

MATERI AL NUCL EAR CUL TURE

KARST

James Acord
Crowe & Rawlinson
Erika Kobayashi
David Mabb
Susan Schuppli
Kota Takeuchi
Thomson & Craighead

MATERIAL NUCLEAR CULTURE

Curated by Ele Carpenter
Arts Catalyst

KARST

22 George Place,
Stonehouse,
Plymouth
PL1 3NY

17 June – 13 August 2016

Wednesday – Saturday
11 – 5pm
Or by appointment
Free admission



Nick Crowe and Ian Rawlinson, *Seven Subs* (2016)

Material Nuclear Culture is an exhibition exploring the material traces and cultural legacy of nuclear powered submarines in the UK, within the international discourse of deep time aesthetics and memory. The exhibition highlights the complexity of archiving the cultural legacy of submarine heritage within a wider discussion of how to comprehend the deep time challenges of radioactive waste storage.

Nick Crowe & Ian Rawlinson's new film, *Courageous*, follows the material surfaces of a nuclear submarine. Jon Thomson & Alison Craighead's, *Temporary Index*, is a digital artwork that counts down decay rates of entombed radioactive waste sites around the world. David Mabb's new sculptural series, *A Provisional Memorial to Nuclear Disarmament*, draws on the Royal Navy's love of William Morris fabric and Morris's revolutionary politics. Susan Schuppli's audio work *Sound of Sand*, investigates the poetics of sonar surveillance.

The exhibition will situate these new works alongside works by Japanese artists investigating the deep time memory over generations. Erika Kobayashi's 'Half Life' calendar maps the intergenerational timescales of radiation between Europe and Japan, through the decay rate of Radium. Artist Kota Takeuchi will present his work 'Take Stone Monuments Twice' revisiting monuments along the Tohoku coast of Japan. The artwork reflects on the tensions between monuments of the past and markers for the future.

This year will mark the end of the Royal Navy fifteen-year public consultation on how to dismantle British nuclear submarines, and where to store the reactor vessels. The Submarine Dismantling Project Advisory Group is the first MOD public consultation with expert advisors, NGO's and statutory agencies that represent a range of experience and political concerns. The exhibition takes place in the spirit of the advisory group and their commitment to an open and frank discussion about the issues of nuclear dismantling and radioactive waste management.



Roundtable (1999)

JAMES ACORD Roundtable

James Acord (1944-2011) was an American artist who campaigned for openness and cultural engagement in the long-term dangers posed by nuclear materials. He built a roundtable in his Hanford studio to bring together nuclear scientists, engineers and environment agencies for a frank and open discussion about the possibilities and dangers of working with nuclear material. The table has been reconstructed to host a roundtable discussion between artists, curators, submariners, and members of the Submarine Dismantling Project Advisory Group, and Nuclear Submarine Forum on Saturday 18 June, 10-3pm.



Courageous, HD film (2016)

NICK CROWE & IAN RAWLINSON Courageous

This subtly poetic film explores the submarine as an object within its own terms, moving beyond the powerful but familiar narratives of functionality and social context. Instead the film looks to capture the unknown 'self' of the submarine, a space of being that is difficult to grasp. The artists are interested in the dual status of this submarine as a piece of history and a museum of that history. The physical object often remains obscured by the narratives that surround it. Whilst there have been various documentaries about life aboard a naval submarine these inevitably focus on personal narratives, where the boat is a supporting character and never given the space to articulate itself. The film considers the submarine as an emblem of hearing and silence, an icon through which to consider the unknowability of the nuclear.



ERIKA KOBAYASHI Half-Life Calendar

Erika Kobayashi's Half-Life Calendar draws from her research on the history of radium. The exhibition presents one poster from a series of 1601 countdown-year-calendars, a number that reflects the half-life of Radium 226. Kobayashi uses conceptual, and narrative strategies to make visible the materiality of radiation through manga, novels and drawings. The poster synthesizes her ideas by mapping the discovery and decay rate of radium through the generations of her family. The story starts with Madam Curie's discovery of Radium and anticipates the fading of its half-life until 3035. 'Half Life' is a double-sided poster: one side tells the intergenerational history of her family and radiation, the other side provides an annual calendar to count down the years until 3035.

Half-Life Calendar, Radium 226 (2014)
1601 numbered, double sided offset print on paper, 84.1 x 59.4 cm.
Design in collaboration with Mina Tabei. Photo by Takashi Nakahara



A Provisional Memorial to Nuclear Disarmament (2015)
[How I become Death] [Scrap Trident]

DAVID MABB A Provisional Memorial to Nuclear Disarmament

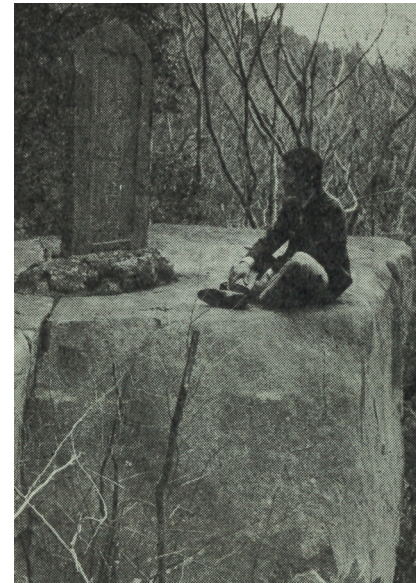
David Mabb investigates the aesthetics of William Morris' designs within contemporary political culture. In response to HMS Courageous, Mabb has created a new series of works to investigate the use of the Morris Tudor Rose print used to furnish the officers' and senior ratings' quarters in nuclear submarines. The Ministry of Defence commissioned the fabric from the 1960s to the 1990s, including the Vanguard Class nuclear-powered ballistic missile submarines which are armed with Trident nuclear-armed missiles. As a socialist, William Morris could never have anticipated that his designs would become the symbol of English homeliness in a nuclear submarine. Prompted by the work of British historian E. P. Thompson, whose biography of Morris was republished in the 1970s when he was a leading intellectual in the Campaign for Nuclear Disarmament, Mabb reappropriates Morris from the MOD, bringing the designs into conjunction with a range of anti-nuclear protest signs and slogans which are presented on late twentieth century free standing projection screens.



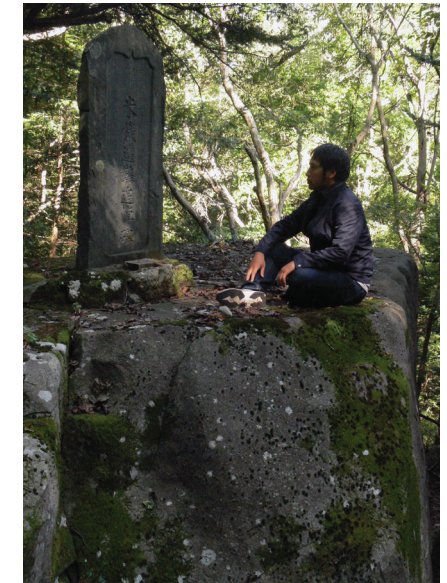
Sound of Sand (2016)

SUSAN SCHUPPLI Sound of Sand

Susan Schuppli is interested in how the objects, technologies, and practices of science are narrated in ways that makes them consequential for culture and society. Her Sound of Sand audio work is based on the 20 hertz frequency of sand. Following a site visit to HMS Courageous she wrote: "Our tour was conducted by a retired Officer Alan Jones who had worked for decades on various nuclear submarines. The Valiant-class of submarines were primarily used for surveillance during the Cold War, and were tasked with trolling the waters of the North Atlantic and monitoring underwater activity that might be indicative of covert operations. Alan recounted one such sortie in which a strange new frequency was picked up by the submarine's passive sonar technology. Unable to identify the frequency and thus its source, the submarine began to chase the sound as it moved in ever-changing configurations. When the submarine finally surfaced and returned to its base at Faslane, Scotland it was discovered that what they had been following was the sound of granular particles of sand being rubbed by the undulating motion of the waves." Susan Schuppli, 2014.

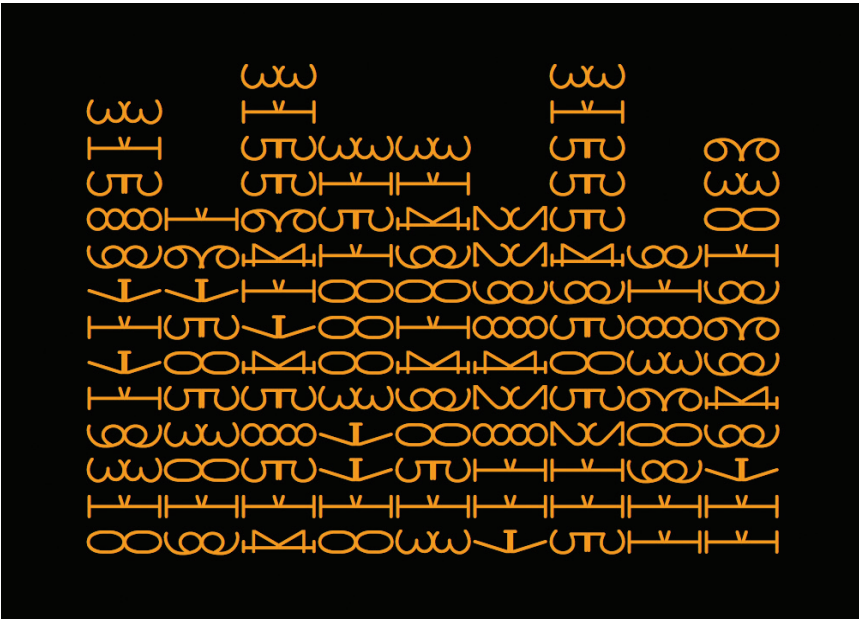


Take Stone Monuments Twice (2013)
Courtesy of Seiko Maeyama



KOTA TAKEUCHI Take Stone Monuments Twice

Kota Takeuchi is interested in how we physically view and perform images of public scenery, social events, and their memory. His recent work investigates relationships between media and social memory by revisiting historical monuments and modern industrial legacies. 'Take Stone Monuments Twice' draws from a book by Ichiro Saito called 'Economic History in the Modern Age of Iwaki' (1976) documenting stone monuments and makers in the Iwaki region of Japan. In 2013, Takeuchi followed Saito's guidebook, retracing his steps and re-photographing the stones. The resulting series of images deals directly with the discrimination between monument and site marker, where the marker communicates a message for the future, rather than simply remembering the past.



Temporary Index, Installation (2015)

ALISON CRAIGHEAD & JON THOMSON Temporary Index

Jon Thomson and Alison Craighead investigate geological and planetary time through the relationship between live data and the material world. Their 'Temporary Index' is an online database of live decay-rate counters, which operate as markers of time as well as place. The artwork utilizes live and pre-recorded data feeds which can be embedded in specific sites, online, in galleries, museums and nuclear archives. The artwork publically presents invisible data through a series of numeric counters which countdown the probabilistic decay of entombed radioactive waste materials in seconds. The design of the counters demonstrates how human measurement of time is a process of linguistic and pictorial language. These representations of time far outstrip the human life cycle and provide us with a glimpse into the vast time scales that define the universe in which we live, but which also represent a future limit of humanity's temporal sphere of influence.

TEMPORARY INDEX KEY

Summary of counters, left to right:

- | | |
|--|---|
| (1) Onkalo Spent Nuclear Fuel Repository
Eurajoki, Finland (65.622601, 25.059401)
start: 2020-01-01 duration: 100,000 years | (6) Piqua Nuclear Power Facility
Piqua, Ohio, USA (40.136498, -84.235732)
start: 1969-01-01 duration: 120 years |
| (2) Hallam Nuclear Generating Station
Lincoln, Nebraska, USA (40.837563, -96.575402)
start: 1969-04-01 duration: 100 years | (7) The Hanford Site
Hanford, Washington, USA (46.550401, -119.488993)
start: 1970-01-01 duration: 1,000,000 years |
| (3) Waste Isolation Power Plant (WIPP)
Carlsbad, New Mexico, USA (32.371575, -103.792765)
start: 1999-03-26 duration: 1,000,000 years | (8) Dodewaard Nuclear Power Plant
Dodewaard, Netherlands (51.985085, 5.869736)
start: 2005-04-09 duration: 40 years |
| (4) Repository for Radioactive Waste Morsleben
(ERAM)
Sachsen-Anhalt, Germany (52.233895, 11.133445)
start: 2001-04-17 duration: 10,000 years | (9) Chernobyl Reactor #4
Kyivs'ka oblast, Ukraine (50.918699, 30.308831)
start: 1986-04-26 duration: 20,000 years |
| (5) Asse II Mine Intermediate Waste Store
Wolfenbüttel, Germany (52.109482, 10.678745)
start: 1995-01-01 duration: 10,000 years | This data was last updated in April 2016 |

The Material Nuclear Culture exhibition is produced by KARST and Arts Catalyst, curated by Ele Carpenter with support from: Arts Council England; Goldsmiths, University of London; University of Westminster; Sasakawa Foundation; Bildmuseet, Umeå University, Sweden. The research and development of the exhibition was supported by AHRC, npo S-Air and the Daiwa Foundation.

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Design by Joshua Blackwell

Nuclear Culture is a curatorial research project by Ele Carpenter in partnership with Arts Catalyst and Goldsmiths University of London. Nuclear Culture commissions for this exhibition include: Crowe & Rawlinson, Thomson & Craighead, David Mabb and Susan Schuppli; Kota Takeuchi is Artist in Residence at Arts Catalyst during July 2016.

The Nuclear Culture Source Book features the artists in this exhibition alongside 60 artists' pages and essays including: Timothy Morton on radiation as a hyperobject, Jahnavi Phalkey on nuclear culture in India, Susan Schuppli on trace evidence, and Peter C. van Wyck on the nuclear anthropocene. Published by Black Dog Publishing, Bildmuseet, and Arts Catalyst, London. Forthcoming September 2016.

www.nuclear.artscatalyst.org

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