

# STS 350 Atomic Consequences Spring 2002

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This is a course about the 'fallout' from the history of nuclear weapons. The course might also be seen as a study in proliferation; that is, how have nuclear weapons, to which few people have actually had access, come to colonize so much of the post World War II social, technical, political and cultural landscape. Understanding these issues demands that we examine not only politics and science, but also popular culture through the use of magazine articles, newspapers, films, and novels. We travel from the Smithsonian's Enola Gay exhibit and the surrounding controversy through the actual history of the Manhattan Project and the nuclear history of the Cold War to the precarious present where the proliferation of nuclear weapons has created multiple potential flash-points. Students are encouraged to bring materials of interest to the professor's attention. A class web page will offer other resources.

**Requirements:** Attendance at lecture is essential for understanding the class and the materials. There will be one in-class midterm examination, a writing assignment, and a final project. These three 'opportunities' will provide much of the basis for your final grade. Two optional discussion sections will be organized during the first two weeks of class; attendance is optional, but attendance will provide you with an opportunity to discuss the readings and lectures with our teaching assistant, Anuradha Chakravarty.

**Films:** Films are an essential element of this course. Atomic culture manifested itself most visibly in motion pictures and television programs. We will view several films. Screenings are on Wednesday nights at 7PM in 700 Clark Hall. I realize that many of you will have other obligations; all the movies are on reserve at Uris for your viewing pleasure. Watch the films; they are essential to the course.

**Required Books:** [Available at the Campus Store, many online booksellers, and on Reserve in Uris Library].

Kai Bird, Hiroshima's Shadow

John Hersey, Hiroshima

Fred Kaplan, Wizards of Armageddon

Nevil Shute, On the Beach

E.B. Sledge, With the Old Breed

Leo Szilard, Voice of the Dolphins

J.S. Walker, Prompt and Utter Destruction

Course Reader, available at the Campus Store.

## **Tentative Syllabus:**

22 January Introduction: Catch and Release

24 January

Who's afraid of the past? The Enola Gay Controversy

Start reading Bird, 317-364; newspaper articles in Reader; skim exhibit script in Judgment at the Smithsonian [Uris Reserve]. Discussion of different drafts of exhibit. The Air Force Association, Parts I, II

29 January

The problem with history

Finish Bird readings on exhibit and articles in reader.

Historians on the Enola Gay exhibit

30 January

700 Clark @ 7PM Hiroshima--Why we dropped the bomb

31 January

Imagining the Bomb

Heinlein in Reader.

5 February

Physics Becomes Destructive; or the Problem of Fission

700 Clark @ 7PM The Atomic Cafe

Jayne Loader's other atomic materials

7 February  
Deciding to Build a Bomb

Conant in Reader.

Einstein's Letter

12 February

Building Manhattan: Oak Ridge

Walker, 1-19; Sherwin, A World Destroyed [Uris Reserve], Part 1.

13 February

700 Clark @ 7PM Trinity and Beyond: The Atomic Bomb Movie

14 February

Building Manhattan: The Met Lab and Hanford

Atomic Spaces - documents, photographs and other materials drawn from a cultural history of the Manhattan Project.

Costs of the Manhattan Project, The - statistics from the Brookings Institute's Nuclear Weapons Costs Project.

Manhattan Project documents on-line.

19 February

The Magic Mountain: Los Alamos

Hoddeson essay in Peter Galison (ed), Big Science (Uris)

Interesting Exhibit on Children of the Manhattan Project

On Louis Slotkin's 1946 accident

20 February

700 Clark @ 7PM Why we fight: War comes to America

21 February

A German Bomb?

M. Walker, German National Socialism and the quest for nuclear power, Chapters 1-2, 7 (Uris)

Newly Released Letters on Heisenberg's 1941 visit to Bohr

26 February

The War in the Pacific

Sledge, Edgar in Reader; Walker Chapters 3-5.

27 February

700 Clark @ 7PM The Purple Heart

Racing to the Finish

Bird, 99-130; "Before Hiroshima" in Reader

5 March

The Great Decision?

Walker, Chapters 6-7; start Bird, 130-306, plus documents

6 March

700 Clark @ 7PM Black Rain

7 March

Baker 200 Midterm [Please note room]

Sample identification.

12 March

Manhattan over Tokyo

Start Hersey; Bird, 415-485

Fifty Years from Trinity: Ground Zero of the Atomic Age - site built around a section published in the Seattle Times.

Trinity and Beyond (The Atomic Bomb Movie) - an unsettling yet visually fascinating documentary presenting the history of nuclear weapons development and testing between

1945 and 1963.

Trinity: 50 Years Later - a report on the nuclear age's blinding dawn by the Albuquerque Journal.

Unofficial Trinity Site - Information on Trinity Site, New Mexico, where the first atomic bomb was exploded July 16, 1945. Tips for the visitor, links, references, and photos.

The official Enola Gay web site.

13 March

700 Clark @ 7PM Them!

14 March On the ground

Finish Hersey, Siemes in Reader, A-Bomb WWW Museum - includes a description of the first atomic bomb, photos from the Peace Memorial Museum in Hiroshima, and interviews with A-bomb survivors.

Damages Caused by Atomic Bombs - outlines the immediate effects of the explosion.

Excellent materials and photographs on the Nagasaki bomb

Official Manhattan Project Report

26 March

The Debate Begins

Walker, Chapter 7; Cousins to Truman in Reader

" Excellent Collection from the Bulletin of the Atomic Scientists

27 March

700 Clark @ 7PM Godzilla

28 March

The Strategic Bombing Survey

Survey and Bernstein in Reader

2 April

Writing Assignment

A New World?

Kaplan, Chapters 1-4

CNN Cold War Site

Conelrad, a must see site.

Cold War history on-line

RAND History 3 April

700 Clark @ 7PM Dr. Strangelove

4 April

The Problem of Super

Kaplan, Chapters 5-7

Map your very own thermonuclear blast!

9 April  
Final Project Guidelines  
Oppenheimer and Loyalty Question  
Bernstein in Reader.  
On Atomic Spies  
The Rosenberg Trial  
In the Matter of J. Robert Oppenheimer

10 April  
700 Clark @ 7PM Fail Safe

11 April  
Strategy in the Missile Age  
Cohn in Reader, finish Kaplan.

16 April  
Fear of a Garrison State: Eisenhower's Farewell Address

17 April  
700 Clark @ 7PM On the Beach

18 April  
Apocalyptic Fictions  
Start Shute

23 April  
Writing Assignment Due [Note date change] In the beginning was the end?  
Finish Shute

24 April  
700 Clark @ 7PM Seven Days in May

25 April  
The problem of civil defense  
Szilard, "Voice of the Dolphins"

30 April

Proliferation and the other bombs  
Avner Cohen, Israel and the Bomb, Chapters 1-3. (Uris)

1 May  
700 Clark @ 7PM Day the world ended

2 May Our present predicament