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‘A Hard Story to Tell’: Creative Dismantling and (Re)making Post-Nuclear Worlds Through Collage

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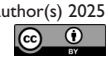
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Abstract

How can futures without nuclear weapons be imagined from within International Relations (IR)? This article details a speculative future-making exercise that applied the collage method in the IR classroom to gain insight into how participants think about nuclear weapons futures and the obstacles encountered to conceiving of futures without nuclear weapons. It finds that two broad thought structures are at work to condition the boundaries of imagination: ‘nuclear exceptionalism’, which works to constrain imaginary processes, and ‘nuclear ambivalence’, which permits the imagination of a wider range of futures. This article makes two core contributions. The first is pedagogical, demonstrating how collaging can facilitate critical reflection on the boundaries of imagination regarding nuclear weapons. The second is conceptual, illustrating the development and practical application of the ‘worldmaking’ concept in IR, widening its analytical potential and showing researchers and practitioners a creative method of advancing an anti-nuclear politics of the future.

Keywords

nuclear weapons, worldmaking, collage

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Introduction

Nuclear apocalypse is famously difficult to imagine, because it can only be viewed from the vantage point 'of a corpse, but from that vantage point, of course, there is nothing to report'.[1] However, the various stand-ins for this experience of 'accounts of death counts, areas destroyed, mass injuries, infrastructure obliterated, environments despoiled' are more readily conjured through mainstream public discourse than the possibility of nuclear disarmament.[2] What Thomas Schelling described as 'the threat that leaves something to chance', by its very nature, obliges nuclear-armed states to threaten total nuclear annihilation, a threat of which they are never in full control.[3] As such, nuclear deterrence incubates the possibility of an instantaneous end of the world, outside of human control, at any moment. Moreover, asking 'whose world?' and 'whose ending?' reveals that nuclear weapons have already ended multiple worlds and continue to do so.[4] For many, the cosmologies and conditions of Indigenous lifeworlds have already been destroyed by nuclear weapons activities, from explosive tests to uranium mining.[5] Thinking in such proximity to these ends of the world(s), threatened, real, and quotidian, it is indeed difficult to imagine a world without nuclear weapons. The problem is only compounded within disciplinary International Relations (IR), which struggles to imagine either the end of the world or one in which nuclear disarmament has been achieved.

This article explores the possibilities generated by arts-based interventions for facilitating thinking about (post)-nuclear futures, driven by a normative commitment to nuclear disarmament. Collage as a research method has not been widely adopted in IR, although a small number of scholars have begun to explore its potential.[6] Except for a study by Saara Särmä,[7] collage as a methodology in nuclear politics research has yet to

1. Jonathan Schell, *The Fate of the Earth* (New York, NY: Avon Books, 1982), 26.
2. Laura Considine, 'Thinking Through and Beyond Survival in a Nuclear Age', *Review of International Studies*, Early View (2025): 1–18, https://doi.org/10.1017/S0260210525000105.
3. Thomas C. Schelling, *The Strategy of Conflict* (Cambridge, Mass: Harvard University Press, 1981), 187–8.
4. J. Hudson, 'The End of the World, for Whom? Or, Whose World? Whose Ending? An Afrofuturist and Afropessimist Counter Perspective on Climate Apocalypse', *American Studies* 60, no. 3/4 (2021): 77–82, https://doi.org/10.1353/ams.2021.0028.
5. Joseph Masco, *The Nuclear Borderlands: The Manhattan Project in Post-Cold War New Mexico* (Princeton, NJ: Princeton University Press, 2006); Matthew Hall, 'The Whiteness of the Bomb: Nuclear Weaponry, Race and the Nation in Australian Indigenous Poetics', *Journal of Language, Literature, and Culture* 65, no. 3 (2018): 152–68, https://doi.org/10.1080/20512856.2018.1546649; Anaïs Maurer and Rebecca H. Hogue, 'Special Forum Introduction: Transnational Nuclear Imperialisms', *Journal of Transnational American Studies* 11, no. 2 (2020): 25–43, https://doi.org/10.5070/T811205049.
6. Anni Kangas et al., 'Smashing Containers, Queering the International Through Collaging', *International Feminist Journal of Politics* 21, no. 3 (2019): 355–82, https://doi.org/10.1080/14616742.2018.1535249; Saara Särmä, 'Collage as an Empowering Art-Based Feminist Method for IR', in *Critical Methods for the Study of World Politics: Creativity and Transformation*, eds. Shine Choi, Anna Selmeczi and Erzsébet Strausz (Abindgdon, Oxon: Routledge, 2019) 209-305.
7. Saara Särmä, *Junk Feminism and Nuclear Wannabes: Collaging Parodies of Iran and North Korea* (Tampere: University of Tampere, 2014).

be investigated. However, a collective of feminist and decolonial scholars has generated a suite of innovative nuclear teaching activities that incorporate collage,[8] demonstrating the versatility and potential of the medium. More specifically, no existing work explores the potential role of collage in constituting and disrupting understandings of (post-) nuclear futures. Accordingly, in this paper, I set out to investigate students' beliefs about the nuclear present future through the medium of collage, examining not only how this can contribute to IR pedagogy but also to a broader liberatory politics of the future through a worldmaking lens.

The contribution of this article is twofold. In a narrow sense, it is pedagogical: I empirically demonstrate how using collage as a pedagogical tool helps IR students to engage with disruptive and challenging questions about the future. It is a response to the question posed by Peters: 'what responsibility of care do teachers have toward their students in an apocalyptic age?"[9] Here, I provide one answer. In the face of unaccountable nuclear danger and violence, generative 'worldmaking' activities might begin to allow students to explore anti-nuclear politics in a valence which is not usually permitted by either mainstream IR scholarship or by the dominant methods of teaching it. The creative, visual-arts-based activity documented here permits students to free themselves of the requirement for certainty and academic seriousness in essay-writing by making a virtue of mess, uncertainty, and ambivalence. This opens an opportunity for students to reflect on the limits to their imagination imposed by IR's nuclear canon and enrich their understanding of nuclear politics. However, it is also an effort to communicate to them that the 'dismal and limited'[10] future worlds that they are inured to through conventional scholarship are not inevitable.

However, in a broader register, this exercise is part of a project of 'post-nuclear worldmaking', contributing to a methodological toolbox which permits not only students but also 'non-expert' global citizens of all stripes an opportunity to stake a claim to the future in an existential area of world politics – nuclear weapons policy – where no formal democratic outlet exists. In exposing participants to the gap between the futures that can be imagined through creative visual methods on one hand, and the truncated range of thinkable nuclear futures that are made available through mainstream nuclear scholarship and policy, this activity lays the imaginative groundwork for revitalizing public contestation of nuclear policy outside of formal democratic structures. While this research was performed in the classroom, my hope is that anti-nuclear activists and progressive nuclear diplomats will recognize the potential in the kind of concrete and creative exercise detailed here and feel encouraged to adapt the process to their own settings. Imagination itself is not agency, and I do not suggest that classroom or imaginative

8. Highly NRiched, 'Atomic Homes', 2023. Available at: https://highlynriched.com/downloads/atomic-homes/.
9. Michael A. Peters, 'The Threat of Nuclear War: Peace Studies in an Apocalyptic Age', *Educational Philosophy and Theory* 51, no. 1 (2019): 4, https://doi.org/10.1080/00131857.2017.1367876.
10. Rob Cullum, 'Making a World of Climate Insecurity: The Threat Multiplier Frame and the US National Security Community', *Global Studies Quarterly* 4, no. 4 (2024): 1–13, https://doi.org/10.1093/isagsq/ksae085.

exercises alone are sufficient forms of action against nuclear eternity. However, as I will argue, thinkability is a prerequisite for political agitation towards alternative futures. As such, this article contributes an example of how worldmaking – which remains a theoretically contested and somewhat woolly concept in IR – can be applied in a practical sense, making it a useful blueprint for practitioners.

I first outline the theoretical logic behind this research before demonstrating the pedagogical links between post-nuclear worldmaking and collage methods. I then introduce and discuss the collaging workshops conducted with students. The key findings are that student beliefs about nuclear weapons are influenced by two main structures of thought: Gabrielle Hecht's 'nuclear exceptionalism',[11] and Itty Abraham's 'nuclear ambivalence'.[12] Exceptionalist understandings of nuclear weapons politics constrained students' abilities to imagine futures without nuclear weapons. By contrast, ambivalent understandings of nuclear politics were associated with greater freedom of imagination and a willingness to blur the binary distinctions that structure mainstream nuclear thought. I conclude by discussing the implications of these findings.

Post-Nuclear Worldmaking: What and Why?

Rob Cullum defines worldmaking as 'the process by which actors and agents intellectually order and enact a specific vision of the world'.[13] Though sharing some commitments with constructivist IR, worldmaking is not only a discursive process. Instead, it is 'rooted in analyses of *both* speech and action, and deliberately tries to connect the two [. . .] to demonstrate how these are connected and embodied in real-world practice'.[14] Actors make worlds first through a process of interpretation, synthesizing a unified understanding of a whole world from disparate fragments, then acting on these understandings to bring into being desired or anticipated visions of future worlds. Worldmaking as an activity is defined by its aggregative nature, its emphasis on the internal coherence of posited worlds, and its temporal orientation towards the future.[15]

Worldmaking has been deployed in different registers, but most rigorously in postcolonial and historical scholarship. Getachew's important *Worldmaking After Empire* recasts anticolonial nationalism in the mid-20th century not only as resistance, but as a worldmaking project. Formal independence was insufficient for postcolonial states, locked in relationships of informal domination with the imperialist core, to realize their rightful global citizenship. 'Decolonization understood as a revolutionary project thus required remaking the international order [. . .] Nation-building was to be situated and

11. Gabrielle Hecht, 'Nuclear Ontologies', *Constellations* 13, no. 3 (2006): 320–31, https://doi.org/10.1111/j.1467-8675.2006.00404.x.
12. Itty Abraham, 'The Ambivalence of Nuclear Histories', *Osiris* 21, no. 1 (2006): 49–65, https://doi.org/10.1086/507135.
13. Ibid., 7.
14. Ibid.
15. Ibid., 7–8.

realized through worldmaking'.[16] While the principal agents in Getachew's account of worldmaking were the political elites of postcolonial states, Dilawri[17] makes note of Bell's reminder that 'all humans partake in world making, although many do so only insofar as they help to reproduce existing worlds'.[18] Accordingly, here I expand the purview of who counts as worldmakers to non-elite, everyday citizens – though non-elite does not mean non-expert, since one of the rationales of this activity is to enable participants to comment on the so-called 'high' politics of nuclear weapons through their own experiential knowledge.

I somewhat diverge from the postcolonial worldmaking scholarship, not focusing on the histories of worldmaking projects but instead engaging in a speculative exercise built around processes of imagination and curiosity about possible futures. I emphasize the 'aggregative' and 'future-facing'[19] elements of worldmaking, which can be drawn out through creative methods to provide an ideational foundation for worldmaking practice. In this vein, Jackson advocates purposively designing 'grand strategies meant to generate alternative futures that are more egalitarian, democratic, and peaceful than today'.[20] Strategic practice is a form of worldmaking,[21] because it 'always has grand political implications: any strategy with the ambition of directing the national security state presupposes allocating resources and exercising (state) power, often at scale'.[22] Understandings of strategy and security derive from intellectual processes of aggregation, making a disordered and fragmented world legible to strategic practitioners, who then act upon the world thus made to further (re)make it according to their visions: a unity of interpretative and active practice.

Vaughan advocates for a similarly generative worldmaking approach aimed at enabling creative thought about alternative (post-)nuclear futures.[23] This 'post-nuclear worldmaking' has three core characteristics, similar to those outlined by Cullum: it should be future-oriented, 'synoptic', and 'connected'.[24] 'Synoptic' denotes an approach

16. Adom Getachew, *Worldmaking After Empire: The Rise and Fall of Self-Determination* (Princeton, NJ: Princeton University Press, 2019), 17.
17. Shikha Dilawri, 'The Worldmaking of Mobile Vernacular Capitalists: Tracing Entanglements Between Race, Caste and Capital', *Millennium* 52, no. 1 (2023): 9–35, https://doi.org/10.1177/03058298231174250.
18. Duncan Bell, 'Making and Taking Worlds', in *Global Intellectual History*, eds. Samuel Moyn and Andrew Sartori (New York, NY: Columbia University Press, 2013), 261.
19. Cullum, 'Making a World of Climate Insecurity'.
20. Van Jackson, *Grand Strategies of the Left: The Foreign Policy of Progressive Worldmaking* (Cambridge: Cambridge University Press, 2023), 2.
21. Joseph Mackay, *The Counterinsurgent Imagination: A New Intellectual History* (Cambridge: Cambridge University Press, 2023).
22. Jackson, *Grand Strategies of the Left*, 22.
23. Tom Vaughan, 'Post-Nuclear Worldmaking and Counter-Hegemony: Against Catastrophic Failures of Imagination', *European Journal of International Security* 9, no. 3 (2024): 320–39, https://doi.org/10.1017/eis.2024.4.
24. Ibid., 333.

that thinks not only about nuclear disarmament, but *around* it: what implications might the condition of nuclear disarmament have on the rest of the world? This encourages worldmaking practitioners to think about the broader social, economic, ecological, or technological contexts that sustain nuclear armament, and to ask what 'a speculative vision of a post-nuclear future [might] reveal about how that world works, and what about this is similar or different to our own'.[25] 'Connected' here means that the goal of post-nuclear worldmaking experiments is not to stop at generating utopian visions of the future, but to illuminate links and commonalities between post-nuclear worlds and our present, nuclear-armed one, examining how imaginaries 'are rooted in the present world and its material conditions', thus connecting the future to the present.[26] I diverge slightly from this programme here by de-emphasizing scenario-based methodologies, in favour of a looser, more descriptive approach to thinking about futures, which is more amenable to radical difference. By demonstrating how this speculative variety of worldmaking can be employed in a practical manner, I hope to somewhat mollify the complaints of scholars like Quah, who rightly notes that 'worldmaking' has become such a broad signifier that its analytical utility is threatened.[27] I show that worldmaking can be both analysed and implemented in different, analytically distinct but still complementary registers.

I offer two rationales for engaging in post-nuclear worldmaking in the classroom and beyond. The main and first is that '[d]e-entrenchment of nuclear weapons is only possible if it is regarded as conceivable, so that actors can invest in the space of political contestation they imagine. In other words, not conceiving of alternative futures is enough to perpetuate entrenched policies'.[28] The nuclear disarmament movement has paid little attention so far to the purposive imagination of post-nuclear future worlds, which can be attributed in part to a conscious strategic choice on the part of some nuclear weapons abolitionists to focus on 'realistic', 'achievable', and 'adjacent possible' goals.[29] While perhaps strategically prudent, this discourages imaginative processes, instead conforming to the status quo of nuclear weapons governance.[30] Compounding matters, Pelopidas demonstrates how policies which are ostensibly aimed at bringing about nuclear disarmament and official invocations of a nuclear-disarmed future almost always conceal a commitment to 'nuclear eternity': 'the idea that no future without [nuclear weapons] is conceivable'.[31] Ritchie argues that '*different* nuclear worlds without nuclear weapons are

25. Ibid., 336.
26. Ibid., 338.
27. Say Jye Quah, 'An Anatomy of Worldmaking: Sukarno and Anticolonialism from Post-Bandung Indonesia', *American Journal of Political Science*, Early View (2025): 1–16, https://doi.org/10.1111/ajps.12963.
28. Benoît Pelopidas et al., 'How Dawn Turned into Dusk: Scoping and Closing Possible Nuclear Futures after the Cold War', *Journal of Strategic Studies*, Early View (2024), https://doi.org/10.1080/01402390.2023.2290441.
29. Vaughan, 'Post-Nuclear Worldmaking and Counter-Hegemony', 324–8.
30. Laura Considine, 'Contests of Legitimacy and Value: The Treaty on the Prohibition of Nuclear Weapons and the Logic of Prohibition', *International Affairs* 95, no. 5 (2019): 1087–90, https://doi.org/10.1093/ia/iiz103.
31. Benoît Pelopidas, 'The Birth of Nuclear Eternity', in *Futures*, eds. Kate Kemp and Jenny Andersson, Oxford Twenty-First Century Approaches to Literature (Oxford: Oxford University Press, 2021), 485.

both possible and necessary for collective safety'.[32] However, restricting the scope of post-nuclear futures to 'our present world, without nuclear weapons',[33] in the name of maximizing 'connection' to the present, risks closing off potential avenues based on subjective judgements about what is 'plausible' or 'probable'.[34]

Simply envisioning the future is, of course, not sufficient to bring it into being. However, engaging in the collective imagination of different futures can help otherwise disenfranchised groups to 'lay claims to the future, seeking to create a future that suits their interests and represents their values [. . .] a political act of shaping the change trajectory of a social system'.[35] Imagination is a necessary first step in developing an oppositional, counter-hegemonic nuclear politics based on the promise of a safer and more just future, since shared social imaginaries are the linchpin of collective political organization.

This brings me to the second premise, which is that nuclear weapons, as Deudney has argued,[36] are 'intrinsically despotic' due to the sheer amount of destructive power which, to make nuclear deterrence credible, must be concentrated in the hands of a single individual decision-maker and ready to be unleashed at a moment's notice, with no pathways of accountability available to those affected. Nuclear weapons are thus definitionally incompatible with most understandings of democracy.[37] This holds true even if nuclear weapons are notionally employed to defend the principles of democracy.[38] Furthermore, 'credible deterrence' relies on nuclear policy being removed from the realm of electoral choice, because asking the public about nuclear weapons at the ballot box may be interpreted by adversaries as betraying a lack of willingness to use them.[39] As a result, the publics of nuclear and non-nuclear-armed states alike are unavoidably subject to the (unequally distributed) harmful effects of nuclear weapons development and potential

32. Nick Ritchie, 'A Contestation of Nuclear Ontologies: Resisting Nuclearism and Reimagining the Politics of Nuclear Disarmament', *International Relations* 38, no. 4 (2024): 8, https://doi.org/10.1177/00471178221122959.
33. Pelopidas, 'The Birth of Nuclear Eternity', 489.
34. Vaughan, 'Post-Nuclear Worldmaking and Counter-Hegemony', 331.
35. Manjana Milkoreit, 'Imaginary Politics: Climate Change and Making the Future', *Elementa: Science of the Anthropocene* 5 (2017): 9, https://doi.org/10.1525/elementa.249.
36. Daniel Deudney, *Bounding Power: Republican Security Theory from the Polis to the Global Village* (Princeton, NJ: Princeton University Press, 2007), 255–66.
37. Thomas Fraise, 'Nuclearization and De-Democratization: Security, Secrecy, and the French Pursuit of Nuclear Weapons (1945–1974)', *European Journal of International Relations* 31, no. 1 (2025): 203–26, https://doi.org/10.1177/13540661241301648; Sterre van Buuren, 'The Arsenal and the Ballot Box: Scoping the Incompatibility of Nuclear Weapons and Democracy', *Perspectives on Politics*, Cambridge University Press, Early View (2025): 1–18, https://doi.org/10.1017/S1537592724002664.
38. Thomas E. Doyle II, 'Liberal Democracy and Nuclear Despotism: Two Ethical Foreign Policy Dilemmas', *Ethics & Global Politics* 6, no. 3 (2013): 155–74, https://doi.org/10.3402/egp.v6i3.20344.
39. Steve Cooke and Andrew Futter, 'Democracy Versus Deterrence: Nuclear Weapons and Political Integrity', *Politics* 38, no. 4 (2018): 500–13, https://doi.org/10.1177/0263395717733978.

global nuclear war. By contrast, there is significant contestation among public attitudes toward nuclear policy, for which no formal democratic outlet exists.[40]

Given this democratic deficit, why even bother trying to imagine alternatives? Nick Ritchie's distinction between 'hegemonic' and 'subaltern' forms of anti-nuclearism is useful here. Hegemonic anti-nuclearism emphasizes the importance of working with policy insiders in nuclear-armed states to bring about disarmament, making incremental advancements and small reforms.[41] This approach presupposes that change must be advanced through formal political institutions, including representative democracy. Subaltern anti-nuclearism, however, sees this as a dead end and advocates a more agonistic and grassroots approach that links up with social movements to force anti-nuclear politics onto the agenda. Crucial to these strategies are positive visions of a world liberated from the fear and authoritarianism that nuclear armament entails. Here, I detail my attempt to pursue this political project in the classroom.

Collage as Worldmaking Pedagogy: Methodology and Ethics

As Kangas et al. note, 'collages are quite concretely about making and crafting something into being'.[42] Collaging is, therefore, a useful tool for exploring imaginaries of alternative or future worlds in a manner that is rarely practiced in university teaching. However, collaging also requires that these imaginaries are not constructed from scratch: participants must rely on already-available cultural resources, represented through images and snippets which have emerged from present social and political formations – encapsulating the aggregative dimension of worldmaking. Their task is to creatively break down and reorganize these resources into something new. Post-nuclear worldmaking likewise proceeds from a rootedness in historical processes and our current nuclear condition,[43] although participants are still encouraged to push received boundaries of plausibility and imagination. In this way, students are encouraged to take the world as they find it, reshaping disparate ideas and concepts into alternative configurations. Collaging is thus aligned with the overarching theoretical and political framework of post-nuclear worldmaking.

Pedagogically speaking, Kangas et al. further point out that this process of creative dis/reassembly allows participants to disrupt 'either/or' logics in favour of 'and/

40. Kjølv Egeland and Benoît Pelopidas, 'European Nuclear Weapons? Zombie Debates and Nuclear Realities', *European Security* 30, no. 2 (2021): 237–58, https://doi.org/10.1080/09662839.2020.1855147; Michal Onderco, Michal Smetana and Tom W. Etienne, 'Hawks in the Making? European Public Views on Nuclear Weapons Post-Ukraine', *Global Policy* 14, no. 2 (2023): 305–17, https://doi.org/10.1111/1758-5899.13179.
41. Ritchie, 'A Contestation of Nuclear Ontologies', 498–9.
42. Kangas et al., 'Smashing Containers, Queering the International Through Collaging', 378.
43. Nick Ritchie and Kjølv Egeland, 'The Diplomacy of Resistance: Power, Hegemony and Nuclear Disarmament', *Global Change, Peace & Security* 30, no. 2 (2018): 121–41, https://doi.org/10.1080/14781158.2018.1467393.

or', permitting expressions of uncertainty, ambivalence, and contradiction.[44] This frees participants from the 'pro/anti'-nuclear binary, as well as the putative certainties of mainstream positivist IR. As Pelopidas details, mainstream defences of the nuclear status quo present the idea that a post-nuclear world would be more conventionally violent as a structural certainty. This is not certain at all: rather, one 'risky hypothesis among others'.[45] Collaging encourages learners to shed the garb of the all-seeing, objective analyst that they are required to don when arguing in essay assignments. Instead, they are freed up to examine the uncertainties and contradictions of their thinking about nuclear politics as valid objects of study. Cobbling together found materials helps to ensure a '"bottom-up" quality' to the world conjured through collage, 'rather than through the omniscient third-person narrator'.[46]

Relatedly, collaging is an easy practice. Not only does this make it accessible as an activity, requiring no special artistic skill or prior experience, but ease can itself be radical and disruptive. 'The collage gesture's mereness and ease challenges the very notion that effort or labour is a prerequisite for quality and worth in meaning making', permitting a 'deskilled and flippant' attitude towards the subject matter at hand.[47] This stands in stark contrast to the dominant mode of working in IR, a stuffy discipline that takes itself extremely seriously. Seriousness in IR often takes the form of a 'stylized practice enabling the serious subject to performatively demonstrate their competence and authority' and is deployed 'circumscriptively' to protect privilege and stifle dissenting or undisciplined voices.[48] However, the 'technostrategic' language of ostensibly serious nuclear weapons scholarship obscures an underlying theory which many find both obscene and absurd.[49] The absurdity of nuclear deterrence is a long-standing theme of anti-nuclear critique,[50] with the figure of the clown a ubiquitous presence in peace campaigns during the Cold

44. Kangas et al., 'Smashing Containers, Queering the International Through Collaging', 378.
45. Benoît Pelopidas, 'A Bet Portrayed as a Certainty: Reassessing the Added Deterrent Value of Nuclear Weapons', in *The War That Must Never Be Fought: Dilemmas of Nuclear Deterrence*, eds. James Goodby and George Schulz (Stanford, Ca: Hoover Press, 2015), 11.
46. J.P. Singh, 'Pedagogies for Cultural Change: From Multimodal Learning to Building Theory in International Relations', in *The Oxford Handbook of International Studies Pedagogy*, eds. Heather A. Smith, Mark A. Boyer and David J. Hornsby (Oxford: Oxford University Press, 2024). 3–19.
47. Jorge Lucero, ed., *Mere and Easy: Collage as a Critical Practice in Pedagogy* (Champaign, IL: University of Illinois Press, 2016), 5.
48. Uygar Baspehlivan and Alister Wedderburn, 'Disciplinary Seriousness in International Relations: Towards a Counterpolitics of the Silly Object', *Global Studies Quarterly* 4, no. 2 (2024): 8, https://doi.org/10.1093/isagsq/ksae035.
49. Carol Cohn, 'Sex and Death in the Rational World of Defense Intellectuals', *Signs: Journal of Women in Culture and Society* 12, no. 4 (1987): 687–718, https://doi.org/10.1086/494362.
50. Robert Jay Lifton, 'Beyond Nuclear Numbing', *Teachers College Record* 84, no. 1 (1982): 15–29, https://doi.org/10.1177/016146818208400102; Rodger A. Payne, 'Stigmatization by Ridicule: From Dr. Strangelove to Donald Trump', in *Non-Nuclear Peace: Beyond the Nuclear Ban Treaty*, ed. Tom Sauer, Jorg Kustermans and Barbara Segaert (Cham: Palgrave Macmillan, 2019). 87–114.

War and beyond.[51] By inviting learners to intervene in nuclear politics flippantly and easily, the collage method creates space for this absurdity to be acknowledged through humour, sarcasm, and play.[52] Used to disarm seriousness in this way, collaging can democratize the making of post-nuclear futures, permitting students to intervene without having to conform to scholarly conventions that are often deployed to inhibit imagination.

Collaging workshops were conducted in a British university during spring 2024 as part of a first-year class on warfare and strategy, in addition to a programme of more standard teaching activities in the form of lectures and seminars. As part of the class's core content, students had already been introduced to the basics of nuclear deterrence theory and its critics. As such, participants were familiar with the subject matter but not experts. The large quantity of magazines sourced from the university's art department provided a wide range of visual materials, from paintings to patterns to experimental photography, which gave participants a rich bank of material to work with. Students were made aware of the project and provided with a participant information sheet several weeks in advance. The two-hour workshops then began with a short introduction to the exercise and rationale behind it. Research was conducted in line with the university's ethics procedures, and all contributions are anonymized.

Students were asked to collage in response to the prompt 'A future without nuclear weapons'. No further guidance was given except that participants could interpret this prompt however they liked. I avoided referencing nuclear disarmament to leave open the possibility that nuclear weapons may be non-existent for other reasons in the futures the students imagined. I chose not to follow Kangas et al. in relying solely on my own interpretative capacities when analysing students' collages.[53] Instead, I followed Culshaw and Prasad et al. in soliciting open-ended comments on their collage process by giving students the option to record a short, spoken, semi-structured interview with me outside the session.[54] Some students who chose to participate in these short conversations are anonymously quoted in the following section.

This choice was taken partly for ethical reasons, since interpretation is one of several ethical issues to be considered in research of this nature. Golding and Ince identify 'validity in interpretation and reporting' as one potential ethical tripwire in qualitative higher education research projects wherein 'the researcher is aiming to craft one of many valid interpretations of the data' and may thus interpret materials differently from how

51. Jessica Hurley, 'Infrastructure Beyond Control: Clowning the Nuclear Age', *Symploke* 28, nos. 1–2 (2020): 101–16, https://doi.org/10.5250/symploke.28.1-2.0101.
52. Saara Särmä, 'Collaging Internet Parody Images: An Art-Inspired Methodology for Studying Laughter in World Politics', in *Understanding Popular Culture and World Politics in the Digital Age*, eds. Laura J. Shepherd and Caitlin Hamilton (London: Taylor and Francis 2016), 175-188.
53. Kangas et al., 'Smashing Containers, Queering the International Through Collaging', 363.
54. Suzanne Culshaw, 'The Unspoken Power of Collage? Using an Innovative Arts-Based Research Method to Explore the Experience of Struggling as a Teacher', *London Review of Education* 17, no. 3 (2019): 268–83, https://doi.org/10.18546/LRE.17.3.03; Gail Prasad and The Lions BEd Group, 'Collage as a Pedagogical Practice to Support Teacher Candidate Reflection', *LEARNing Landscapes* 14, no. 1 (2021): 329–45, https://doi.org/10.36510/learnland.v14i1.1040.

participants intend.[55] I wanted to give students the chance to provide their own interpretation of their art alongside my own in recognition that both are valid and influenced by our respective positionalities. By the same token, it should be stressed that where my own interpretation of the work identifies elements that some may find problematic – for example, assumptions around gender and race in nuclear politics – my critical responses are not directed at the individual student. Students and I alike are working within a dominant discourse of IR which 'obscures the racialized, gendered, and class bases of power [and] naturalizes these divisions'.[56] Where such assumptions are critiqued, they are understood as products of the IR discourse in which we are embedded – although, as the following section shows, participants were not passive recipients of such discourses, often challenging or rearticulating them in creative ways.

More generally, pedagogical research in which students act as participants presents a range of well-known issues that require elevated attention to ethics to guard against, to the extent that some have argued against this practice altogether.[57] As such, in addition to adhering to the standard institutional ethics process, I took extra care to facilitate informed consent among participants. Measures included providing students with written information on the proposed research several weeks in advance and the study was conducted on an opt-in basis; the research took place as part of an already-scheduled teaching activity, ensuring that the benefits of participation extended to all students and not only those who consented to take part in the study; no incentives or rewards were offered for participation; and avoiding direct approaches to ask for participation in favour of a general, central call.[58] However, further justification is needed for including one's own students in pedagogical research, which is often done for reasons of convenience. Specifically, students must derive an educational benefit from participation. As outlined in the preceding section, this study emerged from a democratic ethic of facilitating students to express themselves more freely and widely on the topic of global nuclear politics than they are normally permitted to by the strictures of disciplinary IR in a university setting. As Barazangi argues, 'by integrating the world of ideals of social justice and information about the world, we may be able to moderate the splitting between rhetoric and action prevalent in the way social sciences are being taught'.[59] This encapsulates the ethical orientation of the study: to bridge the divide between abstracted social-scientific knowledge and everyday

55. Jennie Golding and Amanda Ince, 'Ethical Issues in Researching Higher Education Teaching and Learning', *Encyclopedia* 4, no. 3 (2024): 1153, https://doi.org/10.3390/encyclopedia4030074.
56. Geeta Chowdhry and Sheila Nair, 'Introduction: Power in a Postcolonial World: Race, Gender, and Class in International Relations', in *Power, Postcolonialism and International Relations* eds Geeta Chowdhry and Sheila Nair (New York: Routledge, 2013), 2.
57. Shirley K. Comer, 'The Ethics of Conducting Educational Research on Your Own Students', *Journal of Nursing Law* 13, no. 4 (2009): 100–105, https://doi.org/10.1891/1073-7472.13.4.100.
58. Michelle Cleary et al., 'Above All, "Do No Harm": Key Considerations When Including Students as Research Participants in Higher Education Settings', *Contemporary Nurse* 49, no. 1 (2014): 93–95, https://doi.org/10.1080/10376178.2014.11081958.
59. Nimat Hafez Barazangi, 'An Ethical Theory of Action Research Pedagogy', *Action Research* 4, no. 1 (2006): 100, https://doi.org/10.1177/1476750306060546.

experience, by encouraging students to reflect upon their own thoughts and feelings about nuclear weapons politics as a legitimate basis for political contestation.

Products of the Session: Discussion and Analysis

Each collage was scanned in colour, and several are reproduced in full here for reference. The workshop sessions produced 33 collages and 30 short interviews, addressing a wide range of topics which cannot be fully analysed in this article for reasons of space. Broadly, I found the collages to reflect two dominant structures of thought which have been influential in organizing nuclear weapons knowledge: 'nuclear exceptionalism'[60] and 'nuclear ambivalence'.[61] Exceptionalist themes tended to constrain the range of imagined futures, while more ambivalent pieces explored a wider set of possibilities.

Nuclear Exceptionalism: Fears of Chaos; Pleas for Order

Many collages also posited future worlds in which nuclear weapons do not exist, but the social structures and practices which previously sustained them – perhaps including militarism, state institutions, interstate conflict and competition, systems of meaning, and the logic of deterrence – [62]remain in place. Nuclear weapons, even in their immediate absence, thus often remain a ghost presence in these imaginaries, further cementing their assumed eternal nature.[63] These visions reflect the concept of 'nuclear exceptionalism' as defined by Hecht, meaning the portrayal of nuclear weapons as 'fundamentally different from any other human creation',[64] and Considine, as 'the idea that the nuclear is a unique and separate realm'.[65] A nuclear exceptionalist view understands nuclear weapons to be removed from the societal and political structures that facilitated their invention and continue to sustain their legitimacy and presence in world politics, leading to a belief that their presence is immutable, rather than contingent on complex systems that can be dismantled.

To be clear, in critiquing the effects of nuclear exceptionalism in this way, I do not deny that there is *something* exceptional or unique about nuclear *weapons*, which is the extreme mode of vulnerability that is generated as a function of their massive destructive power and speed, as well as the way in which they are insulated from democratic accountability. As such, calling for de-exceptionalizing nuclear weapons – relocating them in their sociotechnical context, which is a form of 'desacralizing' them[66] – is not the same

60. Hecht, 'Nuclear Ontologies'.
61. Abraham, 'The Ambivalence of Nuclear Histories'.
62. Nick Ritchie, 'Irreversibility and Nuclear Disarmament: Unmaking Nuclear Weapon Complexes', *Journal for Peace and Nuclear Disarmament* 6, no. 2 (2023): 218–43, https://doi.org/10.1080/25751654.2023.2282737.
63. Pelopidas, 'The Birth of Nuclear Eternity'.
64. Hecht, 'Nuclear Ontologies', 321.
65. Laura Considine, 'Narrative and Nuclear Weapons Politics: The Entelechial Force of the Nuclear Origin Myth', *International Theory* 14, no. 3 (2022): 562, https://doi.org/10.1017/S1752971921000257.
66. Benoît Pelopidas, *Repenser Les Choix Nucléaires: La Séduction de l'impossible* (Paris: Presses de Sciences Po, 2022), 264–9.

Figure 1. A bleak and grayscale non-nuclear future, marked by war.

as 'conventionalizing' them, which is a discursive move that wrongly minimizes and obscures nuclear danger.[67] To reiterate: my view is that 'the nuclear' is not fundamentally different from any other human realm, in the sense that it is enmeshed with many other areas of human activity. Nuclear weapons, however, generate a singular kind of vulnerability and danger.

Figure 1 is a representative example of nuclear exceptionalism at work. The artist imagines a bleak future, presented in grainy black and white photography of 20th-century conflicts, suggesting a regression to an anachronistic and bloody form of conventional warfare – 'eerie nostalgia', as the artist put it. The choice of images, which obscure the combatants' faces and make their nationality ambiguous (save for the British flag on the ship's deck and some identifiable uniform traits), also hints towards a conflict which is global in nature: nobody will be safe. The image expresses the artist's belief that

67. Hans Morgenthau, 'The Fallacy of Thinking Conventionally about Nuclear Weapons', in *Arms Control and Technological Innovation*, eds. New David Carlton and Carlo Schaerf (New York: Wiley, 1976), 255-264; Christian Enemark, 'Farewell to WMD: The Language and Science of Mass Destruction', *Contemporary Security Policy* 32, no. 2 (2011): 382–400, https://doi.org/10.1080/13523260.2011.590362.

> nuclear weapons [are] what prevents world powers from acting irrationally and aggressively, [they] make them more concerned about [. . .] the consequences their actions will have [. . .], which feels ironic [. . .] without nuclear weapons we would still experience a lot more destruction than with them.

Figure 2 similarly evokes a conflictual future, experienced second-hand through the eyes of a non-expert newspaper reader. The return of large-scale 'International War' is again evoked, this time through a heavy and literal usage of text. Cobbled-together headlines like 'Troops sent to keep European dream alive' and 'defending our home' again recall Cold War-era fears of conflict in the European theatre, with a military threat from the East – the nature of which the artist said was kept intentionally 'vague'– represented by images of St Basil's Cathedral, Moscow and the North Korean dictator Kim Jong-Un.

Both collages put forward an argument aligning with the structural realist common sense around nuclear weapons, which has prevailed in mainstream strategic thinking since the Cold War. Nuclear weapons are understood to have kept a long European 'peace' and displaced major power conflict during the Cold War, even if not everyone agrees with Waltz's maximalist contention that the spread of nuclear weapons to a greater number of states would be a stabilizing force for peace.[68] The position argued by these collages is encapsulated by Lewis: 'If it is the case that possessing a deadly weapon or being willing to threaten to use it in retaliation will avert a conflict in which millions would otherwise die, can it seriously be claimed that the more ethical policy is to renounce the weapon and let the millions meet their fate?'[69]

Figures 3 and 4 also demonstrate some commonly held assumptions around geography, nationality, and gender in nuclear politics. For example, it is possible that the focus on both Ukrainian and Israeli figures as representations of violent, non-nuclear conflict is no more than an incidental use of the materials closest at hand, since these two ongoing conflicts were depicted in some of the contemporary newspapers used in the workshops. However, they also emphasize the geographic proximity of violent conflict to a European audience, foregrounding experiences of Western peoples, which are perhaps more relatable to undergraduate students in a mostly white and British classroom. Here, we see a reflection of widespread Eurocentric assumptions in the study of nuclear weapons, principally that the relevant actors and referent objects of nuclear security are by default Western subjects. The amorphous eastern enemy evoked in Figure 2, by combining Russian and North Korean, also posits a binary between the 'West and the rest'[70] and echoes post-Cold War warnings that the 'free world' would dispose of nuclear weapons

68. Kenneth N. Waltz, 'The Spread of Nuclear Weapons: More May Be Better' (The Adelphi Papers 21, International Institute of Strategic Studies, London, 1981), https://doi.org/10.1080/05679328108457394.
69. Julian Lewis, 'Nuclear Disarmament Versus Peace in the Twenty-First Century', *International Affairs* 82, no. 4 (2006): 668–9, https://doi.org/10.1111/j.1468-2346.2006.00561.x.
70. Hugh Gusterson, 'Nuclear Weapons and the Other in the Western Imagination', *Cultural Anthropology* 14, no. 1 (1999): 111–43; Ritu Mathur, 'Techno-Racial Dynamics of Denial & Difference in Weapons Control', *Asian Journal of Political Science* 26, no. 3 (2018): 297–313, https://doi.org/10.1080/02185377.2018.1515640.

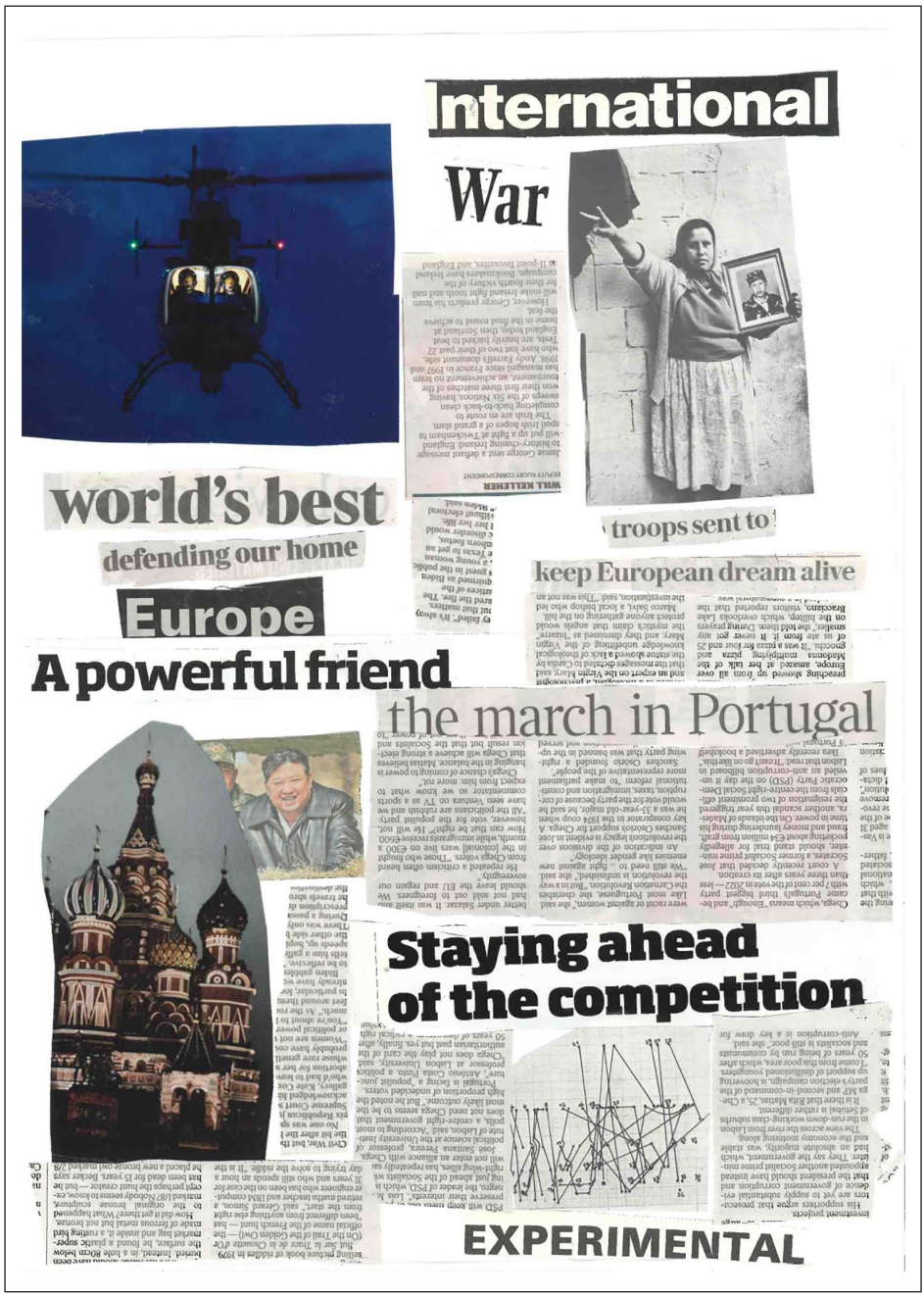

Figure 2. Another warlike non-nuclear future, seen through the eyes of a newspaper reader.

Figure 3. Here, the artist directly warns us against imagining non-nuclear futures - a childlike pursuit?

at its peril.[71] Most identifiable subjects in the collage also appear to be men. Nuclear disarmament, it is suggested, brings about 'no *man's* time', both referencing the 'no man's land' of the First World War (fought overwhelmingly by young men), and conflating the hypothetical future destruction of humankind with the end of 'man'. This reflects durable assumptions linking masculinity and war: in the event of nuclear abolition, it will fall to men to defend and protect the newly fragile political order, with bloody results.[72]

These collages demonstrate the difficulties inherent in trying to imagine radically changed (post-)nuclear futures. The pervasive influence of nuclear exceptionalism encourages the imagination of 'our present world, without nuclear weapons',[73] but with the assumption of both an inevitably conflictual and anarchic international system and intersecting systems of gender and racial oppression left intact. When nuclear weapons

71. Michael Quinlan, 'The Future of Nuclear Weapons: Policy for Western Possessors', *International Affairs* 69, no. 3 (1993): 485–96, https://doi.org/10.2307/2625231.
72. Iris Marion Young, 'The Logic of Masculinist Protection: Reflections on the Current Security State', *Signs: Journal of Women in Culture and Society* 29, no. 1 (2003): 1–25, https://doi.org/10.1086/375708.
73. Ritchie, 'A Contestation of Nuclear Ontologies', 499; Pelopidas, 'The Birth of Nuclear Eternity'.

Figure 4. Are grand, utopian visions always destined to collapse into conflict?

are understood to be unmoored from the rest of social and political organization, then the most intuitive post-nuclear imaginary is one in which they have evaporated from the face of the earth, leaving the structures that sustain them behind. These collages suggest that nuclear exceptionalism encourages dystopian imaginaries of post-nuclear futures,

reinforcing recent scholarship which argues for the importance of seeing nuclear weapons in their full societal and technological context.[74]

Notably, several collages that reflected elements of nuclear exceptionalism also questioned or even refused to engage with the chaotic and speculative aspects of the exercise. While collage as pedagogy encourages creative disassembly, (re)constituting a whole from disparate parts, the embrace of uncertainty and contradiction, and playful flippancy, in many instances these tenets were rejected in whole or in part. This resistance itself is of interest as it sheds further light on how students structure their beliefs about nuclear weapons.

Figures 3 and 4 are companion pieces produced by the same artist, while Figure 5 was produced by a different artist. Each offers something of a rebuke to those who might be tempted towards utopian dreams of nuclear disarmament. 'Are you really listening?', asks Figure 3: a question that could be aimed at the ranks of the nuclear disarmament-curious, but also appears to question the educator and cast doubt on the wisdom of the activity itself. This chimes with Kangas et al.'s observation that collage can subvert the positions of teacher and student relative to one another, enabling the learner to talk back to the educator.[75] The collage in Figure 3 gestures towards the voices that one should really be listening to: those with the direct experience of conventional, non-nuclear violence, and the lessons of pre-nuclear conflicts. Reproducing elements of the nuclear exceptionalist narrative discussed above, the piece deploys stark and eerie images of conflict alongside images of mess and disorder. These visuals, along with depictions of mourners and displaced civilians, communicate the bleak reality of war.

Childhood is a concern across both Figures 3 and 4. Figure 3 counterposes the naïve and childish appeal of grand projects with the grim and adult reality of war. A colourful young boy with a teddy bear stands in a greyscale ruined town, as he 'Grow[s] up in the Murder Triangle', while the man mourning in Israel carries a baby on his front, shielding it from harm. All other subjects in the image are adults, showing adult forms of devastation and bereavement. The injured hand bearing a 'Workers Unite' coffee mug references what the artist positions as a tragic naïveté of another grand, progressive project: Cold War-era internationalist socialism. Both are characterized by a failure to understand – as an adult would – why sweeping visions to transform society are doomed to fail. This view is typical of what O'Donnell calls the 'liberal realist' critique of utopian thought, which emerged in opposition to the countercultural movement of the 1960s and highlighted the necessity for restraint, managerialism, and authority over the dangerous grandiosity of progressive visions.[76] Indeed, 'the use of the child to serve as a symbol of

74. Ray Acheson, 'Notes on Nuclear Weapons & Intersectionality in Theory and Practice' (Working Paper, Program on Science and Global Security, Princeton University, No. 6, 2022), 1–47; Ritchie, 'Irreversibility and Nuclear Disarmament'; Vaughan, 'Post-Nuclear Worldmaking and Counter-Hegemony'.
75. Kangas et al., 'Smashing Containers, Queering the International Through Collaging'.
76. Mike O'Donnell, 'Nineteen-Sixties Radicalism and Its Critics: Radical Utopians, Liberal Realists and Postmodern Sceptics', *Psychoanalysis, Culture & Society* 13 (2008): 250, https://doi.org/10.1057/pcs.2008.7; Marianna Papastephanou, 'Educational Utopianism Beyond the "Real Versus Blueprint" Dichotomy', *Studies in Philosophy and Education* 43, no. 6 (2024): 631–52, https://doi.org/10.1007/s11217-024-09951-6.

Figure 5. A convincing vision of a tragic non-nuclear future?

counter-cultures or utopias has often been a correlate of the use of the chiId as a symbol of dystopias'.[77] As such, the collages in Figures 3 and 4 point to the vulnerability of the child in war, at the same time rejecting as childish utopian visions of nuclear disarmament. Speaking to us from a chaotic and violent imagined post-nuclear future, the artist uses both aspects of the child image to make an urgent plea for maturity, moderation, and the preservation of order, again reproducing the nuclear exceptionalist themes discussed above.

Figure 5 similarly attempts to recover order from the inherent disorder and mess of the collage exercise, with the artist taking part in the activity but also choosing to subvert it. Instead of working with the random and unpredictable materials provided, this artist recreated a near-future *Daily Mail* (a real-life British tabloid newspaper) front page. This mock-up is then disassembled and stuck back together, mixed with real newsprint and images suggesting a Chinese invasion of Taiwan. The result incorporates elements of the collage style, but the artist retains control over the materials – usually relinquished when collaging. The message communicated is straightforward and literal, again positing a future world through a nuclear exceptionalist ontology, in which the geopolitical *status quo* and dominant security ideologies have remained static despite the absence of nuclear weapons, which has given way to war.

This example, which only partially accepts the logic of the collage medium, is chosen because it highlights the benefits of the exercise. The artist clings to narrative control here, in defiance of the scavenging, piecing-together, and (re)interpretation processes that the collaging activity usually demands. As such, the image tells a coherent story, not just through images but also long blocks of written text. In exchange for this control, however, the artist forgoes the space for ambiguity, ambivalence, and even outright contradiction that collaging affords. Rather than an exploration, the image functions as an essay that posits a specific, causal argument, which puts the onus on the participant and their artwork to defend a thesis in rationalist terms. This is impossible, however, because of the unresolvable tension between the 'sensible'[78] appeal to plausible, near-term strategic futures and the 'implausible' condition of immediate and complete nuclear disarmament that undergirds the piece. While it was not the artist's immediate intention, according to their interview, to do so, the collage showcases the artist's struggle with this incommensurability.

It can also be read as a struggle to reclaim (nuclear) order from potential chaos. The artist's rejection of the spontaneity of collage in service of control and predictability parallels warnings that efforts towards nuclear disarmament will lead to the collapse of a global nuclear order, which, while fragile and imperfect, delivers at least a degree of global stability.[79] These fears have been persistent, from Schelling's[80] predictions of

77. Ashis Nandy, 'Reconstructing Childhood: A Critique of the Ideology of Adulthood', *Alternatives* 10, no. 3 (1984): 372, https://doi.org/10.1177/030437548401000303.
78. Baspehlivan and Wedderburn, 'Disciplinary Seriousness in International Relations'.
79. Lawrence Freedman, 'Disarmament and Other Nuclear Norms', *The Washington Quarterly* 36, no. 2 (2013): 93–108, https://doi.org/10.1080/0163660X.2013.791085.
80. Thomas C. Schelling, 'The Role of Deterrence in Total Disarmament', *Foreign Affairs* 40, no. 3 (1962): 392–406, https://doi.org/10.2307/20029563.

spiralling conflict in a disarmed world to more recent warnings that the Treaty on the Prohibition of Nuclear Weapons (TPNW) threatens the fragile nuclear non-proliferation regime and will make the world more, not less, dangerous.[81] It is understandable that new students of nuclear politics fear such a loss of control. However, any sense of control over nuclear danger may be illusory.[82]

What happens to the scope of post-nuclear imagination if this lack of control is acknowledged and embraced? The second set of collages together takes a more ambivalent approach to futures without nuclear weapons, eschewing confident predictions and illusions of control.

Nuclear Ambivalence: Unstable Binaries, Cautious Speculation, and Anxious Hope

Alongside nuclear exceptionalism, nuclear ambivalence emerged as a recurring theme in students' collages, with some participants grappling with the tension between utopian promises of nuclear-free futures on one hand and the unknowable dangers of such futures on the other. Part of the reasoning behind this exercise was that the collage medium permits the disruption of binary divisions and the expression of ambivalence around the key questions of IR. Ambivalence is a foundational element of nuclear weapons discourse. The simultaneous 'military' and 'civilian' uses of nuclear technology mean that the discourse is characterized by an 'irreducible binary', and consequently, 'binaries always structure the expression of nuclear power'.[83] The overarching intellectual framework of IR theory is also structured by two binaries: 'the demarcation of inside/outside and a developmental sequence from tradition to modernity'.[84] It is therefore unsurprising that many such binary oppositions were evoked through this exercise: sometimes simply pointed out, but often deliberately blurred.

Figures 6 and 8 are the most explicit in positing a binary between a utopian and even fantastical post-nuclear future and the feared reality of chaos and war that, in these participants' views, might accompany it. Both images are split down the vertical plane, representing a stark binary choice between two scenarios. Moreover, both use (lack of) colour to mark this difference, with futures presented as desirable rendered in colour, and

81. Christopher Ford and George Perkovich, 'Briefing on Nuclear Ban Treaty by NSC Senior Director Christopher Ford', Carnegie Endowment for International Peace, 22 August 2017. Available at: https://carnegieendowment.org/2017/08/22/briefing-on-nuclear-ban-treaty-by-nsc-senior-director-christopher-ford-event-5675.
82. Richard Ned Lebow, 'Review Essay: The Nuclear Curse', *International Relations* 37, no. 1 (2023): 180–98, https://doi.org/10.1177/00471178221094726; Benoît Pelopidas and Kjølv Egeland, 'The False Promise of Nuclear Risk Reduction', *International Affairs* 100, no. 1 (2024): 345–60, https://doi.org/10.1093/ia/iiad290.
83. Itty Abraham, '"Who's Next?" Nuclear Ambivalence and the Contradictions of Non-Proliferation Policy', *Economic and Political Weekly* 45, no. 43 (2010): 52.
84. Maria Mälksoo, 'The Challenge of Liminality for International Relations Theory', *Review of International Studies* 38, no. 2 (2012): 493, https://doi.org/10.1017/S0260210511000829.

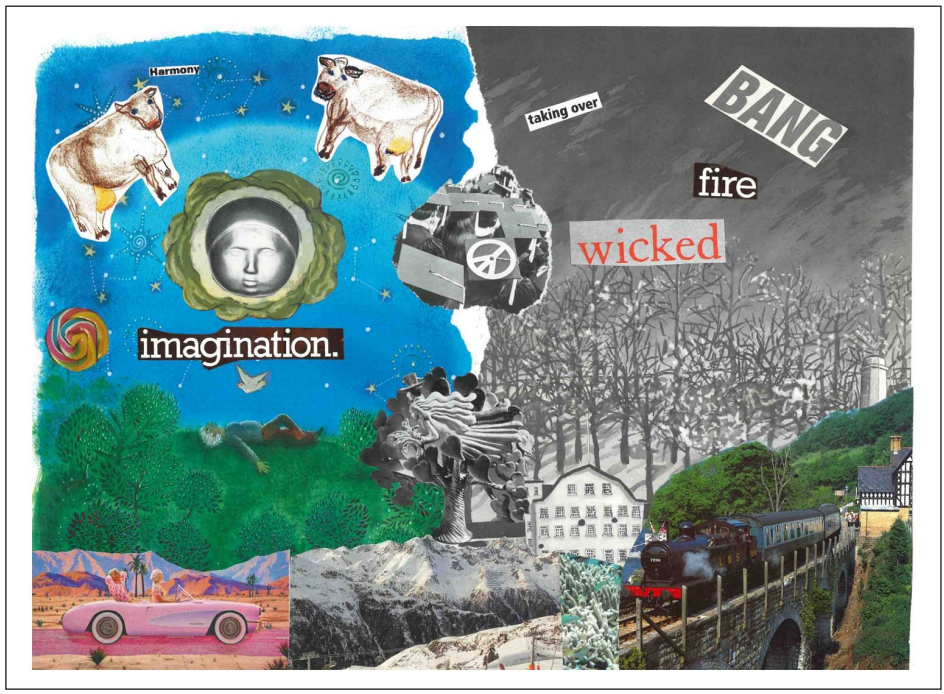

Figure 6. Two archetypal futures without nuclear weapons. The artist is uncertain as to which one is most plausible.

undesirable but perhaps 'realistic' futures represented largely in greyscale. Figure 6 makes a direct comparison between a nuclear weapons-free future and the whimsicality of children's nursery rhymes, with reference to the song *Hey Diddle Diddle*:

> So it's like the nursery rhyme idea of cows jumping over the moon. Sort of harmony, imagination. Quite childlike [. . .] This side's more imaginary. This side's more realistic [. . .] So it's more like as I've grown how realities have changed from my perspective.

The artist reflects on how their personal development and intellectual journey has made certain positive imaginaries of future worlds appear unrealistic and nonsensical. This is illustrated by the intertextuality with the nursery rhyme, an example of 'nonsense verse' in which 'the reader is tempted by the visualization of the scene, but still must ultimately deny its collective meaningfulness'.[85] While the syntax and grammar make the nursery rhyme technically comprehensible, the reader soon realizes that the scenario it describes is an impossible fantasy. This is an apt metaphor for the experience of the idealistic

85. Bridget Begg, 'Medieval Nonsense Verse: Contributions to the Literary Genre' (Wellesley, Mass: Wellesley University, 2013), 3, Honors Thesis Collection (88).

student who, upon entering the IR classroom, comes to accept the 'serious' conclusion that 'the timely transformation of the interstate system needed for cooperative global nuclear disarmament appears implausible in the extreme'.[86] The dichotomy between seriousness and frivolity in nuclear politics is also hinted at here by the presence of a still from the 2023 *Barbie* movie, which competed at the summer box office with *Oppenheimer*. Emily Faux discusses at length the politics of '*Barbenheimer* mashups' in online culture – the effect of which is to 'make the unimaginable easier to encounter, explore and play with' – [87]but in contrast, the artist here maintains a strict boundary between childlike playthings and nuclear annihilation. There is, however, one small nod to the potential of reclaiming some liminality between the utopian and dystopian visions, with an image of mortarboard-wearing students straddling the two halves of the collage, one of which has their headwear adorned with a peace symbol. This could be read as an expression of 'anxious hope'[88] that the next generation of graduates might use their education to bridge the divide between utopia and dystopia, towards a realizable nuclear peace. Alternatively, it might rather signify a graduating cohort torn between two evils: a catastrophic future and an unattainable one.

Figure 8 similarly posits a division between the idealistic post-nuclear fantasy and, for the artist, an anticipated violent reality. The intended meaning of this collage is unambiguous thanks to the heavy use of text snippets. Again, on the left, 'happy futurists' presented in full colour live rich, actualized lives, flourishing and growing old in conditions which facilitate 'safety', 'free speech', and 'ambition'. The artist here hints that the absence of nuclear weapons here has had effects that extend beyond the military-strategic realm, removing some constraints on people's ability to live their lives to the fullest. We are then told, however, that 'if something sounds too good to be true, it probably is' – evoking the pessimistic realist account of the international as a tragic and violent sphere. As such, on the right of the image, images of gravestones and personal anguish combine with words such as 'hate', 'anger', 'trafficking', 'slavery', and 'murder'. In this speculative future, postmodern conflict and threatening technological developments continue to exist in the absence of nuclear weapons. The 'too good to be true' statement suggests that the artist sees these two visions as mutually exclusive future trajectories, rather than coexisting elements of an imperfect post-nuclear world.

Figure 7 deals with ambivalence and bifurcation more ambiguously. The artist eschews the binary categorization of the future as seen in Figures 6 and 8, as both images of violence and pastoral peace are presented in a mix of colour and greyscale. Green textured fabric is used as backing. In the words of the artist:

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86. Keith B. Payne, 'Realism, Idealism, Deterrence, and Disarmament', *Strategic Studies Quarterly* 13, no. 3 (2019): 30.
87. Emily Faux, 'Deconstructing *Barbenheimer*: A Feminist Analysis of Gender and the Representation of Nuclear War', *Feminist Theory* 25, no. 4 (2024): 683, https://doi.org/10.1177/14647001241291706.
88. Bürge Abiral, 'Catastrophic Futures, Anxious Presents: Lifestyle Activism and Hope in the Permaculture Movement in Turkey' (Istanbul: Sabanci University, 2015).

Figure 7. A more abstract meditation on the possibilities of non-nuclear futures.

> I think people would turn to different sources of peace. I think people will start seeking out God and Jesus, but would that actually bring this true sense of peace? [. . .] I've got some green going on which is associated with peace, but I've cut them up to show that it could be fragmented peace. Same with the nature.

Through deliberate fragmentation and playing with shapes and textures, the artist also acknowledges their incomplete knowledge of the speculated future and their uncertainty of whether a post-nuclear world would be peaceful. As such, they eschew the confident predictions of the dominant realist school of thought that multilateral nuclear disarmament will destabilize the international system and bring about large-scale conflict.[89] The artist further expresses their ambivalence through the image of bisected people – a muscled bodybuilder, as well as the current king and queen of the United Kingdom, each torn down the middle. ('And then also I've got a man here who's quite, looks quite strong, but he's split in half. It's like, can we? Yeah. Can we cope? Like, we'll try'.)

89. Waltz, 'The Spread of Nuclear Weapons'; Susan B. Martin, 'The Continuing Value of Nuclear Weapons: A Structural Realist Analysis', *Contemporary Security Policy* 34, no. 1 (2013): 174–94, https://doi.org/10.1080/13523260.2013.771042; Halit Mustafa Emin Tagma, 'Realism at the Limits: Post-Cold War Realism and Nuclear Rollback', *Contemporary Security Policy* 31, no. 1 (2010): 165–88, https://doi.org/10.1080/13523261003665618.

Figure 8. Another divided world. How would the disappearance of nuclear weapons interact with other social and political ills?

Here, the artist suggests that the bisected strongman perhaps represents their own ambivalence about a future without nuclear weapons, sharing sentiments with Figures 6 and 8. The image also hints, perhaps, at a weakened superpower: a former nuclear-armed state deprived of its most powerful weapon, ambivalent and divided, having lost a constitutive element of its identity.[90] Figure 7 also makes extensive use of religious imagery – a theme that several other students touched upon in their collages, too. The artist suggests that the absence of nuclear weapons would prompt people to search for an alternative 'source of peace' in the form of religion, the protective umbrella of nuclear deterrence having been dismantled. This is in line with Lifton's famous explication of the 'secular ideology' of nuclearism, 'the passionate embrace of nuclear weapons as a solution to death anxiety and a way of restoring a lost sense of immortality'.[91] It also recalls Hymans' argument that nuclear weapons, through metaphor, have come to be understood as 'God', which removes the question of nuclear armament from the realms of policy deliberation and, as such, effectively blocks a state from seeing its way clear to nuclear renunciation'.[92] This artist's meditation on the spiritual or superstitious aspects of nuclear weapons policy calls into question the rationalist accounts of nuclear disarmament-induced dystopia depicted in other collages.

While several elements of conventional nuclear weapons policy have been critiqued as fantastical – the long-term durability of non-proliferation arrangements,[93] the

90. Anne Harrington de Santana, 'Nuclear Weapons as the Currency of Power: Deconstructing the Fetishism of Force', *Nonproliferation Review* 16, no. 3 (2009): 325–45, https://doi.org/10.1080/10736700903255029; Nick Ritchie, 'Relinquishing Nuclear Weapons: Identities, Networks and the British Bomb', *International Affairs* 86, no. 2 (2010): 465–87, https://doi.org/10.1111/j.1468-2346.2010.00892.x.
91. Robert Jay Lifton, 'Nuclearism', *Journal of Clinical Child Psychology* 9, no. 2 (1980): 119, https://doi.org/10.1080/15374418009532966.
92. Jacques E. C. Hymans, 'The Bomb as God: A Metaphor That Impedes Nuclear Disarmament', *Security Studies* 33, no. 1 (2024): 2, https://doi.org/10.1080/09636412.2023.2256655.
93. Harald Muller, 'The Future of Nuclear Weapons in an Interdependent World', *The Washington Quarterly* 31, no. 2 (2008): 63–75, https://doi.org/10.1162/wash.2008.31.2.63.

technocrat's ability to prevent nuclear accidents and escalation,[94] the masculine fantasy of abstract and 'clean' nuclear war – [95]it was the idea of a future without nuclear weapons that many participants found most unrealistic, as Figures 6 and 8 illustrate. What was striking, however, was the participants' explicit acknowledgement of the imaginative difficulties they experienced during the workshop. The artist behind Figure 8 expresses this frustration through the phrase 'a hard story to tell' and noted this in their interview: 'I've got loads of words like trafficking, torture, murder [and] it just shows, basically, how a world without nuclear weapons will not solve all of these problems'. When asked how the absence of nuclear weapons might affect these other forms of violence, the participant reiterated: 'I've been thinking [about] this question the whole time because I don't know [. . .] I don't have an answer for that'.

Figure 9 addresses these barriers to imagination. The images in the mind of the thinking statue figure are arranged to recall a nuclear explosion, a central red fireball giving way to a grey and blue mushroom cloud. The constituent images of this cloud represent, according to the artist, 'growth and [an] explosion in innovation and culture [. . .] hopefully it would be like that', referencing modern achievements in architecture, technology, and art. The artist invokes a sense that the presence of nuclear weapons in our present world is somehow constraining, since their absence would unleash a wave of pent-up creativity once we 'don't have to worry about' them any longer. The spectre of nuclear eternity still lurks in the background, however, in the form of a world still marked by militarism, competition, and conflict (represented by the tank, helicopter, and gunship emerging from this explosion of progress), which threatens to collapse back into the 'cyclical temporality' of nuclear rearmament at any moment.[96] Nevertheless, we can again discern anxious hope here: despite anxiety about the possibility of a curtailed or absent future, the artist dares to imagine better.

Finally, another binary that each of the above collages (and indeed all the collages produced in these workshops) dissolve is that between 'public' and 'expert', which is another structuring device of nuclear discourse: the divide between 'the elite cadre of scientists and technocrats that produce nuclear power who are bracketed off from society [. . .] and the masses who are excluded from this formation, but who are expected to remain its passive consumers'.[97] Collaging here allowed participants to disrupt this binary by injecting questions of mass politics and culture into the staid analysis of nuclear weapons policy. It also facilitates them to assert their own right to a say over the nuclear future as non-professional 'experts' in their own personal experiences, hopes, and fears.

94. Benoît Pelopidas, 'Power, Luck, and Scholarly Responsibility at the End of the World(s)', *International Theory* 12 (2020): 459–70, https://doi.org/10.1017/S1752971920000299.
95. Cohn, 'Sex and Death in the Rational World of Defense Intellectuals'.
96. Pelopidas, 'The Birth of Nuclear Eternity', 492.
97. Abraham, '"Who's Next?"', 53.

Figure 9. An explosion of creativity in a nuclear-free world - but what would the consequences be?

Figure 10. "Born to work" - so who has the luxury of time to think about nuclear weapons and existential politics?

Concluding Discussion: De-exceptionalizing Nuclear Weapons, Recollectivizing the Future

Finally, I present Figure 10 as a productive reflection on the exercise. This piece makes no explicit reference to abstract conceptions of IR, or to concrete representations of either military conflict or utopian peace. Instead, the artist is concerned with quotidian matters, represented by everyday lives rendered in dull greyscale. The central message – 'Born to Work' – combined with the visual contrast between the humdrum and the colourful abstract, makes the artist's by thoughts clear. Lofty questions as the overturning of the international order, hinted at the stained-glass image of a fallen monarch, are placed physically above the drab masses of those working for a wage; they are so far removed from daily concerns as to be irrelevant. The student artist reiterates this message in their interview:

> The reality is most people don't think about nuclear weapons on a daily basis. They're constrained from their nine-to-five and the appearance of nuclear weapons short of an actual war means literally nothing to them [. . .] They're concerned about their work, their kids, their lives, their families.

As such, this collage resurrects the public-expert binary but does not speak in favour of it. Instead, it offers a reminder of the pervasiveness of 'nuclear forgetting', a social process which, since the end of the Cold War has 'defus[ed] nuclear anxieties' and given nuclear weapons 'a sense of everyday legitimacy'.[98] It is a critical comment on how the pressures and precarity of the labour market reinforce this process of forgetting, constraining the ability of the non-expert public to intervene in the arcane and elite world of nuclear policymaking.

While it is not a new observation that popular alienation from politics and 'sham' democracy is a consequence of capitalist economic organization,[99] it is worth noting that British higher education students feel these alienating pressures in specific, differentiated ways that are relevant for educators. The experience of the COVID-19 pandemic, combined with the ongoing marketization of UK higher education, has increased students' feelings of economic and social precarity and tempered their expectations for the future.[100] Recent research finds that the graduate premium, the difference in average salaries between graduates and non-graduates, has been in steady decline for cohorts born in the early 1990s and afterward.[101] Each of these dynamics is sharpened for students who come from deprived or marginalized backgrounds. Sociologist Dan Evans argues that 'graduate[s] without a future' – downwardly mobile, financially squeezed, and 'proletarianized' into non-graduate jobs – form a growing electoral bloc that has nonetheless been abandoned by all major UK political parties.[102] In this context, it is unsurprising that many young British people have lost trust in democracy to deliver them a secure and satisfying future.[103] This has also prompted reflection on my part about whether students may find the unserious activity of collaging to be an inadequate response to their political and economic disenfranchisement while they are paying £9500 per year in tuition fees.

98. Marianne Hanson, 'Normalizing Zero Nuclear Weapons: The Humanitarian Road to the Prohibition Treaty', *Contemporary Security Policy* 39, no. 3 (2018): 466–7, https://doi.org/10.1080/13523260.2017.1421344.
99. David Harvey, 'Universal Alienation', *Journal for Cultural Research* 22, no. 2 (2018): 137–50, https://doi.org/10.1080/14797585.2018.1461350.
100. Caitlin Nunn et al., 'Precarious Hope: Situated Perspectives on the COVID-19 Pandemic from Undergraduate Students in Manchester, UK', *Journal of Applied Youth Studies* 4, no. 5 (2021): 429–44, https://doi.org/10.1007/s43151-021-00057-1.
101. Toby Whelton, 'The State of the Graduate Premium', Intergenerational Foundation, 17 January 2024. Available at: https://www.if.org.uk/2024/01/17/the-state-of-the-graduate-premium/; Gianna Boero et al., 'The College Wage Premium in the UK: Decline and Fall?', *Oxford Economic Papers* 77, no. 1 (2025): 1–18, https://doi.org/10.1093/oep/gpae014.
102. Dan Evans, 'Forget the "Red Wall": The "Graduate Without a Future" Is the Voter Politicians Need to Woo', *The Guardian*, 6 January 2025. Available at: https://www.theguardian.com/commentisfree/2025/jan/06/graduate-without-future-politics-uk.
103. Channel 4, 'Gen Z: Trends, Truth and Trust', January 2025. Available at: https://assets-corporate.channel4.com/_flysystem/s3/2025-01/Gen%20Z%20Trends%20Truth%20and%20Trust_0.pdf.

Figure 10 emphasizes the sense of resigned disempowerment in the face of nuclear danger that emerged from many of the collages. Students not only feel disenfranchised by the anti-democratic nature of nuclear weapons, but by the political and economic conditions in which they learn and work. In this context, the availability of cultural resources to imagine alternative futures is doubly constrained, first by a socioeconomic context in which young people believe that no better future is possible. Second, however, to the extent that hope for the future exists, it is privatized – conditioned by neoliberal accounts of the purpose of higher education which emphasize the aforementioned graduate premium, career advancement, and socioeconomic status. This 'individualistic and entrepreneurial' cultural understanding of education feeds 'a cultural mood directing people away from collective expressions of desires'.[104] Imaginaries of nuclear-disarmed futures are visions of collective goods. Unless hope is recollectivized, such visions will remain difficult to imagine, meaning in turn that there exists no common basis for political action directed at achieving a better world.

It was also concerning from this perspective that none of the art pieces surveyed dealt with climate change. Research is beginning to chart the potential interactions between nuclear danger and climate change that might plausibly condition the future possibilities available to us,[105] but also highlight that these interactions are not paid sufficient attention to. Given that any iteration of the nuclear future will necessarily be a climate-changed one, and the overshoot of planetary boundaries presents tomorrow's graduates with an additional set of future catastrophes to collectively contend with, 'worldmaking' exercises inspired by this project might usefully seek to 'un-silo' the climate and nuclear dimensions of imagined futures.

University teaching alone cannot break down these barriers. Creative and critically oriented pedagogies, however, can assist students in producing and sharing cultural resources, such as artwork, that might contribute to new imaginaries of the future, which are necessary, in turn, to undergird political contestation. Pedagogical tools like collage can help to recollectivize students' hopes and fears about (non-)nuclear futures by deconstructing nuclear exceptionalism. Teaching the global politics of nuclear weapons should incorporate approaches that engage students' everyday concerns, experiences, and worries. This enables students to draw connections between their experienced disenfranchisement from global nuclear politics and the wider social forces that constrain them from engaging in exercises of collective imagination and politics. This denaturalizes

104. T. Eskelinen et al., 'The Privatization and Recollectivization of Hope', in *The Revival of Political Imagination : Utopia as Methodology*, ed. T. Eskelinen (Zed Books, 2020); London: 37-54. see also Henry A Giroux, 'Educated Hope in an Age of Privatized Visions', *Cultural Studies? Critical Methodologies* 2, no. 1 (2002): 93–112, https://doi.org/10.1080/108556032000074968; Papastephanou, 'Educational Utopianism Beyond the "Real Versus Blueprint" Dichotomy'.

105. Kjølv Egeland, 'Disentangling the Nexus of Nuclear Weapons and Climate Change – A Research Agenda', *International Studies Review* 27, no. 1 (2025): 1–25, https://doi.org/10.1093/isr/viaf003; Sterre van Buuren, Thomas Fraise and Benoît Pelopidas, 'Existential Silos: The Compartmentalization of the Futures of Environmental Change and the Nuclear Threat', *Futures* 173 (2025): 103671, https://doi.org/10.1016/j.futures.2025.103671.

nuclear politics as the sole preserve of an accountable, technocratic elite. While this article demonstrates that individual teaching interventions are unlikely to have immediate transformative effects on students' imagination of the future, it has also illuminated some of the barriers to imagination that teaching of nuclear politics needs to address, through activities targeted at nuclear exceptionalism (see also the activities provided by the Highly NRiched collective).[106]

Research also demonstrates that students remain receptive to the idea that the higher education classroom can be a setting for developing utopian ethics and visions in a practical and collective mode. Eringfeld's study on students' post-pandemic hopes for education at Cambridge University highlights 'the hope that universities will come to embrace [. . .] increased engagement with community-based and experience-based learning, physical activities and more practical forms of learning'.[107] Teaching activities that emphasize the social, practical, embodied, and everyday aspects of nuclear politics help to advance this objective. They can help to recover a social and utopian ethic in the IR classroom and offer a corrective to the mainstream politics of liberal anti-utopianism, which props up nuclear eternity, positing a dismal binary choice between the continuation of the *status quo* and 'incriminatory' utopian visions which collapse into an authoritarian dystopia.[108]

Although the exercise detailed here is a pedagogical one, the project of post-nuclear worldmaking must extend beyond the university classroom if it is to take root politically. University IR educators are well-positioned to contribute to a wider counter-hegemonic project of nuclear politics through their teaching, but researchers should also look to develop and iterate on these practices as part of a more expansive worldmaking agenda. If, as Ritchie argues, part of this project is to connect anti-nuclear politics to intersecting struggles for justice,[109] then a (re)collectivization of political subjectivities is necessary for it to take root. Future-facing, creative exercises like this could be carried out or exhibited at, for example, TPNW side events, among anti-nuclear activists, or in local communities that live near nuclear weapons infrastructure. They are also applicable to the full gamut of existential planetary threats, beyond nuclear weapons. The fact that securitizing actors are now engaging in generative worldmaking activities – [110] albeit ones which invoke and build towards 'dismal and limited' future worlds – [111] demonstrates

106. Highly NRiched, 'Educational Resources', n.d. Available at: https://highlynriched.com/educational-resources/.
107. Simone Eringfeld, 'Higher Education and Its Post-Coronial Future: Utopian Hopes and Dystopian Fears at Cambridge University During Covid-19', *Studies in Higher Education* 46, no. 1 (2021): 154, https://doi.org/10.1080/03075079.2020.1859681.
108. Papastephanou, 'Educational Utopianism Beyond the "Real Versus Blueprint" Dichotomy'.
109. Ritchie, 'A Contestation of Nuclear Ontologies'.
110. NATO, 'NATO 2099', 2024. Available at: https://www.ndc.nato.int/nato2099/read.php; cf. Eric Sangar, 'How Military Forecasting Projects Can Promote Exceptionalist Militarism: The French Red Team Project and the Securitization of the Future', *Security Dialogue* 56, no. 3 (2025): 191–210, https://doi.org/10.1177/09670106241306556.
111. Cullum, 'Making a World of Climate Insecurity', 1.

that imagining global security futures has become a battleground. Despite the catastrophic context in which we teach and research, the battle to imagine and make better future worlds is only just beginning. As the ambivalent results of this exercise demonstrate, fighting this battle is not simply a case of drawing out pre-formed imaginaries of better futures. Instead, it will be a matter of building these imaginaries from the scraps we have at hand, as a collective process, with all the messiness that entails.

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The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

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