

## POL 422: Nuclear Politics

Draft Syllabus updated 2012-01-27. Total pages 2614

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Class	Office
W 6:10-9:00 Vollum 234 <a href="https://moodle.reed.edu/course/view.php?id=1191">https://moodle.reed.edu/course/view.php?id=1191</a>	TuTh 2:30-4:00 or by appointment Vollum 241 <a href="http://www.reed.edu/~ahm/">http://www.reed.edu/~ahm/</a>

### Course Description and Goals

Full course for one semester. This course investigates the origins and effects of the spread of nuclear weapons and power at international and domestic levels. It begins with a discussion of the morality of nuclear technology, the motives different states have for obtaining them, and the problems with intelligence on states' progress. It continues with asking what nuclear strategies have been and should be used, then moves to sociological critiques of conventional understandings of nuclear weapons as well as debates over the safety of such weapons. The latter half of the class concentrates on case studies of a variety of programs, including proliferation networks and terrorism. Conference.

### Requirements

#### *Class Participation*

Students are required to actively participate in the class; they will have the opportunity to do so both during and outside of classroom hours. Beginning the third week of class, each student will be assigned to three days during the semester in which they will author a short reaction memo (300-400 words) expressing an opinion about that day's readings. These are NOT summaries; rather, they should attempt to agree or disagree with or compare and contrast the readings. Both should be posted in the forums on the course website by 8 PM the day before the readings are to be discussed. Students are required to read the memos and be prepared to respond to them the next day in class. Students are encouraged to respond to the postings online as part of their participation. If you miss a day of class for any reason whatsoever, you may make it up by posting a summary of each of the readings to Moodle. In order to make up missed days from the first half of the semester, these must be posted before the first day of classes after the break; from the second half, by the end of reading period.

#### *Readings*

Readings for the course are drawn from four books and E-Readings, which can be downloaded directly from the links on the syllabus. Students may also download every E-Reading in the syllabus from the Moodle link using Endnote, which is provided by CIS through [a site-license at Reed](#). Students are expected to bring a copy of the readings to class every day for reference. Readings marked "Further" on the syllabus are other relevant articles or books; they are not required for class. Students who have a particular interest in the topics in question are encouraged to read these pieces and to incorporate them into their assignments. Four books are available at the bookstore; two of them are available as e-books at the library, and all except Hymans are available from Amazon and other booksellers. Hymans will be in the bookstore in mid- to late-February.

#### *Required Books*

- Charles D Ferguson (2011) *Nuclear Energy*. New York, New York: Oxford University Press <<http://www.worldcat.org/oclc/721999095>>, ISBN 9780199759460[[Library eBook](#)][[Amazon](#)]
- Jacques E. C. Hymans (2012) *Achieving Nuclear Ambitions: Scientists, Politicians and Proliferation*. Cambridge University Press, ISBN 0521132258
- John E Mueller (2010) *Atomic Obsession: Nuclear Alarmism from Hiroshima to Al-Qaeda*. Oxford; New York: Oxford University Press <<http://www.worldcat.org/oclc/313665231>>, ISBN 019538136X[[Library eBook](#)][[Amazon](#)]
- Scott D. Sagan and Kenneth N. Waltz (2003) *The Spread of Nuclear Weapons: A Debate Renewed*. 2nd edition. New York, NY: W.W. Norton <<http://www.worldcat.org/oclc/49692365>>, ISBN 0393977471[[Library](#)][[Amazon](#)]

### *Course Website*

Discussion and collaboration is available to you through the website; supplemental and core readings will be made available there; and assignments will be turned in electronically using the site.

### *Assignments*

There is one assignment for this course, a lengthy (2500-5000 word) essay analyzing anything related to nuclear politics; it is due on Friday, April 27 at 11:59 PM.

### *Citation and Plagiarism*

A major goal of this course is to encourage good reading, research, and citation habits. Good research requires good documentation of sources and the ability to put one's own analysis and thoughts into a paper rather than relying on others. When in doubt as to whether you should cite something, always do it. Citations are required for ideas as well as facts, and are imperative even if you are not directly quoting authors. Make sure that you provide as specific a citation as possible; if an author discusses an idea in one section or one page, cite the specific section or page instead of the full article or book. I usually recommend that students use in-text author-date citation with full Chicago Manual of Style citations; see their Citation Quick Guide: <[http://www.chicagomanualofstyle.org/tools\\_citationguide.html](http://www.chicagomanualofstyle.org/tools_citationguide.html)>.

However, style is less important than the cites being present. If you use an idea or a fact without attribution, you are plagiarizing someone else's work. Plagiarism and cheating are violations of academic integrity and thus violations of Reed's Honor Principle. As specified by Reed's academic conduct policy, such violations will result in disciplinary actions, including suspension or permanent dismissal from the College. Plagiarism is submitting a piece of work which in part or in whole is not entirely the student's own work without attributing those same portions to their correct source. For examples of plagiarism and how to avoid it, see <<http://www.csub.edu/ssric-trd/howto/plagiarism.htm>> For more information on Reed's policies see: <[http://www.reed.edu/academic/gbook/comm\\_pol/acad\\_conduct.html](http://www.reed.edu/academic/gbook/comm_pol/acad_conduct.html)>.

Plagiarism often comes as the result of a student being up against a deadline without being able to meet it. If you are having trouble meeting a deadline for whatever reason, please contact me. Because every assignment is a paper that will be handed out well in advance, I have no problem giving extensions. It is always better to ask for more time than to plagiarize. When you ask for an extension, you should a) explain what events are causing you to miss the deadline and b) request an amount of time proportional to the interfering events. You may ask for an extension up to, but not exceeding, the amount of time remaining for the assignment, except for cases of emergencies.

### *Accommodations*

If you'd like to request academic accommodations due to a disability, please contact Learning Resources Director Rebecca Cohen, Director of Disability Support Services, 503-517-7921, [cohenr@reed.edu](mailto:cohenr@reed.edu). If you have a letter from Student Services, please let me know so we can discuss those accommodations.

## 25-Jan: 01.2. The Bomb, Dread, + Eternity: The Atomic Cafe (film) (43 Pages)

- John E Mueller (2010) Apocalyptic Visions, Worst-Case Preoccupations, Massive Expenditures. In Mueller *Atomic Obsession: Nuclear Alarmism from Hiroshima to Al-Qaeda*. chapter 5, 55–72
- Michael Mandelbaum (1980) The Bomb, Dread, and Eternity. *International Security*. 5(2)Autumn, 3–23 <<http://dx.doi.org/10.2307/2538442>>
- Bulletin of the Atomic Scientists (2012) *Doomsday Clock Moves 1 Minute Closer to Midnight*. January 10 <http://www.thebulletin.org/content/media-center/announcements/2012/01/10/doomsday-clock-moves-1-minute-closer-to-midnight> <<http://www.thebulletin.org/content/media-center/announcements/2012/01/10/doomsday-clock-moves-1-minute-closer-to-midnight>>

## 1-Feb: 02.1. Technology: How do you make a nuclear weapon? What can they do? (144 Pages)

- John E Mueller (2010) Effects. In Mueller *Atomic Obsession: Nuclear Alarmism from Hiroshima to Al-Qaeda*. chapter 1, 3–15
- John E Mueller (2010) Overstating the Effects. In Mueller *Atomic Obsession: Nuclear Alarmism from Hiroshima to Al-Qaeda*. chapter 2, 17–28
- Charles D Ferguson (2011) Fundamentals. In Ferguson *Nuclear Energy*. chapter 1, 3–52
- Dietrich Schroerer (1984) Chap. 2-3 in Science, technology, and the nuclear arms race. New York, NY: Wiley, 14–71, ISBN 0471881414
- Lynn Eden (2004) City on Fire. *Bulletin of the Atomic Scientists*. 60(1)January/February, 33–43 <<http://dx.doi.org/10.2968/060001011>>

### Further

- Lynn Eden (2003) *Whole World on Fire*. Ithaca, NY: Cornell University Press <<http://www.loc.gov/catdir/toc/ecip045/2003012695.html>>, ISBN 0801435781
- Lynn Eden (2003) Chap. 1 In Eden *Whole World on Fire*
- Lynn Eden (2003) Complete Ruin. In Eden *Whole World on Fire*. chapter 1, 15–36
- Samuel Glasstone and Philip J. Dolan (1977) Chap. 12 in The Effects of Nuclear Weapons. United States Government Printing, 541–643, ISBN 0160020360
- E. R. McConnell, G. O. Sampson, and J. M. Sharf (1956) *The Effect of Nuclear Explosions on Commercially Packaged Beverages*. Food and Drug Administration Technical report WT-1213 <<http://www.thesmokinggun.com/archive/nuclearcan1.html>>
- Robert Serber (1943) *The Los Alamos primer: the first lectures on how to build an atomic bomb*. Los Alamos National Laboratory Los Alamos Report LA-1 <<http://www.fas.org/sgp/othergov/doe/lanl/docs1/00349710.pdf>>
- Herbert F. York (1976) The GAC Report of October 30, 1949. In *The Advisors : Oppenheimer, Teller, and the Superbomb*. San Francisco, CA: W. H. Freeman <<http://www.worldcat.org/oclc/1531933>>, ISBN 0716707187, 150–159

## 1-Feb: 02.2. Hiroshima: Why did we use the bomb? Should we have? (81 Pages)

- Gar Alperovitz (1995) Hiroshima: Historians Reassess. *Foreign Policy*.(99)Summer, 15–34 <<http://dx.doi.org/10.2307/1149003>>, ISSN 00157228
- Barton J. Bernstein (1995) The Atomic Bombings Reconsidered. *Foreign Affairs*. 74(1)January/February, 135–152 <<http://www.jstor.org/stable/20047025>>, ISSN 00157120
- Hugh Gusterson (2004) Hiroshima, the Gulf War, and the Disappearing Body. In Gusterson *People of the Bomb*. chapter 4, 63–81
- J. Samuel Walker (2005) Recent Literature on Truman's Atomic Bomb Decision: A Search for Middle Ground. *Diplomatic History*. 29(2)April, 311–334 <<http://dx.doi.org/10.1111/j.1467-7709.2005.00476.x>>

### Further

- Barton J. Bernstein (1991) Eclipsed by Hiroshima and Nagasaki: Early Thinking about Tactical Nuclear Weapons. *International Security*. 15(4)Spring, 149–173 <<http://dx.doi.org/10.2307/2539014>>, ISSN 01622889
- Rufus E. Miles, Jr. (1985) Hiroshima: The Strange Myth of Half a Million American Lives Saved. *International Security*. 10(2)Autumn, 121–140 <<http://dx.doi.org/10.2307/2538830>>, ISSN 01622889

### 8-Feb: 03.1. Nuclear Power: What are the Benefits? (56 Pages)

- Charles D Ferguson (2011) Energy Security and Costs of Building Power Plants. In Ferguson *Nuclear Energy*. chapter 2, 53–85
- Charles D Ferguson (2011) Climate Change. In Ferguson *Nuclear Energy*. chapter 3, 86–102
- Charles D Ferguson (2011) Sustainable Energy. In Ferguson *Nuclear Energy*. chapter 8, 203–208

### 8-Feb: 03.2. Nuclear Power: What are the Risks? (207 Pages)

- Charles D Ferguson (2011) Safety. In Ferguson *Nuclear Energy*. chapter 5, 137–172
- Charles D Ferguson (2011) Physical Security. In Ferguson *Nuclear Energy*. chapter 6, 173–188
- Charles D Ferguson (2011) Radioactive Waste Management. In Ferguson *Nuclear Energy*. chapter 7, 189–202
- Paul R. Schulman (1993) The Negotiated Order of Organizational Reliability. *Administration & Society*. 25(3)November, 353–372 <<http://dx.doi.org/10.1177/009539979302500305>>
- George W. Hinman et al. (1993) Perceptions of Nuclear and Other Risks in Japan and the United States. *Risk Analysis*. 13(4)August, 449–455 <<http://dx.doi.org/10.1111/j.1539-6924.1993.tb00745.x>>
- John F. Ahearne et al. (1997) Special Issue: Radioactive Waste. *Physics Today*. 50(6)June, 22–62 <<http://www.physicstoday.org/resource/1/PHTOAD/v50/i6?ver=pdfcov>>
- Charles Perrow (1999) Chap. 1-2 in *Normal Accidents: Living with High-Risk Technologies*. New York, NY: Basic Books, 15–61, ISBN 046505143X
- M. V. Ramana (2011) *Beyond Our Imagination: Fukushima and the Problem of Assessing Risk*. April 19 Bulletin of the Atomic Scientists website <<http://thebulletin.org/web-edition/features/beyond-our-imagination-fukushima-and-the-problem-of-assessing-risk>>
- Frank N. von Hippel (2011) The Radiological and Psychological Consequences of the Fukushima Daiichi Accident. *Bulletin of the Atomic Scientists*. 67(5)September, 27–36 <<http://dx.doi.org/10.1177/0096340211421588>>
- Allison Macfarlane (2011) It's 2050: Do You Know where Your Nuclear Waste is? *Bulletin of the Atomic Scientists*. 67(4)July, 30–36 <<http://dx.doi.org/10.1177/0096340211413357>>
- Charles Perrow (2011) *Fukushima and the Inevitability of Accidents*. December 1 Bulletin of the Atomic Scientists website <<http://thebulletin.org/web-edition/features/fukushima-and-the-inevitability-of-accidents>>

#### Further

- Jonathan Koomey and Nate Hultman (2011) *No, the Three Mile Island Accident in 1979 Was Not a Major Cause of US Nuclear Power's Woes — Thinkprogress*. June 25 ThinkProgress website <<http://thinkprogress.org/romm/2011/06/25/244122/three-mile-island-accident-nuclear-power/>>

### 15-Feb: 04.1. Motives: Why do states seek the bomb? (93 Pages)

- John E Mueller (2010) Proliferation: Slow and Substantially Inconsequential. In Mueller *Atomic Obsession: Nuclear Alarmism from Hiroshima to Al-Qaeda*. chapter 7, 89–102
- John E Mueller (2010) The Limited Appeal and Value of Nuclear Weapons. In Mueller *Atomic Obsession: Nuclear Alarmism from Hiroshima to Al-Qaeda*. chapter 8, 103–114
- Ariel E. Levite (2002/2003) Never Say Never Again: Nuclear Reversal Revisited. *International Security*. 27(3)Winter, 59–88 <<http://dx.doi.org/10.1162/01622880260553633>>
- Itty Abraham (2006) The Ambivalence of Nuclear Histories. *Osiris*. 21(1)February, 49–65 <<http://dx.doi.org/10.1086/507135>>
- Scott D. Sagan (2011) The Causes of Nuclear Weapons Proliferation. *Annual Review of Political Science*. 14(1), 225–244 <<http://dx.doi.org/10.1146/annurev-polisci-052209-131042>>, ISSN 1094–2939

#### Further

- Jacques E. C. Hymans (2006) Theories of Nuclear Proliferation: The State of the Field. *Nonproliferation Review*. 13(3)November, 455–465 <<http://dx.doi.org/10.1080/10736700601071397>>
- Tanya Ogilvie-White (1996) Is There a Theory of Nuclear Proliferation? An Analysis of the Contemporary Debate. *Nonproliferation Review*. 4(1)Fall, 43–60

- Ogilvie-White, 43–60
- Scott D. Sagan (1996/97) Why Do States Build Nuclear Weapons? Three Models in Search of a Bomb. *International Security*. 21(3)Winter, 54–86 <<http://dx.doi.org/10.2307/2539273>>
- Scott D. Sagan (2010) Nuclear Latency and Nuclear Proliferation. In Potter and Mukhatzhanova *Forecasting Nuclear Proliferation Volume 1*. chapter 5, 80–101

### 15-Feb: 04.2. Motives: How do we know? (104 Pages)

- Sonali Singh and Christopher R. Way (2004) The Correlates of Nuclear Proliferation: A Quantitative Test. *Journal of Conflict Resolution*. 48(6)December, 859–885 <<http://dx.doi.org/10.1177/0022002704269655>>
- Dong-Joon Jo and Erik Gartzke (2007) Determinants of Nuclear Weapons Proliferation: A Quantitative Model. *Journal of Conflict Resolution*. 51(1)February, 167–194 <<http://dx.doi.org/10.1177/0022002706296158>>
- Alexander H. Montgomery and Scott D. Sagan (2009) The Perils of Predicting Proliferation. *Journal of Conflict Resolution*. 53(2)April, 302–328 <<http://dx.doi.org/10.1177/0022002708330581>>
- Jacques E. C. Hymans (2010) When Does a State Become a “Nuclear Weapons State”? An Exercise in Measurement Validation. In Potter and Mukhatzhanova *Forecasting Nuclear Proliferation Volume 1*. chapter 6, 102–123

### 22-Feb: 05.1. Intel: Can we really know who is seeking the bomb? (102 Pages)

- Defence Intelligence Agency (1974) *PRC Strategic Forces: How Much is Enough?* Department of Defense Defense Intelligence Estimate DIE FE 7-74
- Jeffrey T. Richelson (1994) Can the Intelligence Community Keep Pace with the Threat? In Mitchell Reiss and Robert S. Litwak, editors *Nuclear Proliferation after the Cold War*. Washington, DC: Woodrow Wilson Center Press, Woodrow Wilson Center special studies, ISBN 0943875579. chapter 13, 291–308
- David Albright (2003) *Iraq’s Aluminum Tubes: Separating Fact from Fiction*. December 5 <<http://www.isis-online.org/publications/iraq/IraqAluminumTubes12-5-03.pdf>>
- National Intelligence Council (2007) *Iran: Nuclear Intentions and Capabilities*. Office of the Director of National Intelligence National Intelligence Estimate, 9 pages
- Alexander H. Montgomery and Adam J. Mount (2011) *Misoverestimation: Explaining US Failures to Predict Nuclear Weapons Programs*. January 10 Intelligence and Nuclear Proliferation, King’s College London
- William Wan (2011) Georgetown Students Shed Light on China’s Tunnel System for Nuclear Weapons. *The Washington Post*. November 29, 5 <[http://www.washingtonpost.com/world/national-security/georgetown-students-shed-light-on-chinas-tunnel-system-for-nuclear-weapons/2011/11/16/gIQA6AmKAO\\_story.html](http://www.washingtonpost.com/world/national-security/georgetown-students-shed-light-on-chinas-tunnel-system-for-nuclear-weapons/2011/11/16/gIQA6AmKAO_story.html)>, ISSN 0190–8286
- Hui Zhang (2012) *The Defensive Nature of China’s “Underground Great Wall”*. January 16 Bulletin of the Atomic Scientists website <<http://www.thebulletin.org/web-edition/features/the-defensive-nature-of-chinas-underground-great-wall>>

### 22-Feb: 05.2. Strategy: What should we do with it? (134 Pages)

- Bernard Brodie (1959) Chap. 8 in *Strategy in the missile age*. Princeton, NJ: Princeton University Press, 264–304
- Richard Pipes (1977) Why the Soviet-Union Thinks It Could Fight and Win a Nuclear War. *Commentary*. 64, 21–34
- Carol Cohn (1987) Sex and Death in the Rational World of Defense Intellectuals. *Signs*. 12(4)Summer, 687–718 <<http://dx.doi.org/10.1086/494362>>
- Scott D. Sagan (2000) The Commitment Trap: Why the United States Should Not Use Nuclear Threats to Deter Biological and Chemical Weapons Attacks. *International Security*. 24(4)Spring, 85–115 <<http://dx.doi.org/10.1162/016228800560318>>
- Department of Defense (2010) *Nuclear Posture Review Report (Front Matter)*.

#### Further

- J. D. Crouch (2002) *Special Briefing on the Nuclear Posture Review*. January 9 DoD News Briefing by the Assistant Secretary of Defense for International Security Policy <<http://www.defenselink.mil/transcripts/transcript.aspx?transcriptid=1108>>

- Department of Defense (2001) *Nuclear Posture Review (Excerpts)*. <<http://www.globalsecurity.org/wmd/library/policy/dod/npr.htm>>
- Department of Defense (2010) *Nuclear Posture Review Report*.
- Herman Kahn (1970) Issues of Thermonuclear War Termination. *Annals of the American Academy of Political and Social Science*. 392November, 133–172 <<http://dx.doi.org/10.1177/000271627039200113>>, ISSN 00027162
- National Security Council (2006) *National Security Strategy*. March
- Lawrence Freedman (1986) The First Two Generations of Nuclear Strategists. In Peter Paret, Gordon Alexander Craig and Felix Gilbert, editors *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*. Princeton, NJ: Princeton University Press, ISBN 0691027641. chapter 25, 735–778
- Roger Speed and Michael May (2005) Dangerous Doctrine. *Bulletin of the Atomic Scientists*. 61(2)March/April, 38–49 <<http://dx.doi.org/10.2968/061002012>>
- Marc Trachtenberg (1988-1989) A "Wasting Asset": American Strategy and the Shifting Nuclear Balance, 1949-1954. *International Security*. 13(3)Winter, 5–49 <<http://dx.doi.org/10.2307/2538735>>

### **29-Feb: 06.1. Impact: What has the spread of nuclear weapons led to? (132 Pages)**

- Michael Horowitz (2009) The Spread of Nuclear Weapons and International Conflict: Does Experience Matter? *Journal of Conflict Resolution*. 53(2), 234–257 <<http://dx.doi.org/10.1177/0022002708330388>>
- Robert Rauchhaus (2009) Evaluating the Nuclear Peace Hypothesis: A Quantitative Approach. *Journal of Conflict Resolution*. 53(2), 258–277 <<http://dx.doi.org/10.1177/0022002708330387>>
- Kyle Beardsley and Victor Asal (2009) Winning with the Bomb. *Journal of Conflict Resolution*. 53(2), 278–301 <<http://dx.doi.org/10.1177/0022002708330386>>
- Erik Gartzke and Dong-Joon Jo (2009) Bargaining, Nuclear Proliferation, and Interstate Disputes. *Journal of Conflict Resolution*. 53(2), 209–233 <<http://dx.doi.org/10.1177/0022002708330289>>
- Erik Gartzke and Matthew Kroenig (2009) A Strategic Approach to Nuclear Proliferation. *Journal of Conflict Resolution*. 53(2), 151–160 <<http://dx.doi.org/10.1177/0022002708330039>>
- Samuel Black (2010) *The Changing Political Utility of Nuclear Weapons: Nuclear Threats from 1970 to 2010*. August Stimson Center

#### *Review*

- Montgomery and Sagan, 302–328

### **29-Feb: 06.2. Impact: Are we sure about that? (112 Pages)**

- John E Mueller (2010) Deterring World War III: Essential Irrelevance. In Mueller *Atomic Obsession: Nuclear Alarmism from Hiroshima to Al-Qaeda*. chapter 3, 29–42
- John E Mueller (2010) Modest Influence on History. In Mueller *Atomic Obsession: Nuclear Alarmism from Hiroshima to Al-Qaeda*. chapter 4, 43–54
- T. V. Paul (1995) Nuclear Taboo and War Initiation in Regional Conflicts. *Journal of Conflict Resolution*. 39(4)December, 696–717 <<http://dx.doi.org/10.1177/0022002795039004005>>
- Jutta Weldes (1999) The Cultural Production of Crises: U.S. Identity and Missiles in Cuba. In Jutta Weldes, editor *Cultures of Insecurity: States, Communities, and the Production of Danger*. Minneapolis, MN: University of Minnesota Press, ISBN 081663307X, 35–62
- Nina Tannenwald (1999) The Nuclear Taboo: The United States and the Normative Basis of Nuclear Non-Use. *International Organization*. 53(3)Summer, 433–468 <<http://dx.doi.org/10.1162/002081899550959>>

#### *Review*

- Graham T. Allison (1969) Conceptual Models and the Cuban Missile Crisis. *American Political Science Review*. 63(3)September, 689–718 <<http://dx.doi.org/10.2307/1954423>>

### **7-Mar: 07.1. Sociology of Science: What social configurations aid or prevent weapons? (186 Pages)**

- Jacques E. C. Hymans (2012) A Theory of Nuclear Weapons Project Efficiency and Inefficiency. In Hymans *Achieving Nuclear Ambitions*. chapter 2, 41–78
- Jacques E. C. Hymans (2012) The Puzzle of Declining Nuclear Weapons Project Efficiency. In Hymans *Achieving Nuclear Ambitions*. chapter 1, 3–37
- Steven Flank (1993-1994) Exploding the Black Box: The Historical Sociology of Nuclear Proliferation. *Security Studies*. 3(2)Winter, 259–294 <<http://dx.doi.org/10.1080/09636419309347549>>
- Donald MacKenzie and Graham Spinardi (1995) Tacit Knowledge, Weapons Design, and the Uninvention of Nuclear Weapons. *American Journal of Sociology*. 101(1), 44–99 <<http://dx.doi.org/10.1086/230699>>
- Hugh Gusterson (2001) The Virtual Nuclear Weapons Laboratory in the New World Order. *American Ethnologist*. 28(2)May, 417–437 <<http://dx.doi.org/10.1525/ae.2001.28.2.417>>

#### *Further*

- Geoffrey Forden (2009) *PCS: The How of Proliferation*. August 6 Armscontrolwonk website <<http://www.armscontrolwonk.com/2410/pcs-the-how-of-proliferation>>
- Geoffrey Forden (2009) *PCS: The How of Proliferation, Part 2*. August 6 Armscontrolwonk website <<http://www.armscontrolwonk.com/2413/pcs-the-how-of-proliferation-part-2>>
- Hugh Gusterson (2004) Nuclear Weapons Testing as Scientific Ritual. In Gusterson *People of the Bomb*. chapter 8, 147–164
- Hugh Gusterson (2011) The Assault on Los Alamos National Laboratory: A Drama in Three Acts. *Bulletin of the Atomic Scientists*. 67(6)November, 9–18 <<http://dx.doi.org/10.1177/0096340211426631>>
- Donald A. MacKenzie (1999) Theories of Technology and the Abolition of Nuclear Weapons. In Donald A. MacKenzie and Judy Wajcman, editors *The Social Shaping of Technology*. Philadelphia, PA: Open University Press, ISBN 0335199143. chapter 30, 419–442

### **7-Mar: 07.2. Sociology of Science: How did China succeed and Iraq fail? (78 Pages)**

- Jacques E. C. Hymans (2012) Spinning in place: Iraq's fruitless quest for nuclear weapons. In Hymans *Achieving Nuclear Ambitions*. chapter 3, 79–123
- Jacques E. C. Hymans (2012) How did China's nuclear weapons project succeed? In Hymans *Achieving Nuclear Ambitions*. chapter 4, 124–156

## **Spring Break: No Class**

### **21-Mar: 09.1. Sensitive Nuclear Cooperation: Does it work? (90 Pages)**

- Jacques E. C. Hymans (2012) Empirical extensions: Libya, Pakistan, North Korea, Iran. In Hymans *Achieving Nuclear Ambitions*. chapter 7, 239–261
- Alexander H. Montgomery (2005) Ringing in Proliferation: How to Dismantle an Atomic Bomb Network. *International Security*. 30(2)Fall, 153–187 <<http://dx.doi.org/10.1162/016228805775124543>>
- Matthew Kroenig (2009) Importing the Bomb: Security Threats, Sensitive Nuclear Assistance, and Nuclear Proliferation. *Journal of Conflict Resolution*. 53(2)April, 161–180 <<http://dx.doi.org/10.1177/0022002708330287>>
- Alexander H. Montgomery (2010) Stop Helping Me: When Nuclear Assistance Impedes Nuclear Programs. In *Nuclear Renaissance and International Security workshop*. Center for International Strategy, Technology, and Policy, Sam Nunn School of International Affairs, Georgia Institute of Technology
- Joshua Pollack (2012) The Secret Treachery of A.Q. Khan. *Playboy*. January/February, 12 <<http://www.playboy.com/magazine/the-secret-treachery-of-a-q-khan>>

#### *Further*

- David Albright and Susan Basu (2006) *India's Gas Centrifuge Program: Stopping Illicit Procurement and the Leakage of Technical Centrifuge Know-How*. March 10 Institute for Science and International Security <<http://www.isis-online.org/publications/southasia/indianprocurement.pdf>>
- Chaim Braun and Christopher Chyba (2004) Proliferation Rings: New Challenges to the Nuclear Nonproliferation Regime. *International Security*. 29(2)Fall, 5–49 <<http://dx.doi.org/10.1162/0162288042879959>>

- Matthew Bunn (2007) Bombs We Can Stop. *American Scientist*. 95(5)September-October, 452–454 <<http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=26317527>>
- Sheena E. Chestnut (2007) Illicit Activity and Proliferation: North Korean Smuggling Networks. *International Security*. 32(1)Summer, 80–111 <<http://dx.doi.org/10.1162/isec.2007.32.1.80>>
- Siegfried S. Hecker and William Liou (2007) Dangerous Dealings: North Korea’s Nuclear Capabilities and the Threat of Export to Iran. *Arms Control Today*. 37(2)March, 8 <[http://www.armscontrol.org/act/2007\\_03/heckerliou.asp?print](http://www.armscontrol.org/act/2007_03/heckerliou.asp?print)>
- Gaurav Kampani (2002) Second Tier Proliferation: The Case of Pakistan and North Korea. *Nonproliferation Review*. 9(3)Fall-Winter, 107–116 <<http://cns.miis.edu/pubs/npr/vol09/93/93kamp.pdf>>
- William Langewiesche (2005) The Wrath of Khan. *Atlantic Monthly*. November, 23 <<http://www.theatlantic.com/doc/print/200511/aq-khan>>, ISSN 1072–7825

### **21-Mar: 09.2. Civilian Nuclear Cooperation: Does it cause nuclear programs? (155 Pages)**

- Charles D Ferguson (2011) Proliferation. In Ferguson *Nuclear Energy*. chapter 4, 103–136
- Jacques E. C. Hymans (2012) Proliferation implications of civil nuclear cooperation: theory and a case study of Tito’s Yugoslavia. In Hymans *Achieving Nuclear Ambitions*. chapter 5, 157–202
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