

The International History of the Nuclear Age: Proliferation, Arms Control and Strategy, 1945-2014

13 May - 23 May 2014 Allumiere, Italy

Leopoldo Nuti and Christian Ostermann, Co-Directors

Organized by:

The Nuclear Proliferation International History Project (NPIHP)

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Course Description:

The goal of the Nuclear History Boot Camp is to provide participants with a broad understanding of the history of nuclear weapons from 1945 to the present. Exploring how they influenced policy, why they proliferated in some countries but not in others, and how best to deal with nuclear weapons today are among our primary course goals. The central principle of the course is the primacy and fundamental importance of history and historical research in managing the issues of the present and future. We hope that these ten days will stimulate original, unorthodox and creative thinking.



Instructor Identification:

Instructor Name	Affiliation	Email Address
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Staff:

The Nuclear Boot Camp staff is on-hand to help you with any questions ranging from, "I really hope I locked the door to my apartment before my flight" right up through, "I still don't understand what the big deal is about MIRVs vis a vis arms control verification!" Just ask and we'll do our best to get you sorted out.

- Lodovica Clavarino, Università Roma Tre
- Evan Pikulski, Woodrow Wilson Center
- Giordana Pulcini, Università Roma Tre

Prior to the boot camp, you can reach any or all of us at our shared email address: nuclearbootcamp@uniroma3.it.

Grading:

Students who successfully complete the boot camp will receive three course credits (or, on a European scale 8 ECTS) from the Università degli Studi Roma Tre. While you must consult your home institution to determine whether and how this course credit will transfer, Roma Tre will support you in your effort to document this important academic accomplishment.

50% of your grade will be based on the quality of your participation in the seminar. In order to participate successfully you must—at minimum—arrive at the boot camp having completed your assigned readings, join actively in all seminar discussions, and present during a group discussion which draws upon your own background in nuclear history.

Nuclear history is a field in which *nobody* has all of the answers. This is one of the reasons that this syllabus emphasizes discussions rather than lectures. You should use the Nuclear Boot Camp as an



opportunity to ask questions, test out new ideas and exchange perspectives with the other participants. Do not be afraid to speak up and take intellectual risks!

The other 50% of your grade will be based upon the quality of your group policy-briefing. More details on this are provided below.

Required Advance Work:

Participants in this year's nuclear boot camp come from all over the world, and each individual who has been accepted has a different background, different interests and different academic accomplishments. In order to ensure that we all share a common baseline knowledge level—and to ensure that we all come armed with a variety of perspectives—you must read the "Boot Camp Reader" that we will be sending soon.

This reader contains a selection of both secondary source articles and chapters that represent important milestones in the field, a variety of raw primary source documents contributed by NPIHP's partners and your instructors, and readings selected by your peers, which will familiarize you with their group discussion topics.

By the beginning of the boot camp you will need to absorb the information covered in the readings so that they can inform your participation in boot camp discussions and activities. Please note, however, that we do not expect you to show up knowing all of the answers! A well thought-out question can sometimes be more valuable than an answer. The importance of active and sustained participation by everyone at the camp is impossible to overstate.

In addition to contributing thoughts, questions and ideas during each session—whether led by an instructor or a fellow student—everyone will be asked to lead a discussion related to their own research, and to work on a team to prepare a policy briefing.

Group discussions:

Each student will lead, or co-lead a group discussion moderated by one of the instructors on some interesting aspect(s) of their own research. Like the rest of the boot camp, these sessions will be seminar style, beginning with a short, 12 minute introduction each presenter's research on the topic at hand, followed by a Q&A discussion period.

To prepare for a successful discussion, the leader(s) of each discussion should:

- 1. <u>As soon as possible</u>, write to Giordana and Lodovica if the suggested title found in the syllabus (below) should be changed,
- 2. <u>No later than 30 April 2014</u>, send Giordana one suggested readings to introduce your topic. Secondary sources are fine, primary sources are preferred!
- 3. In advance of the boot camp, think in detail about an outline for your discussion. Discuss it with your co-leader, if applicable,
- 4. At the boot camp, schedule some time to sit down in a quiet place with one of the senior instructors and/or the moderator for your panel to review your outline in advance of your discussion. You will likely get some new ideas about your topic, as well as how to present it to a group.



These presentations are not formal conference papers, and your audience is not large and (potentially) hostile. Instead, you have a chance to present your in-progress, or planned research to a small and friendly audience of peers and senior colleagues, many of whom will give you useful feedback, guidance and insights that you could not have gotten elsewhere. As you prepare, think of your presentation as an opportunity to learn about your own topic from the group, rather than a mandate to show off a polished, final product.

The goal is not to present a complete picture of your thesis or other research, but rather to select one or two aspects of your research which will be of interest to your peers, prepare and present them, and then leave plenty of time and space for discussion among the group.

Policy presentation exercise:

During the Nuclear Boot Camp each student will work with teammates to prepare and present a policy briefing (of the sort that one might give to a foreign minister, president, prime minister, high-level IAEA official, etc.) which provides a historical perspective on current or near-term future nuclear weapons issues.

1. The history of the nuclear age has been replete with dire predictions of impending proliferation cascades. "If country A goes nuclear, then its regional rival country B will as well, soon to be followed by C, D and so on!" The facts have yet to bear out these conclusions. Is this a result of luck? Consistently skillful politico-military maneuvering on the part of proliferation opponents? Some as-yet undefined inherent characteristic of 'proliferation theory'? Prepare a historical presentation on this topic for a concerned national leader or cabinet member with particular reference to the evolving Iranian nuclear issue.

Yellow Team: Jooeun, Mahsa, Sara M., Sayuri

2. The nuclear rivalry between India and Pakistan is sometimes characterized as a 'miniature' version of the US-Soviet superpower rivalry during the Cold War. There are similarities in that both countries' domestic and foreign policy goals are at odds, and in that both states are nuclear armed. On the other hand, such factors as geography, technological development and actors from outside the region play important roles. Prepare a presentation analyzing the 'miniature Cold War' perspective. It is a 'good' use of history? Is the analogy useful? Is it a dangerous or deceptive analytical shortcut which conceals more than it reveals?

Green Team: Chris, Dauren, Kanica, Rabs

3. Ever since the Nuclear Non-Proliferation Treaty (NPT) was signed in 1968, it has been surrounded by debate and controversy, including prominently between the 5 'legal' Nuclear Weapons States (NWS) on one side, and the Non-Nuclear Weapons States (NNWS) on the other. The NWS, particularly the US and Russia, have made drastic cuts to their nuclear arsenals since the end of the Cold War. Do these cuts fulfill (or begin to fulfill) the NWS' Article 6 commitments? How, if at all, does the Global Zero movement fit into the picture? Can the NNWS take steps to aid the NWS arms reduction/disarmament efforts? If so, how? Prepare a presentation for a senior official with responsibility for nuclear policy within a



NNWS which addresses these or related questions in the context of the history of the NPT, as well as—if appropriate and relevant based upon your group's agreed approach—the history of the global anti-nuclear/peace movement.

Orange Team: Cigdem, Fumi, Renata, Stephanie

4. Following his famous 'New Look' exercise, US President Dwight Eisenhower made it the policy of the United States to rely primarily on nuclear, rather than conventional weapons, to defend the US and its allies. His decision was driven chiefly by economic considerations. Nuclear weapons were thought to be able to deter or repel aggression more cheaply than conventional weapons because they provided 'more bang for the buck.' To what extent might discussions about whether or not to 'go nuclear' in other nations have been informed by these same considerations? As modern conventional weapons grow more sophisticated, and costly, could more countries come to view nuclear weapons as a relatively cheap means of defense? Brief the national leader of country X (of your choosing) and his or her cabinet on what the lessons of Eisenhower's New Look and the continued proliferation of advanced conventional munitions means for the future of your country's defense policy.

Purple Team: Artem, Matt, Sarah R., Suzanne

Original research is not one of the objectives of this exercise—your own background knowledge and some background reading from the web should provide you with all of the information you need. The goal is to practice communicating historical knowledge and history-informed perspectives to a policy-maker audience and to bring the connection between history and policy into sharper focus. Remember also that this presentation is intended for one or more top-level policy-makers. Poorly planned or ill-coordinated presentations will not be well-received.

Conclusion:

A core goal of the boot camp is to build a global network of researchers with a shared interest in the history of nuclear weapons—each of you is a key player in this effort. If you come intellectually prepared, armed with a good sense of humor and a friendly, collegial demeanor, you will make a positive contribution. You will get out of the Nuclear Boot Camp what you put into it.



Nuclear Boot Camp Schedule:

This syllabus will be updated periodically before and during the boot camp. Making small mid-course adjustments will help to ensure that everything proceeds smoothly. Refer to the copy of the syllabus posted at the front of the main classroom for the most current schedule of the coming days' events.

Tuesday 13 May 2014:

- Arrival in Rome
- 10:00; 15:30; 18:30: Shuttles from Fiumicino Airport to our former NATO base in Allumiere
- 2030: Tour of the facility, informal welcome dinner.

Wednesday 14 May 2014:

- 0930: Breakfast
- 1000: Current Nuclear Policy Issues, with Robert Litwak and Joe Pilat
- 1130:Break
- 1145: Nuclear Physics in the 1930s: from the Early Atomic Models to the Discovery of Fission, with Gianni Battimelli

Topics:

- o The incremental discovery of the nucleus, its components and their properties
- o The international research network in nuclear physics
- Fundamental research and practical applications, from medical use to the prospect of weapon development
- 1315: Lunch
- 1430: Hiroshima and the Origins of Nuclearphilia: The Manhattan Project and the Decision to Use the Bomb, with Marty Sherwin.

- o International scientific and political origins of the Manhattan Project
- Different roles of Manhattan Project scientists, the military, President Roosevelt and Secretary of War Henry Stimson
- \circ $\,$ How the atomic bomb was seen and valued during and after the war.



- Roosevelt's intentions before his death and the significance of Truman's succession to the presidency
- Secretary of State James Byrnes' and Secretary of War Henry Stimson's different perspectives on the USSR and the bomb
- Historical and contemporary significance of the debates over whether the bomb should have been dropped and what impact it may have had on the Japanese decision to surrender.
- 1600: Break
- 1615: Atomic bombing in Japan in 1945 and postwar Japan-US relations in military and security issues, with Fumi Inoue. Moderated by Marty Sherwin.
- 1645: Break
- 1700: Film and informal discussion led by David Holloway and Lodovica Clavarino: *Copenhagen.*
- 2000: Dinner

Thursday 15 May 2014:

- 0900: Breakfast
- 0930: Conducting International (Nuclear) History Research, with David Holloway, Leopoldo Nuti, and Christian Ostermann.

- o The nature of international history research
- Developments in multi-archival and multilingual historical research over the past 20 years
- The need to conceptualize issues such as nuclear history as international history (no single country developed a *national* program all by itself: espionage, assistance, etc.)
- Specific research challenges encountered in different countries, etc.
- 1030: The Soviet Union and the Atomic Bomb, with David Holloway
 <u>Topics:</u>
 - o Soviet atomic energy activities prior to Hiroshima
 - o Soviet atomic espionage and the Soviet 'Manhattan Project'



- \circ Soviet reaction to Hiroshima and Stalin's view of nuclear weapons
- 1145: Break
- 1200: Atomic Intelligence in the aftermath of World War II, with Matt Fay and The Atomic American: Citizenship in a Nuclear State, 1945-1962, with Sarah Robey. Moderated by Marty Sherwin
- 1300: Lunch
- 1430: The US and Soviet hydrogen bomb decisions and experiences: a discussion with David Holloway and Marty Sherwin.

- o Background to US interest in the hydrogen bomb
- o The Soviet A-bomb test and Sakharov's work on the Soviet super
- o The US reaction to the Soviet A-bomb: sufficiency vs. superiority
- o The debate and decisions of the General Advisory Commission (GAC) to the AEC
- o Truman's decision and the end of early arms control
- o The Soviet and US H-bomb tests
- o The British H-Bomb project
- The impact of the early H-Bomb tests on the political leaders of the three nuclear powers
- 1600: Break
- 1615: Orientation meeting on student group policy impact project, with Joe Pilat <u>Topics:</u>
 - o Confirm/sharpen agreed presentation topic
 - o Discuss rough presentation outline
 - o Decide on next steps
- 17:45: Film and informal discussion led by Marty Sherwin: *The World At War, Part 24: "The Bomb: February September 1945*
- 2000: Dinner



Friday 16 May 2014:

- 0900: Breakfast
- 0930: The Cuban Missile/Caribbean/October Crisis, with Marty Sherwin, Leopoldo Nuti, and David Holloway

Topics:

- o US-Soviet Relations and the state of the arms race as of 1961
- o Khrushchev's decision to deploy missiles to Cuba
- The Kennedy Administration's response.
- o The Cuban Missile Crisis as pivotal point in the Cold War
- 1100: Break
- 1115: Soviet Military Strategy in the 1950s and 1960s, with David Holloway
- 1245: Lunch
- 1415: The Evolution of US Nuclear Strategy, 1962-1991, with Frank Gavin
- 1545: Break
- 1600: Nuclearphilia Meets Nuclearphobia: American Culture and Nuclear Neurosis, with Marty Sherwin. Film and group discussion led by Marty Sherwin : *Dr. Strangelove, or How I learned to Stop Worrying and Love the Bomb*
- 2000: Dinner

Saturday 17 May 2014:

- 0900: Breakfast
- 0930: An analysis of the British and French Nuclear programmes, with Matthew Jones and Benoit Pelopidas



- 1100: The rationale behind the Carter and Reagan Administrations' Decisions to supply the United Kingdom with Trident Missiles, with Suzanne Doyle. Moderated by Matthew Jones
- 1130: Break
- 1145: Brief History of Nuclear Arms Control: from the origins of Arms Control to the Non-Proliferation Treaty and SALT, with Marilena Gala

Topics:

- The origins of the arms control regime in the context of the international system of the time
- o Political origins of its creation and development.
- o Role of the Cuban Missile Crisis in catalyzing arms control
- 1315: Lunch
- 1430: The international nuclear system to the test of renewed international (and national) political, security and technological challenges in the 1970s and the 1980s with, Marilena Gala, Frank Gavin and Ori Rabinowitz

Topics:

- o The post SALT strategic nuclear debate
- Nuclear tensions within NATO
- o An NPT regime difficult to consolidate
- 1600: Break
- 1615: Film TBD
- 2000: Dinner

Sunday 18 May 2014:

- 0900: Breakfast
- 0930: The 1980s between Transnational organizations and arms control negotiations with Matthew Evangelista, David Holloway, and Marty Sherwin

- o Evolution of the "Second Cold War" and the Euromissiles Crisis
- o Operation RYaN and Able Archer 83
- The history of the 'near miss' at Reykjavik



- o Transnational Anti- Nuclear Organizations
- 1100: Break

• 1115: Impact of Nuclear Abolitionism on International Politics in the last Decade of the CW, with Stephanie Freeman. Moderated by Matt Evangelista.

- 1145: The role of prestige in Indian and Iranian Nuclear Program with Kanica Rakhra *and* Nuclear decision making in Iran with Mahsa Rohui. Moderated by Marilena Gala.
- 1245: Lunch
- 1415: The History of the South African Nuclear Program, with Anna-Mart van Wyk
- 1545: Break
- 1600: US Non-Proliferation policy towards Pakistan from Ford to Clinton, with Rabia Akhtar. Moderated by Ori Rabinowitz and The Future of Non-Proliferation Regime and Turkey, with Cigdem Pekar. Moderated by Christian Ostermann
- 1700: The Research Project on Swedish Disarmament Policy: An Introduction and Overview, with Thomas Jonter
- 1730: Film TBD
- 2000: Dinner

Monday 19 May 2014:

- 0900: Breakfast
- 0930: Design, Operation and Decommissioning of Nuclear Power Plants: software tools for assessing the risks of Nuclear Proliferation, with Artem Dogov and Nuclear Non-Proliferation in the Republic of Kazakhstan, with Dauren Aben. Moderated by David Holloway.
- 1030: Break
- 1045: Second Group meeting
- 1245: Lunch
- 1330: Nuclear Free Afternoon
- 2030: Dinner

Tuesday 20 May 2014:



- 0930: Breakfast
- 1000: Nuclear reversal in historical and theoretical perspectives. The cases of Sweden and Italy, with Thomas Jonter, Ariel Levite, and Leopoldo Nuti.

Topics:

- Why have some countries decided not to proliferate?
- What factors are most likely to have an impact on their nuclear reversal? What can we draw from their experiences?
- o Is it possible on this basis to predict proliferation?
- o Italy / Sweden
- 1130: Break
- 1145: Third Group meeting
- 1300: Lunch
- 1430: Nuclear Scientific Communities in Brazil and Argentina (1950-1991), with Christopher Dunlap and Anti-Nuclear mobilization in Brazil (1972-present) with Renata Dalaqua. Moderated By Renato Moro or TBD
- 1530: Break
- 1545: A History of Peace, Peace Movements and Anti-Nuclear Efforts with Renato Moro <u>Topics:</u>
 - Historical significance of these social forces and their importance as socially relevant phenomena
 - Specific instances/events in which anti-nuclear/peace movements have had policy impact
- 1715: Keynote speech/ or Film TBD
- 2000: Dinner

Wednesday 21 May 2014:

- 0900: Breakfast
- 0930: History of the Origins and Present State of DPRK Nuclear Program with James Person.
- 1100: Break



- 1115: Junior Allies under Nuclear Umbrellas: the case of France, UK, China, North and South Korea, Taiwan, and Japan with Kim Jooeun. Moderated by Leopoldo Nuti.
- 1145: US extended Nuclear deterrence in Japan from the end of the Cold War, with Sayuri Romei. Moderated by James Person.
- 1215: Design and Effectiveness of Alliances and Coalitions in Wartime, with Sara Moller. Moderated by TBD
- 1245: Lunch
- 1415: Wrap up Session: Summary of topic covered, ideas surfaced, lessons learned, areas for future research and collaboration, and so on.
- 1600: Fourth Group meeting
- 2000: Dinner

Thursday 22 May 2014:

- 0900: Breakfast
- 0930: Yellow Team Presentation/Discussion
- 1030: Break
- 1045: Green Team Presentation/Discussion
- 1145: Break
- 1200: Orange Team Presentation/Discussion
- 1300: Lunch
- 1430: Purple Team Presentation/Discussion
- 1530: Break
- 1545: Student Evaluations
- 1615: Fun group activities followed by moving farewell dinner

Friday 23 May 2014:

- Breakfast
- Shuttles to Rome/Fiumicino Airport

