the Library of Congress, [no. 43]

<u>Library of Congress. Manuscript Division. Registers of papers in the Manuscript Division of the</u> <u>Library of Congress no. 43.</u>

Published: Washington, Library of Congress, 1974.

Physical Description: iii, 63 p. 27 cm.

Related URL: Full text - Hathi Trust Digital Library

http://hdl.handle.net/2027/mdp.39015012973825

Subject (LCSH): Oppenheimer, J. Robert, 1904-1967 -- Bibliography.

ISBN: 0844401250

Persistent link to this page: https://i-share.carli.illinois.edu/uiu/cgi-bin/Pwebrecon.cgi?DB=local&v1=1&BBRecID=1196318

Institution: University of Illinois at Urbana-Champaign Library Location: \*UIUC Online Collection
Call Number: Online Resource → Text me this call number Copy: 1

Related URL: Full text - Hathi Trust Digital Library

http://hdl.handle.net/2027/mdp.39015047755684

Institution: University of Illinois at Urbana-Champaign Library Location: \*UIUC Online Collection Call Number: Online Resource Copy: 1

Related URL: Full text - Hathi Trust Digital Library

http://hdl.handle.net/2027/mdp.39015012973825

Institution: University of Illinois at Urbana-Champaign Library Location: Shelved At Oak Street Facility [request only] Call Number: <u>530 OP5VU</u> → Text me this call number Copy: 1 Status: Available

\*\*Note: Your institution may not have access to UIUC resources, however, if your institution has access to I-Share, then you should be able to order items from

## Media: Film, Sound Recordings, and Videos

There are many great media resources which discuss the topics covered in Sheinkin's *Bomb*. Below are some great resources for your research! Of course, Youtube is a wonderful resource for research, but please consider that there is a wealth of information available on the internet outside of Youtube. There are many more resources than are able to fit on one page including videos of atom bombs exploding and their effects.



Voices of the Manhattan Project has a rich collection of interviews and oral histories about the race for the bomb: www.voicesmanhattan project.org.



There are tons of videos on Youtube covering the topics in Sheinkin's *Bomb*. The ever popular SciShow, hosted by Hank Green on Youtube, has even covered the science of the Manhattan Project in a very easy to digest way: www.you-tube.com/watch?v=4IqKdf6In\_k



The International Campaign to Abolish Nuclear Weapons (ICAN) has dedicated a page on their website to videos about nuclear weapons: www.icanw.org/resources/videos.



Also available on Youtube is this full documentary of the Manhattan Project entitled *The Moment in Time: The Manhattan Project*: www.youtube.com/watch?v=xwpgmEvlRpM

# Interactive Nuclear Map

Something you may consider in your research, or to use in a classroom to express the massive impact of nuclear weaponry, is this interactive nuclear map. This interactive map is available at http://nuclearsecrecy.com/nukemap/.

To use, type in the name of a city (maybe your own), enter a yield of kilotonnage (or select a well known bomb in the dropdown bar) and then choose either a surface or airburst explosion.

The below example was calculated for Champaign, IL and the "Little Boy" Hiroshima bomb which yielded 15 kilotons of atomic energy. I chose to show the surface damage, casualites, and radioactive fallout in this map.



NUKEMAP 2.42 : FAQ
1. Drag the marker to wherever you'd like to target. Or you can select a preset
Or type in the name of a city: Champaign, IL Go
2. Enter a yield (in kilotons): 15
"Little Boy" - Hiroshima bomb (15 kt)
3. Basic options: Height of burst: [?] ○ Airburst      Surface     Other effects:      Casualties      Radioactive fallout
Advanced options: ►
4. Click the "Detonate" button below.
Detonate Clear all effects Launch multiple
Center ground zero Probe location
Note that you can drag the target marker after you have detonated the nuke.
Estimated fatalities: 14,750
Estimated injuries: <b>28,280</b>
In any given 24-hour period, there are approximately 86,171 people in the 1 psi range of the most recent detonation.
Modeling casualties from a nuclear attack is difficult. These numbers should be seen as evocative, not definitive. Fallout effects are ignored. For more information about the model, <u>click here</u> .
Effects radii for 15 kiloton surface burst (smallest to largest): V
Fireball radius: 230 m (0.17 km²)
Maximum size of the nuclear fireball; relevance to lived effects depends on height of detonation. If it touches the ground, the amount of radioactive fallout is significantly increased.
<ul> <li>Air blast radius (20 psi): 0.54 km (0.9 km²)</li> <li>At 20 psi overpressure, heavily built concrete buildings are severely damaged or demolished; fatalities approach 100%.</li> </ul>
Air blast radius (5 psi): 1.13 km (4 km <sup>2</sup> ) At 5 psi overpressure, most residential buildings collapse, injuries are universal, fatalities are widespread.
Radiation radius (500 rem): 1.34 km (5.64 km <sup>2</sup> ) 500 rem radiation dose; without medical treatment, there can be expected between 50% and 90% mortality from acute effects alone. Dying takes between several hours and several weeks.
Thermal radiation radius (3rd degree burns): 1.68 km (8.92 km <sup>2</sup> ) Third degree burns extend throughout the layers of skin, and are often pailess because they destroy the pain nerves. They can cause severe scarring or disablement, and can require amputation. 100% probability for 3rd degree burns

### Websites

For the primary and secondary research of this topic and Sheinkin's book, there is a wealth of information on the internet. Below you will find archival materials, photographic materials, exhibitions, governmental websites, and much more! Also included is Sheinkin's personal website. The websites provided are in alphabetical order. At the bottom of the page are non-profit campaigns and programs you may consider showing to your students.

#### **Primary Documents:**

http://www.amnh.org/exhibitions/past-exhibitions/einstein/peace-and-war/the-manhattan-project http://www.atomicheritage.org/bios http://www.atomicarchive.com/History/mp/ http://www.atomicheritage.org/history http://www.britannica.com/event/Manhattan-Project https://www.cia.gov/search?q=Manhattan+Project&site=CIA&output=xml\_no\_dtd&client=CIA&myAction=%2Fsearch&proxystylesheet=CIA&submitMethod=get http://energy.gov/management/office-management/operational-management/history/manhattan-project https://www.mi5.gov.uk/home/news/news-by-category/historical-material.html https://www.mi5.gov.uk/home/news/news-by-category/reports-and-publications.html http://nsarchive.gwu.edu/NSAEBB/NSAEBB162/index.htm http://www.pbs.org/wgbh/nova/military/ http://stevesheinkin.com/ http://www.theatlantic.com/magazine/archive/1946/12/if-the-atomic-bomb-had-not-been-used/376238/ http://www.trumanlibrary.org./photos/av-photo.htm http://www.ushistory.org/us/51f.asp

#### **Campaigns and Programs:**

http://www.atomicheritage.org/ http://www.icanw.org/



Kelly in 2002, is a nonprofit organization in Washington, DC, dedicated to the preservation and interpretation o the Manhattan Project and the Atomic Age and its legacy."





"The International Campaign to Abolish Nuclear Weapons (ICAN) is a global campaign coalition working to mobilize people in all countries to inspire, persuade and pressure their governments to initiate and support negotiations for a treaty banning nuclear weapons."

### Images

Below you will find some of many images available from the Atomic Age. Sources for the images are provided so that you and your students can search for many more!



© Getty Image

The atomic bomb known as "Little Boy" which was dropped on Hiroshima: taken from atomicheritage.org.



Manhattan Project team: taken from manhattanproject-voices.org.



American anti-Nazi propaganda "Loose talk helps our enemy so, let's keep our trap shut!": taken from atomicheritage.org.



Manhattan Project Emblem: taken from atomicheritage.org.



Trinity Test: taken from atomicharchive.org