

HIST 0276: A Global History of the Atomic Age  
Brown University  
(Fall 2016)

Professors:

Ethan Pollock (Ethan\_Pollock@Brown.Edu)

Office Hours (Sharpe House #207): Tuesdays 11-12:30 or by appointment

Kerry Smith (Kerry\_Smith@Brown.Edu)

Office Hours (Sharpe House #308): Mondays 1-3 and by appointment.

### **Course Description**

Topic: We live in the atomic age. From 1945 to the foreseeable future, atomic weapons and nuclear energy have had (and will continue to have) a tremendous effect on global politics, the environment, and everyday life around the world. This course introduces students to three themes in this broader history: first, we examine the origins of nuclear proliferation and the global arms race; second, we explore cultural responses to the atomic age; third, we juxtapose the excitement over the unlimited promise of nuclear energy with the slow catastrophes that accompanied weapons development, the nuclear industry, and waste storage.

Skills: History is more than just a list of what happened where and when to whom. Empirical information is only the first step. The craft or art (or science?) of history involves interpreting facts in a convincing manner in dialogue with other historians. History is a debate about the meanings of what happened where and when to whom. In this course you will learn through written assignments and discussions how to understand and analyze historical debates and then to develop interpretations of your own.

Outcomes: The skills of assessing other people's arguments and building interpretations of one's own are, of course, applicable to fields other than history. The critical thinking skills you learn in this course should enrich and inform how you approach a full range of topics and decisions in your professional and everyday life. The course also seeks to enhance your ability to imagine the lives of others and in doing so to help you better understand and appreciate the world in which you live.

Participants: The course is open to all Brown students. Students should enjoy learning about the past and about how historians think about the past. They should also have a desire to improve their writing, analytical, and argumentation skills. We encourage everyone to consider writing a final research paper instead of the take home final exam.

### **Course Requirements**

In-class and on-line Participation (25 percent of the course grade)

In-class discussions are an important part of this course. They will give you a chance to analyze the readings, ask questions, formulate your own ideas, and learn from other students. You are expected to come to every class prepared to discuss the readings and to engage with the material presented in lecture. Before sections, we will use *Canvas* to facilitate on-line and in-class participation. The rubric for grading class participation is posted on *Canvas* under the title "Guidelines for Assessing Participation". If for some legitimate reason you must miss class (yes, even lectures), please notify us in advance.

Diagnostic Quiz (15 percent of the course grade; Graded "S/NC"):

On October 12 you will take an in-class diagnostic quiz. The quiz has three purposes: first, it will measure your comprehension of the basic materials we will have covered to that point; second, it will help us assess your proficiency in analyzing primary and secondary documents; third, it will give you an opportunity to provide us with early feedback about the course. The quiz will give us a sense of how the course is progressing, which readings are working well, and what areas students

need help with. It will be graded "S/NC": an "S" will neither raise nor lower your final course grade; an "NC" will be counted as 0 points for the assignment. **In-class on 10/12.**

#### Document Analysis (15 percent of the course grade)

How do historians build their interpretations of the past? Most of the time, primary documents provide the evidence for historical arguments. But no two historians read a document in exactly the same way. Even basic texts are open to interpretation. This assignment is designed to teach you how to work with a primary source with an eye to how it might be used as evidence to support a thesis or claim about the past. You might think of this exercise as "intra-textual" – most of what you will be doing will be looking at the content of a single primary document on its own terms. Details on the assignment will be posted on Canvas at least 2 weeks before it is due. **Due 11/4 at 11:00 AM.** Late assignments will be penalized a full letter grade for each day they are late.

#### Argument Analysis (20 percent of the course grade)

You can think of history as a series of overlapping conversations about the past. Each scholarly article or book is an attempt to further some aspect of the conversation – by presenting new material, by re-reading familiar material in a new way, by raising new topics for discussion, or by doing some combination of these things. This assignment is designed to help you understand both the content and the rhetoric of a scholarly article. Analyzing how professional historians make their arguments will in turn help you formulate and articulate your own interpretations. Details on the assignment will be posted on Canvas at least 2 weeks before it is due. **Due 11/23 at 11:00 AM.** Late assignments will be penalized a full letter grade for each day they are late.

#### Final Take-Home Paper or Final Research Paper (25 percent of the course grade)

The last assignment will give you the chance to apply the skills you have developed in the "document analysis" and the "argument analysis." You will have the choice of writing a final take-home paper or writing a final research paper. For the take-home we will provide prompts during the last week of class. Each exam should be approximately ten pages in length. Those who prefer to write a 10-12 page research paper on a topic of their own choosing instead of the take-home must get permission from us to do so. **The deadline for submitting a project proposal is noon on November 11. The deadline for both the take-home paper and the final research paper is 2:00 on December 13, 2016. (Same day as the final exam would have been.)**

#### Field trip to the Rhode Island Nuclear Science Center (part of class participation grade)

The center, in Southern Rhode Island, is home to the state's only functioning nuclear reactor. Every effort will be made to schedule our field trip at a time convenient for all. We will provide makeup assignments for those students unable or unwilling to participate in the field trip. Engagement with this part of the course will be graded as part of class participation.

No late exams or papers will be accepted without our prior consent.

#### **Notes**

1) Brown University is committed to full inclusion of all students. Students who, by nature of a documented disability, require academic accommodations should contact either Professor Pollock or Professor Smith during office hours. Students may also speak with Student and Employee Accessibility Services at 401-863-9588 to discuss the process for requesting accommodations.

2) Please review the university's Academic Code which is available on the Dean of the College's website. Ignorance about how to properly cite sources and avoid plagiarism will not be accepted as a legitimate reason for offenses against the code. Penalties for plagiarism or other violations of the code range from reprimand to dismissal from the class to expulsion from the university.

On page 5, the code states, "A student's name on any exercise (e.g., a theme, report, notebook, performance, computer program, course paper, quiz, or examination) is regarded as assurance that the exercise is the result of the student's own thoughts and study, stated in his or her own words, and produced without assistance, except as quotation marks, references, and footnotes acknowledge

the use of printed sources or other outside help." ("Academic and Student Conduct Codes," Brown University, 5)

3) The total of in-class hours and out-of-class work for all full credit courses at Brown is approximately 180 hours over the length of a 14-week semester. In this class, students seeking to maximize their learning can expect to spend 42 hours in class (3 hours per week, 14 weeks), 84 hours reading (approx. 6 hours per week, 14 weeks), 10 total hours on the document analysis, 12 hours reviewing for the quiz, 12 hours on the argument analysis, and 20 hours reviewing and studying for the final (or writing the final paper.) Actual times will vary for each student; final grades are not determined by the amount of time a student spends on the course.

**4) A somewhat heavy-handed note on the use of laptop computers, tablets, phones, during class:** Numerous studies (some cited [here](#) and [here](#) suggest that the use of laptops and other electronic devices in the classroom hampers learning, not only for those using them but for others in the classroom as well. They are a distraction. We all know how tempting it might be to check Facebook or email or surf the web during a discussion. The problem is, students tend to turn to their computers when a conversation is not grabbing their attention. But if they are using their computer for non class-related things, they are unlikely to know when the discussion has turned to something that may be of importance to them. If your peers can see your screen, chances are they will be distracted too. Your use of laptops is also a terrible hindrance for us -- as we depend on eye contact and other clues from you to determine when a point is sinking in, when we need to clarify something, when you might need a break, etc. This course works best when you are paying close attention. Our rule will be as follows: plan on taking notes without your computers. If you have reasons for using a computer in the classroom and think you can avoid the distractions, please see us and we can work something out. The goal is to foster learning.

### Resources and Texts

The course's Canvas site includes links to sites with primary documents, analyses and narratives relevant to the course. It also provides access to online films, readings, and helpful administrative information. Let Profs. Pollock or Smith know immediately if you are unable to locate or access any of the assigned readings or films. The texts listed below are available at the Brown Bookstore and on reserve at Rockefeller Library. (ER) means that a digital version of the book is available. All other readings available as PDFs via Canvas.

Aleksievich, Svetlana., and Keith. Gessen. *Voices From Chernobyl : the Oral History of a Nuclear Disaster*. 1st Picador ed. ed. New York: Picador, 2006.

Brown, Kate. *Plutopia : Nuclear Families, Atomic Cities, and the Great Soviet and American Plutonium Disasters*. 2013.

Holloway, David. *Stalin and the Bomb : The Soviet Union and Atomic Energy, 1939-1956*. New Haven: Yale University Press, 1994. (ER)

Munton, Don and David Welch, *The Cuban Missile Crisis*. Oxford: New York: Oxford University Press, 2011.

Rotter, Andrew Jon. *Hiroshima : The World's Bomb*. Oxford ; New York: Oxford University Press, 2008. (ER)

Sagan, Scott Douglas., and Kenneth N. Waltz. *The Spread of Nuclear Weapons : an Enduring Debate*. 3rd ed. ed. New York: W.W. Norton & Co., 2013.

### Films

*The Day After Trinity* (1981) on Canvas.

*Dr. Strangelove or: How I learned to Stop Worrying and Love the Bomb* (1964) on Canvas.

*The Polygon* (2014) on Kanopy.

*Nuclear Savage: The Islands of Secret Project 4.1* (2011) on Kanopy.

*The Red Button* (2014) on Kanopy.

*Containment* (2015) screening and on Canvas.

*The Day After* (1983) on Canvas.

## Lecture and Reading Schedule

### **Week 1: Why Study Atomic History?**

Wednesday, 9.7 Introductions (both)

Friday, 9.9 The Past in the Present: WMDs, Proliferation, Fallout, Energy (both)

**Read:** Rotter, *Hiroshima*, through p. 59. (ER)

Holloway, *Stalin and the Bomb*, pp. 1-48 (ER)

**Watch:** *The Day After Trinity* (Canvas)

### **Week 2 : From Fission to Atomic Weapons Projects**

Monday, 9.12 Getting to Fission (Smith)

Wednesday, 9.14 The German, Japanese and American Weapons Programs (Smith)

Friday, 9.16 Dropping the Bombs (Pollock)

**Read:** Rotter, *Hiroshima*, pp. 60-176. (ER)

Holloway, *Stalin and the Bomb*, pp. 49-133 (ER)

Sean L. Malloy, "'A Very Pleasant Way to Die': Radiation Effects and the Decision to Use the Atomic Bomb Against Japan." *Diplomatic History* 36, no. 3 (2012): 515-545. (Canvas)

"Notes of the Interim Committee Meeting, Thursday, May 31, 1945." (Canvas)

### **Week 3: Hiroshima, Nagasaki, and the International Response**

Monday, 9.19 What have the debates been about? (Smith)

Wednesday, 9.21 Remembering Hiroshima and Nagasaki (Smith)

Friday, 9.23 Section 1 meets, including discussion of inclusive pedagogy

**Read:** Rotter, *Hiroshima*, pp. 177-227. (ER)

John W. Dower, "The Bombed: Hiroshimas and Nagasakis in Japanese Memory," *Diplomatic History* 19, no. 2 (1995): 275-95. (Canvas)

Barton J. Bernstein, "Understanding the Atomic Bomb and the Japanese Surrender: Missed Opportunities, Little-Known Near Disasters, and Modern Memory." *Diplomatic History* 19, no. 2 (1995): 227. (Canvas)

John Hersey, "Hiroshima," *The New Yorker*, July 31, 1946, pp. 15-68. (Canvas)

### **Week 4: The Failures of International Control and the Soviet Bomb**

Monday, 9. What were the options? (Pollock)

Wednesday, 9.28 The Soviet Bomb (Pollock)

Friday, 9.30 Section 2 meets

**Read:** Rotter, *Hiroshima*, pp. 228-269. (ER)

Holloway, *Stalin and the Bomb*, pp. 172-272. (ER)

McGeorge Bundy, "The Failure of International Control," (chapter IV) in Bundy's *Danger and Survival*, pp. 130-196. (Canvas)

### **Week 5: Arms Races and Cold Wars**

Monday, 10. 3 The Super (Smith)

Wednesday, 10.5 The origins of the arm race (Pollock)

Friday, 10.7 Section 3 meets

**Read:** Peter Galison and Barton Bernstein. "In Any Light: Scientists and the Decision to Build the Superbomb, 1952-1954." *Historical Studies in the Physical and Biological Sciences* 19, no. 2 (1989): 267-347. (Canvas)

David Holloway, "Nuclear Weapons and the Escalation of the Cold War" in Melvyn Leffler and Odd Arne Westad, *The Cambridge History of the Cold War*, Volume 1 (Cambridge University Press, 2010), pp. 376-397. (Canvas)

Nina Tannenwald, "Stigmatizing the Bomb: Origins of the Nuclear Taboo." *International Security* 29, no. 4 (2005): 5-49. (Canvas)  
*Report of the General Advisory Committee.* (Canvas)

**Week 6: Quiz and Guest Lecture**

Monday, 10.10 NO CLASS; University Holiday  
Wednesday, 10.12 In-class diagnostic quiz  
Friday, 10.14 Guest Lecture: Alex Wellerstein on Nuclear Secrecy from Hiroshima to the Cold War.

Assignment: Spend at least 2 hours with Alex Wellerstein's blog <http://blog.nuclearsecrecy.com/> before his lecture. Pay attention to recent posts, as well as "Visualizations," links, etc.

**Week 7: Deterrence and Armageddon**

Monday, 10.17 Deterrence Theory (Smith)  
Wednesday, 10.19 Imagining the End (Smith)  
Friday, 10.21 Section 4 meets

**Read:** Brown, *Plutopia: Nuclear Families, Atomic Cities, and the Great Soviet and American Plutonium Disasters*, Parts 1 and 2.

Herman Kahn, "How Many Can be Saved?" *Bulletin of the Atomic Scientists* 15, no. 1 (1959): 30-34. (Canvas)

Herman Kahn, Erich Fromm and Michael Maccoby. "The Question of Civil Defense: A Debate." *Commentary* (1962): 1-23. (Canvas)

Edward Geist, "Was There a Real "Mineshaft Gap"? Bomb Shelters in the USSR, 1945-1962." *Journal of Cold War Studies* 14, no. 2 (2012): 3-28. (Canvas)

"Rhode Island Community Shelter Plan," 1969. (Canvas)

**Watch:** *Dr. Strangelove* (Canvas)

**Week 8: Fallout, Testing and Treaties**

Monday 10.24 American Test Regimes (Smith)  
Wednesday 10.26 Soviet Testing and the Road to the Test Ban Treaty (Pollock)  
Friday 10.28 Section 5 meets

**Read:** Brown, *Plutopia*, Part 3.

Mark D. Merlin and Ricardo M. Gonzalez. "Environmental Impacts of Nuclear Testing in Remote Oceania: 1946-96." In *Environmental Histories of the Cold War*, ed. John Robert McNeill, and Corinna R. Unger, pp. 167-202 (Canvas)

**Watch:** *The Polygon* and/or *Nuclear Savage* (Canvas)

**Week 9: The Cuban Missile Crisis**

Monday, 10.31 The View from The US and the USSR (Pollock)  
Wednesday, 11.2 The View from Cuba and Elsewhere (Smith)  
Friday, 11/4 Section 6 meets

**Document Analysis Due**

**Read:** Munton and Welch, *The Cuban Missile Crisis*, entire.

**Week 10: Proliferation and Close Calls**

Monday 11.7 Proliferation (Pollock)  
Wednesday 11.9 Close calls (Pollock)  
Friday 11.11 Section 7 meets

**Read:** Michael Gerson, "The Sino-Soviet Border Conflict: Deterrence, Escalation, and the Threat of Nuclear War in 1969." Center for Naval Analyses, 2010. (Canvas)

Eric Schlosser, "Almost Everything in 'Dr. Strangelove' was True," *New Yorker*, January 17, 2014. (Canvas)

Louis Menand, "Nukes of Hazard," *New Yorker*, September 30, 2013. (Canvas)

Scott Douglas Sagan and Kenneth N. Waltz. *The Spread of Nuclear Weapons*, Chapter 1 "More May be Better" and Chapter 2 "More Will Be Worse."

Browse documents from National Security Archives's [NuclearVault](#) "Briefing Papers" on various national nuclear projects.

**Watch:** *The Man Who Saved the World*

**Week 11: Nuclear Energy & Nuclear Waste**

Monday, 11.14 Pros and Cons of Nuclear Energy (Pollock)

Wednesday, 11.16 Mines, Plants and Subterranean Vaults (Smith)

Friday, 11.18 Section 8 meets

**Read:** Brown, *Plutopia*,

Part

4

Gabrielle Hecht, "The Work of Invisibility: Radiation Hazards and Occupational Health in South African Uranium Production." *International Labor and Working Class History* 81, (2012): 94-113. (Canvas)

**Re-watch** *Containment*

**Week 12: Chernobyl and its Legacies**

Monday, 11.21 Chernobyl as a Nuclear Disaster (Pollock)

Wednesday, 11.23 Chernobyl as a Symbol of a Nuclear Disaster (Pollock)

**Argument Analysis Due**

Friday, 11.25 NO CLASS – University Holiday

**Read:** Svetlana Aleksievich and Keith Gessen, *Voices From Chernobyl : the Oral History of a Nuclear Disaster*, entire.

**Week 13 Nuclear Fear**

Monday, 11.28 Nuclear Winter (Smith)

Wednesday, 11.30 Anti-Nuclear Activism (Smith)

Friday, 12.2 **Section 9 meets**

**Read:** Carl Sagan, "Nuclear War and Climate Catastrophe: Some Policy Implications." *Foreign Affairs* 62, no. 2 (1983): 257-92. (Via Canvas)

Paul Rubinson, "The global effects of nuclear winter: science and anti-nuclear protest in the United States and the Soviet Union during the 1980s." *Cold War History* 14, no. 1 (2014): 47-69. (Canvas)

**Primary Sources:** "Nuclear Debate Pamphlets" section of Wilson Center Digital History Archive.

**Watch:** *The Day After*

**Week 14 Final Thoughts**

Monday, 12.5 Nuclear Zero?

Wednesday, 12.7 Conclusions

Friday, 12.9 Section 10 meets

**Read:** Sagan and Waltz. *The Spread of Nuclear Weapons : an Enduring Debate*, Chapters 3-7.