

## Call for Papers

Tests in the Desert? Towards a Comparative and Transnational History of Nuclear Test Sites

International Conference, Paris, 19-21 January 2022

(CRESAT, MSHP, INALCO)

### Argument: Deserts, Steppes and Oceans: The Social Construction of Emptiness

The research group “*Écrire l’histoire du Centre d’Expérimentation du Pacifique (CEP)*” [Writing the History of the CEP (French nuclear test site in French Polynesia)] has, since 2019, held a series of seminars under the heading “For a transnational and comparative history of nuclear sites and tests” (MSH-Pacifique-CRESAT-INALCO). In these seminars the group, comprised of some fifteen researchers from various disciplines - history, art history, geography, sociology, literary studies and anthropology - has examined the sharing and transfer of experiences in relation to the tests among decision-makers, activists and indeed all those involved directly or indirectly in a regime of nuclearity which may be defined as the consciousness of being a participant in the life of a nuclear site and its facilities.

As a result of the seminars and the contacts established between presenters and public, both from France and abroad, we became keen not only to communicate the fruits of our research on the CEP but also to relate this to comparable situations elsewhere. This has led us to organise an international conference on nuclear testing sites worldwide, with regard to the physical space of sites, the politics involved and the environment. The conference aims to examine the reasons behind the choice of sites, the construction and operation of the facilities, the various actors and their interrelationships, and the legacies of locations perceived as being on the fringes, in deserts, steppes, and oceans, but which occupy a central place in the memories of the respective human societies, yet about which there is still little documentation.

### An overview of the history of nuclear testing sites

There has been a difference between the approach of scholars in France and their counterparts in the English-speaking world. The former have studied relations between the nuclear infrastructures and their environment, mainly focusing on civil nuclear programmes, while the latter have largely been interested in the use of the atom for military purposes. English-language scholarship has substantially documented the imperial and postcolonial dimensions of the subject, involving populations ranging from Amerindians in the west of the

United States of America<sup>1</sup> to the peoples of Alaska<sup>2</sup> and the Pacific<sup>3</sup>. Indeed, the notion of nuclear colonialism has been a familiar one to the American academic community since the 1980s<sup>4</sup>.

Major contributions to the topic have explored interactions with the respective locations with respect to risks, radioactivity and environmental pollution<sup>5</sup>. Several disciplines, taking an interest in the stages prior to the implementation of military programmes, both in terms of conception and the production of nuclear weapons<sup>6</sup>, have looked into the material nature of various sites<sup>7</sup> and their legacies<sup>8</sup>. The work of Kate Brown and Joseph Masco has carefully documented the lifestyles of those living within these military, scientific and industrial enclaves, as well as the cultural legacies for the communities involved. While some studies have already considered these issues with respect to US, Soviet and British nuclear testing sites, such work has yet to be produced in the case of France, China or other more recent nuclear powers or those underway<sup>9</sup>.

More fundamentally, the research carried out thus far has left a certain number of areas untouched with respect to the environmental and spatial dimensions of the test sites. These works, whether they deal with sites before or after the production of nuclear weapons, have largely been in the form of monographs, which do not enable *comparisons* between different military nuclear programmes and even less to take account of the *circulation* of actors, practices, knowledge and objects between these various sites, whether this involves secret, unauthorised transfers (espionage, counter-espionage), collaborations (informal, clandestine) or politically assumed cooperation, or shared cultures creating transnational communities of nuclear physicists, engineers, military personnel, activists and indeed local residents.

The question of what is to become of the test sites and their legacy has been considered via the anticipated end of testing, especially in the context of non-proliferation, moratoria and treaty bans<sup>10</sup>, which has

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<sup>1</sup> Danielle Endres, “The Rhetoric of Nuclear Colonialism: Rhetorical Exclusion of American Indian Arguments in the Yucca Mountain Nuclear Waste Siting Decision,” *Communication and Critical/Cultural Studies*, 6 (2009), 39-60.

<sup>2</sup> Nelta Edwards, “Nuclear Colonialism and the Social Construction of Landscape in Alaska”, *Environmental Justice*, vol. 4, n° 2 (2011), 109–114.

<sup>3</sup> Holly Barker, *Bravo for the Marshallese: Regaining Control in a Post-Nuclear, Post-Colonial World*, Belmont, Wadsworth/Thompson, 2012. Nic Maclellan, *Grappling with the Bomb. Britain’s Pacific H-Bomb Tests*, Canberra, ANU Press, 2017. Laurent Dousset, *Mythes, missiles et cannibales : le récit d’un premier contact en Australie*, Paris, Société des Océanistes, 2011.

<sup>4</sup> Winona LaDuke and Ward Churchill, “Native America: The Political Economy of Radioactive Colonialism”, *The Journal of Ethnic Studies*, vol. 13, n°3 (1985), 107-132.

<sup>5</sup> *Linking Legacies: Connecting the Cold War Nuclear Weapons Production Processes to Their Environmental Consequences* (U.S. Department of Energy, Office of Environmental Management, 1997); Tatiana Kasperski, “From Legacy to Heritage. The Changing Political and Symbolic Status of Military Nuclear Waste in Russia”, *Cahiers Du Monde Russe. Russie - Empire russe - Union Soviétique et États Indépendants*, vol. 60, n°2-3 (2019), 517–38; Michele Stenehjem Gerber, *On the Home Front: The Cold War Legacy of the Hanford Nuclear Site*, Lincoln, University of Nebraska Press, 2007.

<sup>6</sup> Hugh Gusterson, *People of the bomb: Portraits of America’s Nuclear Complex*, University of Minnesota Press, 2004. Lindsay Freeman, *The Atom Bomb in Me*, Stanford University Press, 2019.

<sup>7</sup> Kate Brown, *Plutopia: Nuclear Families, Atomic Cities, and the Great Soviet and American Plutonium Disasters*, Oxford, Oxford University Press, 2015.

<sup>8</sup> Joseph Masco, *The Nuclear Borderlands: The Manhattan Project in Post-Cold War New Mexico*, Princeton, Princeton University Press, 2020; Bryan C. Taylor, William J. Kinsella, Stephen P. Depoe and Maribeth S Metzler, *Nuclear Legacies: Communication, Controversy, and the U.S. Nuclear Weapons Complex*, Lexington Books, 2007. Bryan C. Taylor, Brian Freer, “Containing the nuclear past: The politics of history and heritage at the Hanford Plutonium Works”, *Journal of Organizational Change Management*, vol. 15, n°6(2002), 563-588.

<sup>9</sup> Becky Alexis-Martin, Matthew Breay Bolton, Dimity Hawkins, Sydney Tisch, Talei Luscía Mangioni, “Addressing the Humanitarian and Environmental Consequences of Atmospheric Nuclear Weapon Tests: A Case Study of UK and US Test Programs at Kiritimati (Christmas) and Malden Islands, Republic of Kiribati”, *Glob Policy*, January 2021.

<sup>10</sup> Georges-Henri Soutou, *La guerre de Cinquante Ans – Les relations Est-Ouest (1943-1990)*, Paris, Fayard, 2001; Bozo Frédéric, *Miterranad, la fin de la guerre froide et l’unification allemande. De Yalta à Maastricht*, Paris, Odile Jacob, 2005.

encouraged the implementation of simulation techniques<sup>11</sup>. Aside from these global concerns, there are questions relating to strategy and techno science: what remains once the test sites are dismantled, what of development centred on the construction of an industrial infrastructure, and all the socio-economic practices to which this gives rise in traditional societies, such as the introduction of a salaried workforce and a consumer model, the brutal break-up of a material culture and traditional belief systems?

Similarly, there has been very little research carried out into the ways in which sites have been reappropriated. The first thing that deserves examination in this regard is the transformation of former test sites into tourist sites. Who are the tourists who come to New Mexico in search of an encounter with the bomb? How, locally, are the legacies of the sites turned into elements of American heritage in order to satisfy visitors looking for patriotic stories about the Cold War or History buffs come to have their photo taken in front of the Trinity Site Obelisk? Another element needing to be studied is the subsequent heritage interest of the test sites on Bikini, where the wrecks of the ships used as test targets during Operation *Crossroads* in July 1946 lying at the bottom of the lagoon came to attract divers in the early 1990s. Such practices and reinvestments in locations—sometimes grouped under the banner of “dark tourism”—warrant analysis, given how they can reveal new economies of “nuclearity” and new relations to these locations.

Environmental history, for its part, has focused on nuclear energy for civil purposes, in line with a political approach centred around environmentalist movements, or one that leads to a consideration of the production of energy involving various kinds of pollution. It is this latter element which enables us to make the link to the military’s use of nuclear energy, a topic which is often mentioned but rarely explored in any depth<sup>12</sup>, some notable exceptions aside, such as the works of John Findlay, Michele Stenehjem Gerber<sup>13</sup> and Shanon Cram<sup>14</sup>, who have pointed to the environmental legacies of these programmes<sup>15</sup>. Finally, a wide-ranging literature drawing on postcolonial studies has highlighted the particular burden borne by indigenous communities living on land requisitioned by the atomic programmes in New Mexico and Alaska<sup>16</sup>.

The issue of the extraction of uranium and the damage caused by blasts, nuclear waste and radioactive fallout, is mentioned in several regional and global accounts<sup>17</sup>. In environmental historiography this issue can be related to subaltern and postcolonial studies, as it brings to the fore the vulnerability of minorities in the test

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<sup>11</sup> Dominique Mongin, *Dissuasion et Simulation. De la fin des essais nucléaires français au programme Simulation*, Paris, Odile Jacob, 2018.

<sup>12</sup> Toshihiro Higuchi, *Political Fallout: Nuclear Weapons Testing and the Making of a Global Environmental Crisis*, Stanford, Stanford University Press, 2020.

<sup>13</sup> Michele Gerber, *On the Home Front*, *op. cit.*

<sup>14</sup> Shanon Cram, “Wild and Scenic Wasteland: Conservation Politics in the Nuclear Wilderness”, *Environmental Humanities*, vol. 7, n°1(2016) 89-105.

<sup>15</sup> John M. Findlay and Bruce Hevly (ed.), *The Atomic West*, Seattle, University of Washington Press, 1998.

<sup>16</sup> Danielle Endres, “The Rhetoric of Nuclear Colonialism: Rhetorical Exclusion of American Indian Arguments in the Yucca Mountain Nuclear Waste Siting Decision”, *Communication and Critical/Cultural Studies*, vol. 6, n°1, 2009, 39-60; Edwards, “Nuclear Colonialism and the Social Construction of Landscape in Alaska”, *art. cit.*

<sup>17</sup> John Robert McNeill, *Something New Under the Sun: An Environmental History of the Twentieth-Century World*, New York: W.W. Norton & Co., 2001, p. 315-317; Mark D Merlin, Ricardo M. Gonzalez, “Environmental Impacts of Nuclear Testing in Remote Oceania, 1946–1996”, in J. R. McNeill and Corinna R. Unger (ed.), *Environmental Histories of the Cold War*, Cambridge, Cambridge University Press, 2010, 167–202; Toshihiro Higuchi, “Atmospheric Nuclear Weapons Testing and the Debate on Risk Knowledge in Cold War America, 1945–1963”, in *ibidem*; Brian Black, Donna Lybecker, *Great Debates in American Environmental History*, Westport, Conn: Greenwood Press, 2008, 91-100; Donald S. Garden, *Australia, New Zealand, and the Pacific: An Environmental History. (Nature and Human Societies)*, Santa Barbara, Calif: ABC-CLIO, 2005, 158-160.

zones (Amerindians<sup>18</sup> and Pacific Islanders<sup>19</sup>), as well as to environmentalist movements opposed to the tests, but such works are few and far between in the field of history itself.

Furthermore, these studies focus on the consequences of the actual tests. Yet, the environmental consequences of testing go well beyond the question of radioactive fallout, however significant this might be, if we are to take into account the whole set of complex dynamics brought into play by the industrial infrastructure set up to support them, not to mention the fact that anthropic activity is itself vulnerable to natural risks. When the CEP was established in French Polynesia, it found itself confronted with two major hazards that could potentially cause great damage, namely cyclones and tsunamis. While these two phenomena have been studied in the broad, both in terms of their features and their chronology, the literature does not specifically discuss the vulnerability of the infrastructures set up on these islands of French Polynesia. The upshot is that, with regard to Pacific test ranges, one may wonder about the extent to which these risks were evaluated in the choice of sites, and whether they were taken into account in terms of their planning and development, particularly to avoid domino effects in the context of natural-technological hazards. The question needs to be asked all the more in that two major tsunamis (1960, 1964), that is, both before and at the time of the installation of the CEP, had significant impact as they tore through the Pacific. The damage to the islands used by the CEP, that was caused by the cyclones of 1982 and 1983, also raises the question of the inclusion of this risk in the planning and development of sites, without even taking into account the fact that the tests themselves present an abiding cause of natural hazard, be it that of a tsunami associated with an submarine landslide affecting the flanks that had been destabilised by the underground explosions in the atoll, or risks of flooding in the rear bases, linked indirectly to the nuclear facilities. On Tahiti, the urbanisation of the Punaruu valley is a by-product of the setting up of the CEP which itself “fabricated” the risk by introducing vulnerabilities into a flood-prone area, thereby creating the only part of French Polynesia that requires the implementation of a Flood Risk Prevention Plan (in French *PPRI: Plan de Prévention des Risques d'Inondation*).

The particularity of the environmental approach, capable of integrating technical, political and ecological factors into a broader reflection on the relations between humans and non-humans, offers promising prospects, as long as we expand the research to consider indirect testing-related issues. It is our hope that the conference “Tests in the Desert?” will provide an opportunity to think about the environmental, material and conceptual consequences of the development of peripheral spaces, the contacts between nuclear powers and local populations, political conflicts and environmental activism. The conference could thus be the opportunity to deepen our thinking about the concept of “regimes of nuclearity” by proposing a typology that shows not only the range of material contexts, but also different appropriations and memories of these cohabitations with the facilities needed for the nuclear tests.

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<sup>18</sup> Peter H. Eichstaedt, *If You Poison Us: Uranium and Native Americans*. Santa Fe, Red Crane Books, 1994.

<sup>19</sup> Jane Dibblin, *Day of Two Suns: US Nuclear Testing and the Pacific Islanders*. New York, New Amsterdam Books, 1990.

Proposals of papers are sought for the following four axes:

1/ Comparing the construction and operation of sites:

1. 1. Choice of location. Decision-making processes (comparisons between liberal democracies and authoritarian regimes), making decisions public or not, deliberation, technical and political supporting evidence put forward by the respective States for proceeding with full-scale nuclear tests, both atmospheric and underground; involvement of the populations concerned, comparison of the colonial fringe spaces chosen;
1. 2. Construction of atmospheric/underground test ranges: knowledge of the sites, land acquisitions, conceptions of the facilities, taking account of the risks and means of controlling them, mobilisation of construction workers, both indigenous and outsiders, anticipation of the future evolution of the sites and facilities, impacts, levers of development;
- 1.3. Test campaigns: operation and scientific, technical and strategic goals (measuring the power of the nuclear blasts, weapons tests, measuring the effects on equipment and living organisms...), typology of nuclear tests throughout the world since 1945.
1. 4. Relations among those who construct the sites and carry out the tests (civilian and military; local, national, foreign workers)
1. 5. Flow of exchange of cultural practices, consumer goods, naturally occurring species.

2/ Actors and regimes of nuclearity: decision-makers, activists, local inhabitants

2. 1. Typology of decision-makers according to the site, the country and the geostrategic and diplomatic context: facilities controlled by the military/civil authorities, mixed administrations (French DIRCEN: Army/civil body in charge of nuclear operations in French Polynesia: *Direction des centres d'expérimentations nucléaires*), comparison of the ways in which different militaries manage tests;
2. 2. Activists against nuclear testing: ideologies (third-world, pacifism, ecology...), inventory of actions (press, meetings, sit-ins, campaigns, boycotts, etc.), structuring of networks, transnational flows;
2. 3. Regimes of nuclearity of the locals: modes of cohabitation, socio-economic, cultural and health effects;
2. 4. Public opinion at different levels: host country of the site, neighbouring countries, international public opinion with respect to tests and policies of non-proliferation (CTBT).

3/ Legacies: environmental effects, health risks, (re-)development of location, social, cultural and symbolic impacts, politics of memory

- 3.1. Anticipations of site dismantlement: comparison of moratoriums on testing and simulation programmes preparing for the end of site use;
3. 2. Politics of restoration (form of restoration: strategy, rehabilitation, reclamation), site conversion, and development of the societies concerned;
3. 3. Living in the vicinity of former nuclear test sites;
3. 4. The material future of the development of sites and their heritage status. Local and national political aftermath of the tests and the facilities;
3. 5. History of the environmental impacts of nuclear testing: comparisons between actors; issues of scientific exploitation of the natural environment in the wake of testing
3. 6. Diversity of memory, competing memories; processes of compensation and damage claims and payments.

#### 4/ Typology of flows of exchange:

4.1 Espionage and counter-espionage

4. 2 Informal collaboration between various actors: physicists, military personnel, engineers, technicians, etc.

4.3 Political cooperation: secret/ clandestine/public

4. 4. Shared cultures and practices: exchanges of professional and cultural practices among construction site workers, civilian engineers and technicians and the military in charge of the tests (preparation of the site, measures, decontamination)

4. 5. A test culture (activists, academics, workers, site operators, etc.); a shared imaginary? (comparison and circulation of representations of nuclear tests in fiction)

The conference aims to provide a platform to enable the drawing up of a typology of sites and their periodisation, concerning as many facilities as possible where nuclear tests have either been carried out or were planned. The facilities of so-called “threshold states” (Sweden, Iran), others whose equipment has remained clandestine or secret (South Africa, Israel, North Korea), and lastly the situation of Powers planning such a facility (Turkey, Saudi Arabia, Egypt) all come within the scope of the conference.

**Conference dates: 19-21 January 2022**

**Conference venue: Paris.**

**Deadline for proposals of papers: 1<sup>st</sup> June 2021**

Proposals (**one page and a short biography**) should be sent to:

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