

Institution: Kingston University		
Unit of Assessment: 19 – Politics and International Studies		
Title of case study: Nuclear Cultural Heritage: From Knowledge to Practice		
Period when the underpinning research was undertaken: 2013 – 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name: Egle Rindzeviciute	Role: Associate Professor	Period employed by submitting HEI: Sept 2015 - present
Period when the claimed impact occurred: 2016 – 2020		
Is this case study continued from a case study submitted in 2014? N		

1. Summary of the impact

Rindzeviciute's research into nuclear cultural heritage has fostered increased collaboration between the nuclear and cultural heritage sectors. This has resulted in better documentation, collection, and exhibition of material heritage in the process of nuclear decommissioning in the UK and internationally. In Lithuania, it has increased public visibility of nuclear history and led to the local planning and development of a new museum. In the UK, it has directly impacted the Nuclear Decommissioning Authority's heritage guidance by informing its guidelines for safeguarding the UK's civil nuclear cultural heritage. A further impact of Rindzeviciute's work has been its ability to inform new creative interpretations of the politics of techno-infrastructures, for example at the Venice Biennale (2016, 2018) and in London (2018, 2020), leading to new audiences and increased media awareness.

2. Underpinning research

Despite Cold War tensions, Western and Soviet governments engaged in knowledge transfer and collaboration in managing global and international problems through specially established international organisations, such as the International Institute of Applied Systems Analysis (IIASA) in Austria. IIASA was a transnational expert community which advanced scientific collaboration in the fields that are relevant to public policy and developed new knowledge infrastructures for global governance. Rindzeviciute's earlier research into the history of the IIASA revealed the importance of science and technology to facilitate international links in the context of adverse political relations [R1], tracing and analysing central shifts in global governance [R2].

The study of policy sciences developed at the IIASA offered an insight into the intellectual history of international relations through the interdisciplinary examination of environmental history, international organization, and studies of science and technology [R1]. Although the Cold War has ended, the lessons from this experience can be extended to improve the interface between scientists, governments and the public. This is particularly relevant for the nuclear industry, where the articulation of the nuclear past tends to be highly politicised and public engagement outside corporate governance of nuclear utilities tends to be limited [R3, R4, R5, R6].

Rindzeviciute applied her previous research towards the concept of nuclear cultural heritage. A study of nuclear heritage offers a means to reinterpret the politics of the past, equip nuclear nations with understanding for present challenges and, in this way, is the foundation for the future of the nuclear energy industry. Rindzeviciute carried a study of nuclear expositions and archives at sites in Moscow, Obninsk, Murmansk and St Petersburg, where she also conducted semi-structured qualitative interviews with representatives of Rosatom - the Russian state nuclear energy corporation, the UK's Nuclear Decommissioning Authority (NDA) and other expert groups [R5]. The findings of the research included the importance of (i) nuclear cultural heritage as a new category of research, (ii) the high potential for nuclear cultural heritage to make the nuclear decommissioning process more robust by informing policies and practices of documentation and archiving, and (iii) the significance of nuclear cultural heritage-making for the strengthening of social cohesion through cultural and collection practices.

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There is a perception of a democratic deficit in the nuclear industry as it is a highly secretive and securitised sector [R6]. Rindzeviciute's research revealed a strong potential for institutional innovation and deeper social participation through the creation of localised and international nuclear cultural heritage. There was also the potential to contribute new heritage categories that would inform the documentation of decommissioning process, thus making it more robust [R3, R4, R5].

This local heritage is relevant for countries once annexed by the Soviet Union, such as Lithuania [R4, R6]; knowledge of which can assist learning about how to cope with the social and political complexities of their Soviet nuclear legacy. The making of nuclear cultural heritage takes place through interaction among four types of actors: the nuclear industry, academics, professional cultural sector, and local communities. However, the links between these different players need to be strengthened, particularly regarding international collaboration and knowledge exchange. Just as in the Cold War, a transnational expert group is needed to preserve and interpret nuclear history.

A networking project (2018-2020), led by Rindzeviciute, has made important progress addressing this need. The network titled 'Nuclear Cultural Heritage: From Knowledge to Practice', is funded by the AHRC (AH/S001301/1), and establishes links between the heritage and nuclear sectors. Three workshops (January, March and September 2019) brought, for the first time, experts from the Rosatom heritage organisations to the UK and gathered an international and interdisciplinary group of leading experts to develop the concept of nuclear cultural heritage. The interim result is a Position Paper on Nuclear Cultural Heritage (November 2019) [R5].

3. References to the research

R1 – Egle Rindzeviciute, *The Power of Systems: How Policy Sciences Opened Up the Cold War World*. Ithaca, NY: Cornell University Press, 2016. Peer reviewed monograph. DOI: [10.1017/slr.2018.361](https://doi.org/10.1017/slr.2018.361) REF2ID: 17-86-1970

Reviewed in *American Historical Review* (2018), *Isis* (2018), *Serendipities* (2018), *Baltic Worlds* (2018), *Lithuanian Historical Review* (2019), *H-Diplo Discussion Forum* (2019), *Slavic Review* (2019), *Cahiers du monde Russe* (2019).

R2 – Egle Rindzeviciute, "Soviet Policy Sciences and Earth System Governmentality," *Modern Intellectual History* 17, no.1 (2020): 179-208. DOI: [10.1017/S1479244318000161](https://doi.org/10.1017/S1479244318000161) REF2ID: 17-88-1971

R3 – Egle Rindzeviciute, Anna Storm, Fredrik Krohn Andersson. "Urban Nuclear Reactors and the Security Theatre: The Making of Atomic Heritage in Chicago, Moscow and Stockholm," in Heike Oevermann and Eszter Gantner, eds. *Securing Urban Heritage: Agents, Access and Securitization*, 111-129. London and New York: Routledge, 2019. DOI: [10.4324/9780429053559](https://doi.org/10.4324/9780429053559)

R4 – Egle Rindzeviciute, [Assembling a Nuclear Lithuania](#).

An essay, which was published as a hand-out, accompanying the exhibit "Assembling a Nuclear Lithuania." This exhibit was co-produced by Rindzeviciute and Jonas Zukauskas. Exhibited at *The Baltic Material Assemblies: Geologies and Infrastructures*, curated by Jurga Daubaraite and Jonas Zukauskas, at the Royal Institute of British Architects (RIBA) and the Architectural Association (AA), London, UK, 1-25 March 2018.

R5 – Egle Rindzeviciute et al. [Nuclear Cultural Heritage: A Position Paper](#) (Thurso, 2019).

R6 – Egle Rindzeviciute, Paul Josephson, Tatiana Kasperski, Andrei Stsiapanau, "[Splitting the Atom, Creating Trust](#)" *Echo Gone Wrong*, an online international contemporary art daily (28 September 2020).

Key Grant

'Nuclear Cultural Heritage: From Knowledge to Practice' awarded to Dr Egle Rindzeviciute (P.I.) by AHRC, Oct 2018 - Dec 2021, for GBP36,200. Reference: AH/S001301/1

4. Details of the impact

Rindzeviciute's research into nuclear cultural heritage has improved the identification and preservation of heritage in the process of nuclear decommissioning and has informed creative practice and cultural diplomacy around nuclear power. Through new forms of engagement and sustained practices, an international research network has benefitted heritage experts and the nuclear industry in the UK, Lithuania, and Russia, as well as curators and artists throughout Europe. The AHRC network published a joint position paper on "nuclear cultural heritage" in November 2019. It is the first document to define and describe "nuclear cultural heritage". This provides important practical guidance for attributing preservation value to documents and material objects in the nuclear sites that are undergoing decommissioning [R5, S1]. The network's expertise has guided heritage practitioners in their collection and exhibition practice.

Improving understanding of nuclear cultural heritage in the nuclear sector

In 2017, Rindzeviciute gathered a group of leading heritage experts at the Dana Research Centre, Science Museum, London, where it was decided that there was an urgent need to establish an international network to map and assess "nuclear cultural heritage." The network, funded by the AHRC and established in October 2018, grew to include over 40 members: representing such organisations as the Nuclear Energy Agency, Nuclear Decommissioning Authority (NDA), Science Museum, National Museum of Scotland, Deutsches Museum, and Rosatom. In 2019, for the first time, a range of different stakeholder organisations came together to explore the idea of nuclear cultural heritage, through a series of three workshops.

One outcome of the workshops was increased public visibility and cultural attention for the Ignalina nuclear power plant (INPP) currently being decommissioned in Visaginas, Lithuania. The Cultural Manager in Visaginas attended the first workshop, commenting that it, *'introduced me to the concept of nuclear cultural heritage'* [S2]. An article summarising her experience with the network was shared by the (successful) mayoral candidate *'to express his willingness to develop a museum'* [S2] for the history of Visaginas and the INPP. As Visaginas' Cultural Manager notes, *'This political step was important, because it made it clear that the future of nuclear heritage was seen as something where political decisions should be made'* [S2]. A working group has been set up to ensure the museum contains intangible, cultural heritage pertaining to the nuclear past – an idea not considered before the workshop. The Cultural Manager goes on to say that Rindzeviciute's work *'raised the awareness of nuclear cultural heritage being placed on the agenda in different countries and authoritative organisations, which was an important reason for the administration to include it in the strategy for the development of the museum'* [S2]. In addition, public engagement events, such as a competition for ideas to memorialise the INPP and a presentation to former INPP-workers, have been successfully developed and completed [S2].

In the UK, Rindzeviciute's work led to important impact with the NDA. The NDA is the public body responsible for safe nuclear decommissioning across 17 UK sites. In a letter [S3], the NDA National Programme Manager commented that Rindzeviciute's research *'has had a direct impact on the overall approach for the NDA's initiative'*. The letter continues to highlight the importance of the research project and collaborations to the history of the civil nuclear industry, noting that *'the history of the civil nuclear industry is being researched and recorded over the next few years and all aspects of intangible cultural heritage are now included in the scope of the task'*; previously the focus was only on physical, tangible assets. The NDA found the project *'very timely'* because it informed the development of the NDA "Guidelines for safeguarding the UK civil nuclear cultural heritage", which now includes *'reference to examples such as societal impact, oral history and the arts'*. The research *'will assist the NDA*

with the identification of intangible cultural heritage' at sites including Sellafield and Dounreay, allowing comprehensive appraisal, curation and understanding of heritage. As the letter points out, *'This gives strong potential for attracting diverse audiences'* [S3].

Informing curative practice and cultural diplomacy with new interpretations of nuclear heritage

Rindzeviciute's research informed creative practitioners with new interpretations of the local and international meanings of the nuclear history and future. For the first time since the end of the Cold War, the themes of infrastructure and nuclear power were included in high-profile artistic events to mark the centenary of national independence in the Baltic states. A series of art projects were commissioned for influential art venues, including the Venice Biennial of Architecture and the Architectural Association in London.

Rindzeviciute's research inspired the strategy of the curators (Jurga Daubaraite and Jonas Zukauskas) for the Baltic Pavilion in 2016: an exhibition analysing the infrastructure of the Baltic States. They [S5] describe how her research was *'central to our projects and spatial practice'*, by *'helping to articulate specific topics concerned with agency of infrastructure and in particular nuclear histories'*. In London, in 2018, they and Rindzeviciute co-designed an exhibit entitled Assembling a Nuclear Lithuania, which was showed at The Baltic Material Assemblies, the first exhibition to open at both the Royal Institute of British Architects and the Architectural Association, London [R4, S4]. Discussing the importance of Rindzeviciute's research to their curatorial practice, the curators note that she *'is the most prominent expert of long-term relation between society, politics and infrastructure space'* [S5].

The curator [S7] at the Venice Biennale in 2018 explains how Rindzeviciute was invited and then contributed to the organisation of the Lithuanian Pavilion. Rindzeviciute's essay The Swamp Modernity [S6] *'informed the core of the Pavilion's interactive activities' and was included in 'The Swamp School Manual' – a pedagogical tool reaching 'over 200 designers, scholars and researchers' and which supported 'new frameworks for sensorial approaches to environmental crises'* [S6]. The Manual has led to the publishing of a book and a new academic programme at MIT. The curator, also a professor at MIT, underlined the importance of Rindzeviciute's research to the programme, saying her *'research into nuclear cultural heritage as an intersection of technical, cultural and environmental governance, has been crucial for us as it provides as a toolkit to grapple with the deep-time architecture'* [S7].

As a result of these activities and initiated by Rindzeviciute's network, a contemporary art exhibition Splitting the Atom was curated at the Contemporary Art Centre (CAC) in Vilnius, during Autumn 2020 [S8]. Funded by the Lithuanian Culture Council, it presented work by 41 artists from the UK, Lithuania, and other countries. Rindzeviciute also contributed an installation "Archive/Simulator": a live-stream of a simulator of a reactor control panel in Visaginas, and an essay about the cultural heritage value of this simulator [R6, S8]. Several art works focused on the INPP, leading to an important form of visibility for Visaginas [S2]. Despite COVID-19 pandemic restrictions, 6,037 visitors attended the exhibition – which is in line with exhibition cycle averages, and over a third of the town's 18,024 population. Deepening visitors' understanding, CAC organised an onsite educational programme with 28 participants and delivered 12 guided tours of the exhibition with a total of 290 participants [S9].

The cultural heritage aspect of nuclear power and the related theme of the politics of techno-infrastructure were included in the programme of Lithuania's cultural diplomacy. The Lithuanian Cultural Attaché describes how, seeing the *'huge value'* in public projects that bring together researchers and the wider culture field, the Lithuanian Embassy changed their thematic agenda for cultural diplomacy [S10]. They now pursue interdisciplinary projects and thus offer *'a new way for the public learning about new topics and framing new discourses'*, meeting the need for a wider heritage umbrella in cultural diplomacy. The Lithuanian Embassy co-curated a webinar *(Re)Placing Chernobyl* with Rindzeviciute and others. It was streamed live by the Royal Institute

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of Technology, Stockholm, and the MIT, US. Two hundred and forty unique users watched the webinar live and engaged in discussion; total views are 640. Speakers included Simon Evans, the director of the Chernobyl Shelter Project, Johan Renck, director of miniseries HBO *Chernobyl*, as well as artists, historians, and nuclear scientists [S9]. The Lithuanian Cultural Attaché summarised the importance of Rindzeviciute's research, commenting that:

'I see huge value in the continuation of such approach of merging the cultural and scientific fields, as these kind of hybrid events enable us to respond to the need to speak "science through culture" and exercise the timely approach in providing and stimulating discussions that are crucial for understanding the scientific theories behind the wellbeing of humanity and planet'. [S10]

5. Sources to corroborate the impact

- S1 – Egle Rindzeviciute et al, [Nuclear Cultural Heritage: A Position Paper](#) (Thurso, 2019)
- S2 – Testimonial from the Cultural Manager in Visaginas, Lithuania
- S3 – Testimonial from the Nuclear Decommissioning Authority, UK
- S4 – [Review of The Baltic Material Assemblies Exhibition, UK](#)
- S5 – Testimonial from the Curators of the 2016 Baltic Pavilion, Italy
- S6 – "The Swamp Modernity" [Swamps and New Imagination](#). Berlin: Sternberg Press
- S7 – Testimonial from the Curator at the 2018 Venice Biennale
- S8 – [Splitting the Atom](#) Exhibition website
- S9 – Email from the Contemporary Art Centre confirming visitor numbers
- S10 – Testimonial from the former Cultural Attaché to the Lithuanian Embassy in the UK