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Introduction by Thomas Maddux, California State University Northridge, Emeritus

Efforts to stop the spread of nuclear weapons have been in the news lately, given the U.S. negotiations with North Korea over its nuclear weapons facilities and missile sites and with Iran after President Donald Trump withdrew from the agreement that President Barack Obama and the leaders of other nations had finalized with Iran to halt its nuclear program. Recent studies on nuclear weapons with respect to nonproliferation policies as well as efforts to control the nuclear weapons arms illustrate the challenges in attempts to halt the spread of nuclear capabilities as well as in containing the development of new missiles by the major powers.¹ This special issue of *The International History Review*, which focuses on the 1970s, includes with twelve articles, as well as an introduction by editors Leopoldo Nuti and David Holloway, a penetrating historiographical article by Nuti, and a succinct conclusion by Holloway.²

The reviewers are impressed with the focus of the essays that explore issues from the multilateral Nuclear Non-Proliferation Treaty (NPT) which became active in 1970 through the Soviet-U.S. agreements, most notably the Soviet-American Anti-Ballistic Missile Treaty (ABM) signed in 1972 and the Soviet-American arms limitations talks (SALT) that extended through the decade. The articles also address major challenges to the emerging global nuclear order, including India's nuclear explosion in 1974, the 1973 oil crisis and escalation of oil prices which made nuclear energy an issue with respect to its potential relationship to the production of weapons grade material, and the emergence of states in the global south that demanded equal treatment with the nuclear powers in the north in terms of nuclear power.

¹ See Leopoldo Nuti, "The Making of the Nuclear Order and the Historiography on the 1970s," *The International History Review* 40:5 (2018) [Hereafter *IHR*], 965-974; Nicholas L. Miller's *Stopping the Bomb: The Sources and Effectiveness of US Nonproliferation Policy* (Ithaca: Cornell University Press, 2018); Matthew Ambrose, *The Control Agenda: A History of the Strategic Arms Limitation Talks* (Ithaca: Cornell University Press, 2018); and the "Global Nuclear Order" forum in *Diplomacy & Statecraft* 29:1 (March 2018): 3-142.

² The issue contents are as follows: David Holloway and Leopoldo Nuti, "Introduction," *IHR*: 963-964; Leopoldo Nuti, "The Making of the Nuclear Order and the Historiography of the 1970s," 965-974; Isabelle Anstey, "Negotiating Nuclear Control: The Zangger Committee and the Nuclear Suppliers' Group," 975-995; Carlo Patti and Rodrigo Mallea, "American Seeds of ABACC? Findley's Proposal to Create a Mutual Nuclear Inspections System Between Brazil and Argentina," 996-1013; Or Rabinowitz, "Signed, Sealed but Never Delivered: Why Israel did not Receive Nixon's Promised Nuclear Power Plants," 1014-1033; Malfrid Braut-Hegghammer, "Pakistan, Uranium and the International Atomic Energy Agency, 1970-1980," 1034-1048; Eliza Gheorghe, "Peace for Atoms. US Non-Proliferation Policy and the Romanian Role in the Sino-American Rapprochement, 1969-1971," 1049-1072; Yogesh Joshi, "Between Principles and Pragmatism: India and the Nuclear Non-Proliferation Regime in the Post-PNE Era, 1974-1980," 1073-1093; Dennis Romberg, "How to Further Develop the Nonproliferation Regime? West German Nuclear Exports to Brazil and Iran in Context of US Criticism," 1094-1114; Rabia Akhtar, "Making of the Seventh NWS: Historiography of the Beginning of the Nuclear Disorder in South Asia," 115-1133; Farzan Sabet, "The April 1977 Persepolis Conference on the Transfer of Nuclear Technology: A Third World Revolt Against US Non-Proliferation Policy?," 1134-1151; Anna-Mart van Wyk, "South African Nuclear Development in the 1970s: A Non-Proliferation Conundrum?," 1152-1173; Suzanne Doyle, "Preserving the Global Nuclear Order: The Trident Agreements and the Arms Control Debate, 1977-1982," 1174-1190; Niccolo Petrelli and Giordana Pulcini, "Nuclear Superiority in the Age of Parity: US Planning, Intelligence Analysis, Weapons Innovation and the Search for a Qualitative Edge 1969-1976," 1191-1209; and David Holloway, "Conclusion: Reflections on the Nuclear Order," 1210-1218.

Fabian Lüscher welcomes the intention of Nuti and Holloway to focus on the interaction and impact of international history and the evolution of the nuclear order with state actors as the key players. Lüscher also praises the inclusion of global south states such as Pakistan, India, South Africa, Brazil and Argentina. “The special issue,” Lüscher concludes, “is an excellent example of how diplomatic history can serve as a means of gaining a deeper understanding of nuclear energy’s Janus-like history and vice versa.” Nicholas Miller notes a number of strengths in the articles as “they greatly improve our understanding of the global nuclear order during this crucial decade, when the nonproliferation regime was in flux and increasingly under threat from nuclear weapons aspirants and lax nuclear suppliers” and that the articles “broaden the narrative beyond the role of the United States.” As Miller points out, the articles also challenge a misconception that “nuclear politics did not neatly follow the ‘haves’ vs. ‘have-nots’ dichotomy in the 1970s” with reference to four separate examples ranging from disagreements among Western powers over U.S. backed restrictions to the U.S. opposing Pakistan’s nuclear program versus support for Romania’s plans and only limited criticism of India’s nuclear test. Maria Rentetzi suggests that the articles have a number of valuable insights, especially the merger of nuclear and international history despite the lack of archival materials for some of the most important nuclear participants such as Pakistan. It is “an inspiring collection,” Rentetzi concludes, “that strengthens diverse voices, poses novel challenging questions, and brings forward different national perspectives on the history of the nuclear order.” For Elisabeth Roehrlich “one of the extraordinary strengths of this special issue is that it offers new and differentiated insights into the reactions to American nonproliferation policies in capitals around the world. The articles are a stark reminder that the history of the nuclear age is as much a history of North-South dynamics as it is a history of the East-West conflict.”

The reviewers offer some criticism as well as suggestions for further contributions. Several of the reviewers would have welcomed an essay on the Soviet Union’s role in the nuclear order although they recognize the absence of available archival sources. Lüscher criticizes the lack of discussion on the “back end of the nuclear fuel cycle,” radioactive waste, which “would have added another important facet to the already complex picture of the global nuclear order.” For Miller a “common weakness in the articles” is that “many could benefit from more discussion of the broader geopolitics and strategies of the states under study.” With reference to articles that dealt with Argentina, Brazil, Iran, India, Pakistan, and the U.S., Miller raises questions about the specific intentions of state leaders on nuclear policy. Rentetzi regrets the lack of discussion on the role of technological change in the nuclear order. “One could argue that the NPT is itself a form of technology. It is a machinery of power, of a highly developed international law, of nuclear policies and regulatory institutions, of an extended network of experts, diplomats, scientists, officials, and immense material resources where the state is just one among many other actors.” Rentetzi also is critical of the lack of attention to the nuclear international organizations and “their roles in defining, maintaining, or disturbing the nuclear order.” Despite the many references in the articles and the editors’ discussions of the global nuclear order, Roehrlich misses a “deeper conceptual debate over what the ‘global nuclear order’ actually means and what it entails (and what not)” beyond the focus on nonproliferation.

The reviewers end with positive conclusions that cohere with Roehrlich’s comments about the special issue as an encouraging and fruitful exchange of ideas by scholars of global history, historians of transnational relations, and diplomatic historians.

Participants:

Fabian Lüscher is a Ph.D. student and Research Assistant at the History Department of the University of Bern, Switzerland. He is working on his PhD-Project “Nuclear Internationalism in the Cold War. Actors,

Networks and Knowledge Transfer 1955-1991.” His most recent publication on the subject has appeared in 2018: Fabian Lüscher, “The Nuclear Spirit of Geneva. Boundary-Crossing Relationships of Soviet Atomic Scientists after 1955,” *Jahrbücher für Geschichte Osteuropas* 66:1 (2018): 20-44. DOI: <https://doi.org/10.25162/jgo-2018-0002>.

Nicholas L. Miller is an Assistant Professor of Government at Dartmouth College. His book, *Stopping the Bomb: The Sources and Effectiveness of US Nonproliferation Policy*, was published by Cornell University Press in 2018. His research has also appeared or is forthcoming in the *American Political Science Review*, *International Organization*, *International Security*, and *International Studies Quarterly*, among other outlets.

Maria Rentetzi, Professor of History and Sociology of Science and Technology at the National Technical University of Athens, Greece, has published widely on the history of nuclear sciences with an emphasis on radioactivity, radiation protection, and nuclear diplomacy. She was recently awarded an ERC Consolidator Grant of 2 million euro to study the history of radiation protection and the role the International Atomic Energy Agency has played as a diplomatic and political international institution in shaping radiation policies and nuclear diplomacies. She currently runs InsSciDe’s Security and Science Diplomacy work package, an EU Horizon 2020 funded project on science diplomacy. Rentetzi is the author of *Trafficking Materials and Gendered Experimental Practices* (Columbia University Press, 2007) <http://www.gutenberg-e.org/rentetzi/> and co-author of *Boxes: A Fieldguide* (Mattering Press, 2019). In addition to directing the Laboratory of History and Philosophy of Science and Technology at the NTUA, Rentetzi is member of the board of the ERC Association, president of the Commission Women and Gender in STM and member of the board of the (IUHPS/DHST). <http://mariarentetzi.weebly.com/>.

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Review by Fabian Lüscher, University of Bern

Early in 2018, Maria Rentetzi called for a diplomatic turn in the history of science when she announced a research project that aimed at a broad examination of the history of nuclear diplomacy.¹ While nuclear weapons have always been a key issue for historians of the Cold War, many aspects of the history of nuclear science and technology have not yet been situated within the history of Cold War international relations. The special issue under review goes beyond even that. In their co-authored introduction, Leopoldo Nuti and David Holloway declare their purpose: “We worked under the assumption that we should use international history to understand the evolution of the nuclear order but that we should also use nuclear history to understand how it shaped and affected the evolution of the international system.”² Without claiming to provide a complete picture of the global nuclear order of the 1970s, the editors and authors of this special issue have furnished proof of the analytical value created by thinking about nuclear and diplomatic history together.

Following William Walker,³ Holloway roughly defines the central analytical term of the special issue under review—nuclear order—as a “set of understandings and arrangements that states come to in order to manage the dangers and the opportunities offered by atomic energy.”⁴ This definition makes clear that the issue’s focal point is on state actors. Still, many of the contributions go far beyond merely analyzing negotiations between top-level diplomats. They take on the challenge of analyzing the complex entanglements between the history of nuclear science and technology and the history of Cold War international relations. Focusing on the 1970s, a decade that remains somewhat underexamined in this regard, this special issue of the *International History Review* provides its readers with thirteen pieces of original research, all of which are centered around a set of events and processes that made the timespan under scrutiny a particularly interesting decade for historians of nuclear diplomacy.

The multilateral Nuclear Non-Proliferation Treaty (NPT), which had been open for signature since 1968, came into force in 1970, and the Soviet-American Anti-Ballistic Missile Treaty (ABM) was signed in 1972 as the first result of the bilateral Soviet-American arms limitations talks (SALT). Through the end of the decade, when the Soviet invasion in Afghanistan (1979) and the NATO dual-track decision (1980) marked the end of détente, superpower diplomacy, nonproliferation considerations and, not least, the development and circulation of nuclear knowledge and technology altered the nuclear order remarkably. The 1973 oil crisis on the one hand and Smiling Buddha, India’s so-called peaceful nuclear explosion (PNE) in 1974 on the other,

¹ Maria Rentetzi, “A Diplomatic Turn in History of Science,” *History of Science Society Newsletter* 47:1 (January 2018): 12-14. <https://hssonline.org/resources/publications/newsletter/january-2018/a-diplomatic-turn-in-history-of-science/>.

² David Holloway and Leopoldo Nuti, “Introduction,” *The International History Review* 40:5 (2018): 963-964, 963.

³ William Walker, *A Perpetual Menace. Nuclear Weapons and International Order* (London: Routledge 2012).

⁴ David Holloway, “Conclusion: Reflections on the Nuclear Order,” *The International History Review* 40:5 (2018), 1210.

are only the most prominent of the eruptions that shook the very foundations of a nuclear order that had grown out of intense negotiations and rapid technological developments in the preceding decades.

A price shock on the petroleum market, caused by the late-1973 embargo of the Organization of Arab Petroleum Exporting Countries (OAPEC), suddenly made the widespread application of nuclear energy for nonmilitary uses much more urgent. With the rapidly increasing demand for nuclear power, the prospects of earning money through according exports rose, most notably in the United States, the world's leading supplier of nuclear technology. Even though the extensive spread of nuclear fuel and the according technology was understood to be a proliferation risk, U.S. policymakers were of the opinion that American nuclear exports with the appropriate safeguards were much better than unrestrained exports provided by anyone else. From this perspective, nuclear exports were even part of a 'nonproliferation regime light.'

On the other hand, the commercial application of promising new nuclear power technologies, such as fast breeder reactors, necessitated the spread of reprocessing facilities to become economically viable. Third World states such as prerevolutionary Iran referred to Article IV of the NPT to claim their right to master the full fuel cycle. In the case of petroleum producers, the urge to use nuclear power was not least rooted in the idea that petroleum should be used for export or direct industrial use rather than being wasted in power stations where nuclear fuel could be used. India, a non-signatory of the NPT, tested a nuclear bomb in 1974, claiming the right to conduct research on PNEs. In the wake of Smiling Buddha, the Ford and Carter administrations tried to expand safeguards and enforce greater control over enrichment and reprocessing from the perspective that partner states should not be able to create according facilities in their own right and would thus be unable to develop military nuclear programs.

One strength of this multifaceted special issue is that the many different perspectives—some focused on technical details, others aiming more at top-level diplomacy or scientific advisory work—are held together by a careful editorial effort. The contributors tackle a broad range of research problems by using an impressive number of primary sources and demonstrating deep knowledge of state-of-the-art historiography in their particular fields of research. Some authors examine the complex history of international institutions rooted or founded in the 1970s and aimed at facilitating nuclear exports without violating the nonproliferation regime.

Others discuss aspects of the comparatively understudied nuclear histories of states such as Pakistan, India, South Africa, and Iran. It is in these contributions that the global south becomes tangible as a group of regions with actual—albeit limited—agency in the creation and shaping of the nuclear order in the 1970s. In some of the case studies, a lack of access to much of the relevant archival material in the states under scrutiny presented the authors with insurmountable problems. Given that limitation, the evidence adduced in each of these nuclear histories through extensive and careful research conducted in many different archives in the United States and Europe and in the records sections of various international organizations is nothing short of remarkable. The special issue thus clearly keeps its editors' promise to provide a more pluricentric history of the nuclear order. The arguments and analyses brought forward are built upon a solid empirical basis. Even though the overwhelming majority of sources come from U.S. archives, the authors have succeeded in providing insightful analyses of aspects of the 1970s' intertwined nuclear and diplomatic histories that previously were scarcely known.

The perspectives in this special issue are not merely diverse in the sense of including nuclear histories of the global south; some articles stand out due to their level of detail regarding diplomatic processes and negotiations, and others demonstrate the authors' and editors' sensitivity regarding the implications inherent

in certain nuclear technologies. While detailed accounts of nuclear technology will without doubt be of great value to specialists, it would have been helpful to introduce some of the technical terminology more thoroughly to help readers without deep technical knowledge of nuclear weapons systems or the devices used at the various stages of the nuclear fuel cycle.

As Holloway underlines in his concluding remarks, the special issue does not claim to offer comprehensive coverage of the history of the nuclear order in the 1970s. It is best described as a colorful bouquet, emphasizing a number of highly relevant and original case studies, all of which are situated at the blurred boundary between diplomatic history and the history of nuclear science and technology. Of course, no single journal issue could ever provide enough space to cover all aspects of the creation of a global nuclear order in the 1970s. Still, two prominent absences need to be mentioned.

The Soviet Union, unquestionably a key player in nuclear international relations, appears to have been of minor concern in this issue. Even though the Soviet nuclear power program expanded quickly in the 1970s—both quantitatively and qualitatively—and even though the Soviet Union appeared to have reached strategic parity in the nuclear arms race at the end of the 1960s, no contribution to the issue is dedicated to Soviet nuclear diplomacy.⁵ This is all the more surprising given the fact that Holloway himself is one of the top experts on Soviet nuclear history.⁶ It is to be welcomed that the development of the nuclear order is thought of as an at least partially pluricentric process to which the states of the global south contributed by making use of their individual scopes of action within the context of Cold War international relations. While any perspective going beyond the superpower dichotomy is of undisputed value to the analysis of the nuclear age, the almost total absence of the Soviet Union's nuclear history would benefit from a thorough explanation.

Another blind spot involves the back end of the nuclear fuel cycle. While some articles treat uranium mining and others offer accounts of enrichment or reprocessing technologies, the management of radioactive waste—which even now is among the most pressing problems connected with nuclear technology—is missing. Given that the 1970s witnessed the ascent of environmentalist movements in many states with considerable nuclear power programs, a historiographical glance at the waste problem would have added another important facet to the already complex picture of the global nuclear order. The long-lasting problem of nuclear waste disposal was not only of concern to each state's domestic politics but had already entered the arena of nuclear diplomacy by the late 1950s. This still-understudied history of 'radwaste diplomacy' could, in the future, add to the understanding of nuclear energy's entangled history in the setting of Cold War international relations.

Irrespective of these minor critiques, Holloway and Nuti have skillfully brought together a wide range of different ideas, approaches, and perspectives in a special issue that is highly recommended to specialists in the field of nuclear history and to scholars interested in the history of international relations. Furthermore, the

⁵ On the Soviet nuclear energy program in the 1970s and its international entanglements, see, for example, Stefan Guth, "Oasis of the Future. The Nuclear City of Shevchenko/Aqtau, 1959–2019," *Jahrbücher für Geschichte Osteuropas* 66:1 (2018): 93-123. DOI: <https://doi.org/10.25162/jgo-2018-0005>.

⁶ See for example: David Holloway, *Stalin and the Bomb: The Soviet Union and Atomic Energy, 1939-1956* (New Haven: Yale University Press, 1994); David Holloway, "The Soviet Union and the Creation of the International Atomic Energy Agency," *Cold War History* 16:2 (2016): 177-193. DOI: <https://doi.org/10.1080/14682745.2015.1124265>.

conclusions drawn in each article often remain relevant and deserve examination in the light of contemporary discussions regarding nuclear energy development, nonproliferation, and arms control. The special issue is an excellent example of how diplomatic history can serve as a means of gaining a deeper understanding of nuclear energy's Janus-like history and vice versa. Such an approach promises further insights into an internationally entangled history of high-flying dreams and apocalyptical nightmares that has cast its long shadows not only over the Cold War decades but far beyond.

Review by Nicholas L. Miller, Dartmouth College

The 1970s were a decade of transition and upheaval in the global nuclear order. Although the Nuclear Nonproliferation Treaty (NPT) entered into force in 1970, the vast majority of countries of proliferation concern either delayed ratification of the treaty—for example, Australia, Egypt, Italy, Japan, South Korea, Switzerland, and West Germany—or stayed out of it entirely—such as Argentina, Brazil, India, Israel, Pakistan, and South Africa. Even two countries recognized as nuclear powers by the treaty, Communist China and France, elected not to join.

At the same time, there was growing interest in nuclear energy technology globally and few meaningful restrictions on what type of nuclear technology could be bought or sold. While the United States and Soviet Union were relatively careful about what they exported, U.S. allies, including France, West Germany, and Italy, demonstrated a willingness to sell even the most highly sensitive of nuclear technology: namely, the enrichment and reprocessing facilities that can produce either nuclear fuel for reactors or fissile material for nuclear weapons.

These dangerous proliferation trends were brought to the fore by India's test of a nuclear device in 1974, which dramatically exposed the limitations of the nonproliferation regime and ostensibly 'peaceful' nuclear trade. Indeed, in the years immediately following the Indian test, the proliferation landscape looked increasingly bleak. As Director of the U.S. Arms Control and Disarmament Agency Fred Ikle warned President Gerald Ford in February 1975:

Our current intelligence assessment is that South Korea is attempting to develop nuclear weapons and can have an initial capability in ten years. Taiwan will probably have such a capability in five years. Argentina could have nuclear explosives in ten years. The Argentine program would in turn prompt the Brazilians to follow close behind. The Union of South Africa is moving towards a capability to build nuclear weapons. Pakistan has been making efforts to acquire the means to manufacture plutonium. And Iran—although a party to the Non-Proliferation Treaty—is coming into possession of the nuclear materials and know-how as a result of its large purchase of reactors. Iraq would probably follow Iran's example. There are indications Libya is strongly interested in acquiring nuclear weapons and indigenous technical know-how or becoming, through financial assistance, a partner with such countries as Pakistan. These developments, in turn, could impel some of the industrialized *potential* nuclear states to move into a weapons program.¹

Motivated by such alarming activities, the United States and like-minded countries worked to fill the gaps in the nonproliferation regime. This, in turn, laid the groundwork for the regime as we understand it today: a system where the NPT is only one of several interlocking barriers against the spread of nuclear weapons.

The twelve original articles in this special issue of the *International History Review* greatly improve our understanding of the global nuclear order during this crucial decade, when the nonproliferation regime was in flux and increasingly under threat from nuclear weapons aspirants and lax nuclear suppliers.

¹ Memorandum from the Director of the Arms Control and Disarmament Agency (Iklé) to President Ford, 18 February 1975, Nixon-Ford Administrations, *Foreign Relations of the United States, 1969-1976*, vol. E-14, part 2, doc. 120.

Each of the articles offers excellent new historical evidence, drawing our attention to understudied forces or events. Carlo Patti and Rodrigo Mallea, for example, uncover the role of a U.S. congressman in inspiring the bilateral safeguards arrangement between Argentina and Brazil, which in turned ultimately paved the way for their NPT adherence.² Farzan Sabet highlights the little-known 1977 Persepolis Conference, a concrete manifestation of the Third World's opposition to the increasingly stringent nuclear supply controls the United States was promoting.³ Niccolò Petrelli and Giordana Pulcini demonstrate the extent to which the United States was uncomfortable with the nuclear balance even in a context of mutually assured destruction,⁴ complementing recent work by Brendan Green and Austin Long that comes to similar conclusions.⁵ Suzanne Doyle documents how the Soviet invasion of Afghanistan in 1979 overcame the Carter administration's reluctance to provide Britain with a replacement for the Polaris missile,⁶ thus contributing to a broader trend of setbacks in arms control, including the non-ratification of SALT II.

All of the articles in the special issue rely on documentary evidence and the authors have uncovered many fascinating gems in the archives. Isabelle Antsey, for instance, finds that West German officials suspected that the United States and Soviet Union might be colluding against them to restrict nuclear exports,⁷ a conclusion that is consistent with recent scholarship that demonstrates this was in fact a recurring nonproliferation phenomenon.⁸ Or Rabinowitz shows that Israeli leaders foresaw the dangers of using centrifuges for covert enrichment programs,⁹ which their Iraqi, Libyan, and Iranian adversaries would subsequently pursue. Eliza Gheorghie documents that Romanian leader Nicolae Ceaușescu admitted to U.S. officials his potential interest in nuclear weapons and (surprisingly) that this did not prevent nuclear cooperation between the two

² Carlo Patti and Rodrigo Mallea, "American Seeds of ABACC? Findley's Proposal to Create a Mutual Nuclear Inspections System between Brazil and Argentina," *International History Review* 40:5 (2018) [hereafter *IHR*]: 996-1013.

³ Farzan Sabet, "The April 1977 Persepolis Conference on the Transfer of Nuclear Technology: A Third World Revolt against U.S. Non-Proliferation Policy?" *IHR*: 1134-1151.

⁴ Niccolò Petrelli and Giordana Pulcini, "Nuclear Superiority in the Age of Parity: US Planning, Intelligence Analysis, Weapons Innovation and the Search for a Qualitative Edge," *IHR*: 1191-1209.

⁵ See Austin Long and Brendan Rittenhouse Green, "Stalking the Secure Second Strike: Intelligence, Counterforce, and Nuclear Strategy," *Journal of Strategic Studies* 35, No. 4 (2012): 447-487; and Brendan Green and Austin Long, "The MAD Who Wasn't There: Soviet Reactions to the Late Cold War Balance," *Security Studies* 26:4 (2017): 606-641.

⁶ Suzanne Doyle, "Preserving the Global Nuclear Order: The Trident Agreements and the Arms Control Debate, 1977-1982," *IHR*: 1174-1190.

⁷ Isabelle Anstey, "Negotiating Nuclear Control: The Zangger Committee and the Nuclear Suppliers' Group in the 1970s," *IHR*, 985.

⁸ See Andrew Coe and Jane Vaynman, "Collusion and the Nuclear Nonproliferation Regime," *Journal of Politics* 77:4 (2015): 983-997.

⁹ Or Rabinowitz, "Signed, Sealed but Never Delivered: Why Israel did not Receive Nixon's Promised Nuclear Power Plants," *IHR*, 1023.

countries, as the Nixon administration greatly valued Romania's role as an intermediary with Communist China.¹⁰ Målfrid Braut-Hegghammer shows how the International Atomic Energy Agency (IAEA) continued to help Pakistan mine uranium, even as its nuclear weapons ambitions were becoming increasingly clear in the late 1970s.¹¹

Another important contribution of many of the articles is to broaden the narrative beyond the role of the United States, as David Holloway notes in his conclusion to the special issue.¹² Readers thus learn how the nuclear landscape in the 1970s looked from the halls of power in Israel, Pakistan, Romania, India, West Germany, Iran, South Africa, the United Kingdom, Argentina, and Brazil. This helps us move beyond scholarly accounts of proliferation and nonproliferation in this time period—including my own—which focus heavily or exclusively on the United States.¹³

The contributions to the special issue also usefully underline the different ways in which India's 1974 nuclear test shaped subsequent nuclear dynamics. Perhaps most importantly, it inspired U.S. and multilateral efforts to strengthen the nonproliferation regime, for example fostering the creation of the Nuclear Suppliers Group and leading the United States to demand stricter conditions in its own nuclear cooperation agreements and to become more willing to punish states seeking nuclear weapons (Anstey, 985-987; Rabinowitz, 1025-1026; Akhtar, 1126-1130). At the same time though, the Indian test harmed nonproliferation efforts in other ways, for example by increasing Pakistan's motivation to acquire nuclear weapons, providing a model for South Africa to follow in its own nuclear program,¹⁴ or inspiring many countries to band together to protect nuclear commerce from U.S.-backed restrictions. How these effects net out is unclear, but the fact that the number of states seeking nuclear weapons has declined since the late 1970s suggests that the stronger nonproliferation policies won out in the long run.

¹⁰ Eliza Gheorghe, "Peace for Atoms. U.S. Non-Proliferation Policy and the Romanian Role in the Sino-American Rapprochement, 1969-1971," *IHR*: 1064.

¹¹ Målfrid Braut-Hegghammer, "Pakistan, Uranium and the International Atomic Energy Agency, 1970-1980," *IHR*: 1034-1048.

¹² David Holloway, "Conclusion: Reflections on the Nuclear Order," *International History Review* 40:5 (2018): 1210-1218, 1210.

¹³ See, for example, Samuel Walker, "Nuclear Power and Nonproliferation," *Diplomatic History* 25:2 (2001): 215-249; J. Michael Martinez, "The Carter Administration and the Evolution of Nuclear Nonproliferation Policy, 1977-1981," *Journal of Policy History* 14:3 (2002): 261-292; Francis Gavin, *Nuclear Statecraft: History and Strategy in America's Atomic Age* (Ithaca: Cornell University Press, 2012), ch. 5-6; William Burr, "A Scheme of 'Control': The United States and the Origins of the Nuclear Suppliers' Group, 1974-1976," *International History Review* 36:2 (2014): 252-276; 2014; James Cameron and Or Rabinowitz, "Eight Lost Years? Nixon, Ford, Kissinger and the Non-Proliferation Regime," *Journal of Strategic Studies* 40:6 (2017): 839-866; and Nicholas L. Miller, *Stopping the Bomb: The Sources and Effectiveness of US Nonproliferation Policy* (Ithaca: Cornell University Press, 2018).

¹⁴ Anna-Mart van Wyk, "South African Nuclear Development in the 1970s: A Non-Proliferation Conundrum?" *IHR*, 1158.

Finally, the articles collectively challenge common portrayals of nonproliferation politics as a battle between the ‘haves’—i.e. those who possess nuclear weapons or advanced nuclear technology—and the ‘have-nots.’ In his introduction, Leopoldo Nuti frames this as a struggle between the Global North and Global South.¹⁵ Yet as Holloway points out (1217), this fails to capture the fact that even states with advanced technology from the North—for example, West Germany, as discussed in Dennis Romberg’s article—resented stricter nonproliferation policies imposed by other Northern countries, i.e. the United States.¹⁶

Indeed, the articles reveal many ways in which nuclear politics did not neatly follow the ‘haves’ vs. ‘have-nots’ dichotomy in the 1970s. Sabet’s article (1146) on the Persepolis Conference and Antsey’s article (980-982, 987) on the Nuclear Suppliers Group show that it was not just West Germany causing a fissure amongst the nuclear ‘haves’—France and in some cases the United Kingdom also opposed U.S.-backed restrictions. Yogesh Joshi tells the fascinating story of how India (initially among the most prominent ‘have-nots’) acquired a nuclear weapons capability and suddenly found itself supporting stricter nonproliferation policies associated with the ‘haves,’ but nonetheless tried to maintain a public persona as a defender of the ‘have-nots.’¹⁷ Gheorghe and Rabia Akhtar’s articles demonstrate how the policies of the ‘haves’ toward the ‘have-nots’ were inconsistent at best in the 1970s, with the United States supporting Romania’s nuclear ambitions and only lightly punishing India for its nuclear test while strongly opposing Pakistan’s nuclear program. In the case of South Africa, Anna-Mart van Wyk (1166) documents a clear case of a ‘have-not’ attempting to challenge the nonproliferation regime, but nonetheless finding few allies amongst the other ‘have-nots’ due to its racial policies.

Both jointly and individually, the articles in this issue thus make important contributions to our understanding of nuclear dynamics in the 1970s. To the extent that there is a common weakness in the articles, it is that many could benefit from more discussion of the broader geopolitics and strategies of the states under study. The studies of Argentina, Brazil, and Iran, for instance, are never quite clear on whether these countries wanted nuclear weapons, the option of building nuclear weapons, or simply advanced civilian technology for reasons of prestige. Similarly, Joshi’s analysis of India’s nuclear policy could be strengthened by clarifying what exactly India’s intentions were with respect to its nuclear weapons program at the time, which could help illuminate the position it took on safeguards and arms control with Pakistan. Braut-Hegghammer’s study of IAEA assistance to Pakistan raises the question of whether this assistance had important strategic effects—i.e. aiding Pakistan’s ultimate acquisition of nuclear weapons. Finally, Petrelli and Pulcini’s article on U.S. nuclear posture in the 1970s argues that the U.S. quest for nuclear superiority was not about achieving “primacy” but rather about bolstering “assured destruction,” but the logic of this is never fully explained, and seems in tension with the additional claim that the United States sought “global

¹⁵ See Leopoldo Nuti, “The Making of the Nuclear Order and the Historiography on the 1970s,” *IHR*: 968-969.

¹⁶ Dennis Romberg, “How to Further Develop the Nonproliferation Regime? West Germany Nuclear Exports to Brazil and Iran in Context of US Criticism,” *IHR*: 1094-1114.

¹⁷ Yogesh Joshi, “Between Principles and Pragmatism: India and the Nuclear Non-Proliferation Regime in the Post-PNE Era, 1974-1980,” *IHR*: 1073-1093.

supremacy” (1192).¹⁸ Greater attention to the strategic environment and geopolitical logic driving elite decision-making would help resolve many of these lingering questions and ambiguities, thus providing a fuller picture of the nuclear dynamics under study.

This limitation notwithstanding, this special issue should be read by all historians and political scientists who are interested in nuclear issues in this crucial time period. Readers will be rewarded with a richer, more comprehensive understanding of the global nuclear order—both its historical development and also many political dynamics that persist today.

¹⁸ Petrelli and Pulcini, “Nuclear Superiority in the Age of Parity,” 1192.

Review by Maria Rentetzi, National Technical University of Athens

On 1 February 2019 the United States announced the suspension of its compliance with the Intermediate-Range Nuclear Forces (INF) treaty, offering Russia a six-month window to comply with the treaty. Secretary of State Michael Pompeo went further to accuse Moscow of violating the treaty by testing, producing, and fielding of a new medium-range ground-launched cruise missile system. Signed by President Ronald Reagan and Soviet leader Mikhail Gorbachev in 1987, the INF treaty prohibited the testing or deploying of all land-based intermediate and short range ballistic and cruise missiles that could hit targets roughly between 300 and 3500 miles, which basically kept nuclear weapons outside of Europe. President Donald Trump's decision to pull out of one of the backbones of Cold War nuclear arms control treatments triggered an immediate response from Russia. A day later, as was expected, President Vladimir Putin announced that in order to achieve parity Russia would pull out of the treaty as well. As Putin promised, nuclear weapons previously banned under the treaty would now become part of Russia's arsenal. A number of European Union (EU) diplomats warned Trump of the risk of initiating a new nuclear arms race while at the same time NATO's allies fully supported Trump's decision. Major newspapers such as *The New York Times* and *The Guardian* complicated the picture even more, pointing out China's role in Trump's decision.¹ Having never been a signatory of the INF treaty, China has been free to develop those missiles that have been otherwise illicit for both the United States and Russia. Given China's objections, the transformation of the INF from a bilateral to a multilateral treaty never came on the table. As a result, pulling out of the treaty allows both superpowers to renew their nuclear stockpiles and keep an eye on that of China.

Yet, what seems to be a shift from a bipolar to a new multipolar system of ambitious nuclear actors should not be perceived as an abrupt and sudden process. In *Aspects of the Global Nuclear Order in the 1970s*, a special issue of the *International History Review*, editors David Holloway and Leopoldo Nuti remind us that today's nuclear challenges and dead ends have obviously deep roots in the past. Over the course of more than 75 years of the existence of nuclear weapons, their large impact in international politics has been extensively analyzed, resulting in a vast historical literature on the nuclear order. In particular, the dramatic end of the Cold War and the collapse of the Soviet Union in the late 1980s attracted most historical attention. Holloway's and Nuti's collection shifts the historical focus to the 1970s, a "crucial decade" that has been somewhat neglected, and argues that despite the rich historiography there is still a missing link.² To understand national efforts to craft a global nuclear regime one has to look closer to the 1970s and explore the transformations of the international system focusing on at least three issues: the attractions of nuclear power to developing countries in the face of the energy crisis of the 1970s; the dual and contradictory nature of nuclear energy and technology that has to be simultaneously promoted and controlled; and the development of a North-South axis alongside the existing East-West axis that shaped international relations in the 1970s.

¹ David Sanger and William Broad, "US Suspends Nuclear Arms Control Treaty with Russia" *The New York Times*, 1 February 2019. <https://www.nytimes.com/2019/02/01/us/politics/trump-inf-nuclear-treaty.html>; Julian Borger, "Donald Trump Confirms US Withdrawal from INF Nuclear Treaty" *The Guardian*, 1 February 2019. <https://www.theguardian.com/world/2019/feb/01/inf-donald-trump-confirms-us-withdrawal-nuclear-treaty>

² Leopoldo Nuti. "The Making of the Nuclear Order and the Historiography on the 1970s," *The International History Review* 40:5 (Winter 2018) [hereafter *IHR*]: 965-974, on 965.

Considering the nuclear question as “one of the most pressing and urgent problems of our times,” Holloway and Nuti focus on the 1970s as the key decade that marked the beginnings of the international nuclear non-proliferation regime and at the same time was a period of intense international changes. A collection of fourteen papers, the result of a collaborative effort within the Wilson Center’s Nuclear Proliferation International History Project, attempt to address nuclear history from a transnational and international perspective, breaking with the norm of approaching the topic on a national basis. Besides the United States, which still reserves the central role in shaping the nuclear order, contributors bring forward the perspectives of strategic European countries such as Britain and West Germany but also those of Brazil, India, Pakistan, and South Africa, to mention but a few. The overall aim is to situate nuclear institutions within their international context and “use nuclear history to understand how it shaped and affected the evolution of the international system”³.

Two major processes by which nuclear weapons shaped the world order set the regulatory framework of the 1970s. First, the Nuclear Non-Proliferation Treaty (NPT), a multilateral international nuclear agreement, entered into force in 1970. Even today the NPT represents the only binding agreement that, on the one hand, controls the spread of nuclear weapons and, on the other, promotes the peaceful uses of nuclear energy, thereby demonstrating the contradictory challenges of handling nuclear technologies. The second major process of the 1970s was the Strategic Arms Limitation Talks (SALT) between the United States and the Soviet Union that began in 1969. The two rounds of bilateral conferences, SALT I and SALT II, resulted in the Anti-Ballistic Missile Treaty (1972-2002) and in an interim agreement between the two countries. The decade ended with two major episodes. The invasion of Afghanistan by the Soviets in 1979 led to a decade-long Cold War conflict between the Soviet Union and the United States over control of the region. Second, NATO’s decision, after European pressure, to take the Dual-Track-Decision limited intermediate nuclear missiles. It is this decision that gradually led to the aforementioned INF treaty.

We might be tempted to assume that despite its multinational perspective, *Aspects of the Global Nuclear Order in the 1970s* is written mostly for international historians who are narrowly concerned with the NPT and the variety of national responses to it. Carlo Patti and Rodrigo Mallea, for example, remind us that Argentina and Brazil, having not signed the NPT, forced the United States to reassess its non-proliferation policies and led to the creation of the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials.⁴ Choosing a regional bilateral agreement over a compliance with an international nuclear treaty, the two South American countries disturbed the established balance of power. Rabia Akhtar explores the nuclear order in South Asia, focusing on how Pakistan rebelled against the NPT based on a security discourse shaped by India’s nuclear testing in 1974.⁵

Yet the inclusion of national differences in dealing with the NPT is just one valuable aspect of this collection. Among the many cases discussed, one thing becomes clear. In order to understand the difficulties of creating a

³ David Holloway and Leopoldo Nuti, “Introduction,” in *IHR*, 963.

⁴ Carlo Patti and Rodrigo Mallea, “American Seeds of ABACC? Findley’s Proposal to Create a Mutual Nuclear Inspections System Between Brazil and Argentina,” *IHR*: 996-1013.

⁵ Rabia Akhtar, “Making of the Seventh NWS: Historiography of the Beginning of the Nuclear Disorder in South Asia,” *IHR*: 1115-1133.

nuclear order throughout the unsettling 1970s, as Nuti argues, scholars need to definitely merge nuclear and international history. In this attempt, important focal points include a shift of inquiry to the less developed countries, the ways mistrust of the NPT led to the rise of multipolarism, the intersection between the transformation in nuclear technological systems and the global energy crisis, the role of the United States in the governance of the international system, the rise of non-state-actors and the role of international organizations in international affairs.

In focusing on the 1970s, Holloway's and Nuti's collection is valuable for highlighting the continuities and the long-term processes in the transformations of the global nuclear order and their entanglement with international economic and political affairs. Methodologically, the collection raises an issue that stands at the core of nuclear history although we tend to neglect it till the moment access is denied: archival materials. As Holloway remind us, one of the reasons that historians paid less attention to the 1970s is because archival documents remained classified and all too often oral history was not possible.⁶ When classified papers were released under thirty-year-rule, scholars turned their attention to this decade, shedding light on unexplored episodes in the dense nuclear history of the 1970s. Subject to classification, sudden withdrawal, or lack of transparency, nuclear archives are integral part of the nuclear order that produce them. As Målfrid Braut-Hegghammer notes, "There are no accessible archives for scholars to consult in Pakistan, where documents to the nuclear program remain classified".⁷ Her study of the ways in which the International Atomic Energy Agency assisted Pakistan to develop its early nuclear program takes thus advantage of a strong methodological tool. Braut-Hegghammer interviewed a number of senior Pakistani nuclear scientists and officials in order to acquire a first-hand perspective on a major nuclear regulatory institution.

Historians are accountable for the stories they tell, as history is a narrative that selectively foregrounds certain themes, actors, and periods. Although *Aspects of the Global Nuclear Order in the 1970s* broadens our vision of the non-proliferation regime by placing it in its international context, it leaves intact the concept of technological change and takes it for granted. The collection fails to adequately underline the mutual shaping of technology, regulatory organizations, non-state actors, and international affairs. Throughout the collection it feels as if nuclear reactors and materials changed hands in black boxes; the idea that nuclear power was more attractive to developing countries is based merely on technological breakthroughs in the nuclear sector; the materiality of uranium or plutonium was irrelevant or subordinate to their economic value. On the contrary, historians of technology and science studies scholars long ago argued that there is nothing inevitable in nuclear technological transformations and choices. Rather, there are social processes that give rise to nuclear arsenals and construct order. In *Inventing Accuracy*, for example, sociologist of science Donald MacKenzie opened the black box of American strategic ballistic nuclear missiles by showing how hard technical facts such as missile accuracy could be disputed.⁸ Gabrielle Hecht's *Being Nuclear* tells the story of the invention of the global uranium market and the nuclear order it dictated from an African perspective, devoting less space to

⁶ David Holloway, "Conclusion: Reflections on the Nuclear Order," *IHR*: 1210-1218 on 1211.

⁷ Målfrid Braut-Hegghammer, "Pakistan, Uranium and the International Atomic Energy Agency, 1970-1980," *IHR*: 1034-1048 on 1034.

⁸ Donald McKenzie, *Inventing Accuracy: A Historical Sociology of Nuclear Missile Guidance* (Cambridge: MIT Press, 1993).

the politics of London and Washington.⁹ After all, one could argue that the NPT is itself a form of technology. It is a machinery of power, of a highly developed international law, of nuclear policies and regulatory institutions, of an extended network of experts, diplomats, scientists, officials, and immense material sources where the state is just one among many other actors.

Without doubt, the articles in *Aspects of the Global Nuclear Order in the 1970s* reshape our impressions of how nuclear order became the way it is today by looking more closely at the international history of the 1970s. But it does this by adopting the ‘view from the center.’ In each single contribution the United States stands as the key point of reference, suggesting that the nuclear order is primarily shaped by it. The analytical framework remains bilateral and the state preserves its prominent position in international history. This perspective overlooks the dynamics of nuclear international organizations and their roles in defining, maintaining, or disturbing the nuclear order. Being scientific, diplomatic, and political institutions at once, nuclear international organizations such as the IAEA pose a challenge to both nuclear and international history that *Aspects of the Global Nuclear Order in the 1970s* missed altogether: how to account for the systematic and dramatic contrast between their organizational diplomatic structures and the epistemic machineries that allow member states to engage in multilateral negotiations and affect the global nuclear order.

These points apart, *Aspects of the Global Nuclear Order in the 1970s* is an inspiring collection that strengthens diverse voices, poses novel challenging questions, and brings forward different national perspectives on the history of nuclear order.

⁹ Gabrielle Hecht, *Being Nuclear: Africans and the Global Uranium Trade* (Cambridge: MIT Press, 2012).

Review by Elisabeth Roehrlich, University of Vienna

The 1970s are back in fashion, at least among historians. Some of the leading scholars in the United States and beyond have come to understand the decade as crucial in shaping our contemporary world. They interpret the events of the 1970s as markers of a crisis of industrial society and regard the developments of the decade as the origins of today's globalized world. As a seminal edited volume puts it, the 1970s came as the "shock of the global."¹ While over the last ten years a couple of overviews invigorated this new academic interest in the history of the 1970s, historians from a host of sub-disciplines now work on numerous aspects of the decade's history. The 1970s brought technological inventions that changed everyday life (from the pocket calculator to the Walkman), medical breakthroughs (such as the eradication of small pox), new attention to women's rights (the United Nations announced a "Decade for Women"), growing threats that continue to shape the present world (the rise of terrorism), and hopes for the thawing of Cold War tensions. Many government documents of that period are now available in archives around the world, offering treasure troves for historians.

The authors of the articles under review make use of these newly available sources and look at the 1970s through a very specific yet important lens. They are interested in the place of the 1970s in the history of the global nuclear order, and together they approach this topic in a remarkably broad geographical way. The *International History Review's* special issue, entitled "Aspects of the Global Nuclear Order in the 1970s," features new insights on the nuclear histories of Argentina and Brazil (Carlo Patti and Rodrigo Mallea), Israel (Or Rabinowitz), Pakistan (Målfrid Braut-Hegghammer as well as Rabia Akhtar), Romania (Eliza Gheorghe), India (Yogesh Joshi), West Germany (Dennis Romberg), Iran (Farzan Sabet), South Africa (Anna-Mart van Wyk), the United Kingdom (Suzanne Doyle), and the United States (Niccolò Petrelli and Giordana Pulcini).² Rather than searching for a grand master narrative on the nuclear history of the 1970s, the rich case

¹ Niall Ferguson, Charles Maier, Erez Manela, and Daniel J. Sargent, eds., *The Shock of the Global: The 1970s in Perspective* (Cambridge: Harvard University Press, 2010); Anselm Doering-Manteuffel, Lutz Raphael, and Thomas Schlemmer, eds., *Vorgeschichte der Gegenwart: Dimensionen des Strukturbruchs nach dem Boom* (Göttingen: Vandenhoeck & Rupprecht, 2016).

² Carlo Patti and Rodrigo Mallea, "American Seeds of ABACC? Findley's Proposal to Create a Mutual Nuclear Inspections System Between Brazil and Argentina," *The International History Review* 40:5 (Winter 2018): 996-1013; Or Rabinowitz, "Signed, Sealed but Never Delivered: Why Israel did not Receive Nixon's Promised Nuclear Power Plants," *The International History Review* 40:5 (Winter 2018): 1014-1033; Målfrid Braut-Hegghammer, "Pakistan, Uranium and the International Atomic Energy Agency, 1970-1980," *The International History Review* 40:5 (Winter 2018): 1034-1048; Rabia Akhtar, "Making of the Seventh NWS: Historiography of the Beginning of the Nuclear Disorder in South Asia," *The International History Review* 40:5 (Winter 2018): 1115-1133; Eliza Gheorghe, "Peace for Atoms: US Non-Proliferation Policy and the Romanian Role in the Sino-American Rapprochement, 1969-1971," *The International History Review* 40:5 (Winter 2018): 1049-1072; Yogesh Joshi, "Between Principles and Pragmatism: India and the Nuclear Non-Proliferation Regime in the Post-PNE Era, 1974-1980," *The International History Review* 40:5 (Winter 2018): 1073-1093; Dennis Romberg, "How to Further Develop the Nonproliferation Regime? West German Nuclear Exports to Brazil and Iran in Context of US Criticism," *The International History Review* 40:5 (Winter 2018): 1094-1114; Farzan Sabet, "The April 1977 Persepolis Conference on the Transfer of Nuclear Technology: A Third World Revolt Against US Non-Proliferation Policy?" *The International History Review* 40:5 (Winter 2018): 1134-1151; Anna-Mart van Wyk, "South African Nuclear Development in the 1970s: A Non-Proliferation Conundrum?," *The International History Review* 40:5 (Winter 2018): 1152-1173; Suzanne Doyle, "Preserving the Global Nuclear Order: The Trident Agreements and the Arms Control Debate, 1977-1982," *The International History Review* 40:5 (Winter 2018): 1174-1190; Niccolò Petrelli and Giordana Pulcini, "Nuclear Superiority in the Age of Parity: US Planning,

studies illuminate different facets of what Rabia Akthar in her article calls the “beginning of the nuclear disorder” (1115). Instead of discussing each of the articles individually, I want to highlight a few themes that characterize the articles and the special issue as a whole.

The articles assembled in this special issue examine the 1970s as a decade in which the United States came to prioritize nuclear nonproliferation policies over other foreign policy goals. The Soviet Union, on the other hand, remains somewhat pale in many of the articles. This is striking, since the authors highlight throughout the special issue that notwithstanding their Cold War rivalry, the Americans and the Soviets had a shared interest in nuclear nonproliferation. This bias, it seems, is in large parts not due to a lack of interest in Soviet nonproliferation policies, but the result of the difficulties in getting access to Soviet archival documents. There simply is much more evidence about the American side of the story. Against this background, Eliza Gheorghie’s fascinating article on the Romanian role in the Sino-American rapprochement is an especially important contribution to this special issue as it is built on archival research in Romania.³

When looking at the political timeline, the 1970s indeed seem to be the decade of nonproliferation. The Nuclear Non-Proliferation Treaty (NPT), which aimed to freeze the number of nuclear weapons states once and for all, entered into force in 1970. The Indian test of a so-called Peaceful Nuclear Explosion (PNE) in 1974 was the first major throwback for the emerging global nonproliferation regime. India, an influential founding member of the International Atomic Energy Agency (IAEA), had not signed the treaty. Many states of the Global South regarded the NPT, which was based on the division between the ‘nuclear haves’ and the ‘nuclear have-nots,’ as highly discriminatory in nature. It is one of the extraordinary strengths of this special issue that it offers new and differentiated insights into the reactions to American nonproliferation policies in capitals around the world. The articles are a stark reminder that the history of the nuclear age is as much a history of North-South dynamics as it is a history of the East-West conflict. It is a true pleasure to read these histories from foremost experts of different global regions assembled in one issue.

The mounting North-South tensions over the NPT played out particularly in international organizations, such as the United Nations (UN) and the IAEA. Overall, the articles focus mainly on government policies and actions, but the dynamics in international organizations, as well as the interests of the private nuclear industry and other involved actors, surface as well in the individual articles—including an unorthodox personal nonproliferation initiative from a member of U.S. Congress.⁴ Farzan Sabet borrows Joseph S. Nye’s notion of “transnational nuclear elites” to characterize these actors (1147). The establishment of, and the discussions of, the Nuclear Suppliers Group (NSG) receive considerable attention. In their brief introduction to the special issue, the editors David Holloway and Leopoldo Nuti explain that shedding light on this

Intelligence Analysis, Weapons Innovation and the Search for a Qualitative Edge 1969–1976,” *The International History Review* 40:5 (Winter 2018): 1191-1209.

³ Eliza Gheorghie, “Peace for Atoms: US Non-Proliferation Policy and the Romanian Role in the Sino-American Rapprochement, 1969-1971, *The International History Review* 40:5 (Winter 2018): 1049-1072.

⁴ Patti/Mallea, “American Seeds of ABACC?”

“nuclear institution-building” was one of incentives for the publication project.⁵ In 1975, the Soviet Union participated in the creation of the NSG, together with six other major nuclear supplier nations, all of which were leading nations of the ideological West: the United States, the United Kingdom, France, West Germany, Japan, and Canada. It was a “voluntary, secretive, elite club of countries that offered nonbinding guidelines for national nuclear supply practice.”⁶ Isabelle Anstey’s excellent article on the role of the NSG is probably the best historical examination of this group in the existing literature.⁷ Anstey, and other authors in the issue as well—especially Braut-Hegghammer—debunk the myth that states used the IAEA and the NSG to find non-political, technical ways to prevent or slow down nuclear weapons proliferation. Rather, economic considerations and political interests beyond the nonproliferation agenda affected what apparently were purely technical decisions.

The title of the special issue prominently uses the notion of the “global nuclear order,” and most articles employ it as well. Unfortunately, the editors of the issue miss the opportunity to engage in a deeper conceptual debate over what ‘global nuclear order’ actually means and what it entails (and what not). Most of the articles—with the exceptions of Suzanne Doyle’s article on the U.S.-UK Trident Agreements as well as Niccolò Petrelli and Giordana Pulcini’s study on U.S. strategic nuclear planning—concentrate on nonproliferation, leaving the readers with the impression that the global nuclear order primarily is the international nonproliferation regime. David Holloway explains in his introduction to the special issue: “IAEA safeguards and export control guidelines are less exciting than the nuclear arms race, less frightening than nuclear crisis, less troubling than nuclear war plans, but they are nonetheless an absolutely vital element of the nuclear order that began to emerge in the 1970s.”⁸ While Holloway briefly refers to arms control negotiations between the United States and the Soviet Union, crucial aspects of the decade’s nuclear history receive little to no attention: what about the role of the growing protest movement against nuclear power? The Three Mile Island accident of 1979 brought the safety risks of nuclear power generation to the attention of the broad public. Even the staunchest diplomatic and economic historians will admit that, at least in Western Europe, the fading public support for nuclear energy that emerged in the 1970s had a lasting impact on politics and economics.

This brings me to my final point, which refers to the future of the discipline of diplomatic and international history more generally. In a thought-provoking discussion of the historiography of the 1970s, Leopoldo Nuti explores the synergies that could emerge from an exchange of ideas between scholars of nuclear proliferation and historians of other sub-disciplines. In this context, he identifies “a significant chasm” between scholars of

⁵ David Holloway and Leopoldo Nuti, “Introduction,” *The International History Review* 40:5 (Winter 2018): 963-964, 963.

⁶ Isabelle Anstey, “A Gentlemen’s Agreement,” in Sarah Weiner, ed., *Nuclear Scholars Initiative: A Collection of Papers from the 2013 Nuclear Scholars Initiative* (Lanham: Rowman and Littlefield, 2014):1-14, 1.

⁷ Isabelle Anstey, “Negotiating Nuclear Control: The Zangger Committee and the Nuclear Suppliers’ Group in the 1970s,” *The International History Review* 40:5 (Winter 2018): 975-995.

⁸ David Holloway, “Conclusion: Reflections on the Nuclear Order,” *The International History Review* 40:5 (Winter 2018): 1210-1218, 1213.

global history and historians of transnational relations on one hand, and diplomatic historians on the other.⁹ While he underlines the importance of global history approaches, he also fears that this might lead to a dangerous neglect of state actors and the international system. Similar arguments have been made recently by Hal Brands and Francis Gavin as well as by Joseph Maiolo. As the latter has put it: “War, diplomacy, and the interaction of policy elites are not the only activities of significance in the history of our globalising world, but the horrific potential of the states system for violence must be the prime concern for any academic endeavour that adopts the epithet ‘international.’”¹⁰ Given the authors of this special issue, as well as the larger community of the Nuclear Proliferation International History Project (NPIHP), which is behind this special issue, my impression is that the next generation of nuclear historians is about to overcome this chasm.

⁹ Leopoldo Nuti, “The Making of the Nuclear Order and the Historiography on the 1970s,” *The International History Review* 40:5 (Winter 2018): 965-974, 972.

¹⁰ Joseph Anthony Maiolo, “Systems and Boundaries in International History,” *The International History Review* 40:3 (Summer 2018): 576-591; Hal Brands and Francis J. Gavin, “The Historical Profession is Committing Slow-Motion Suicide,” *War on the Rocks*, 10 October 2018: <https://warontherocks.com/2018/12/the-historical-profession-is-committing-slow-motion-suicide/>.