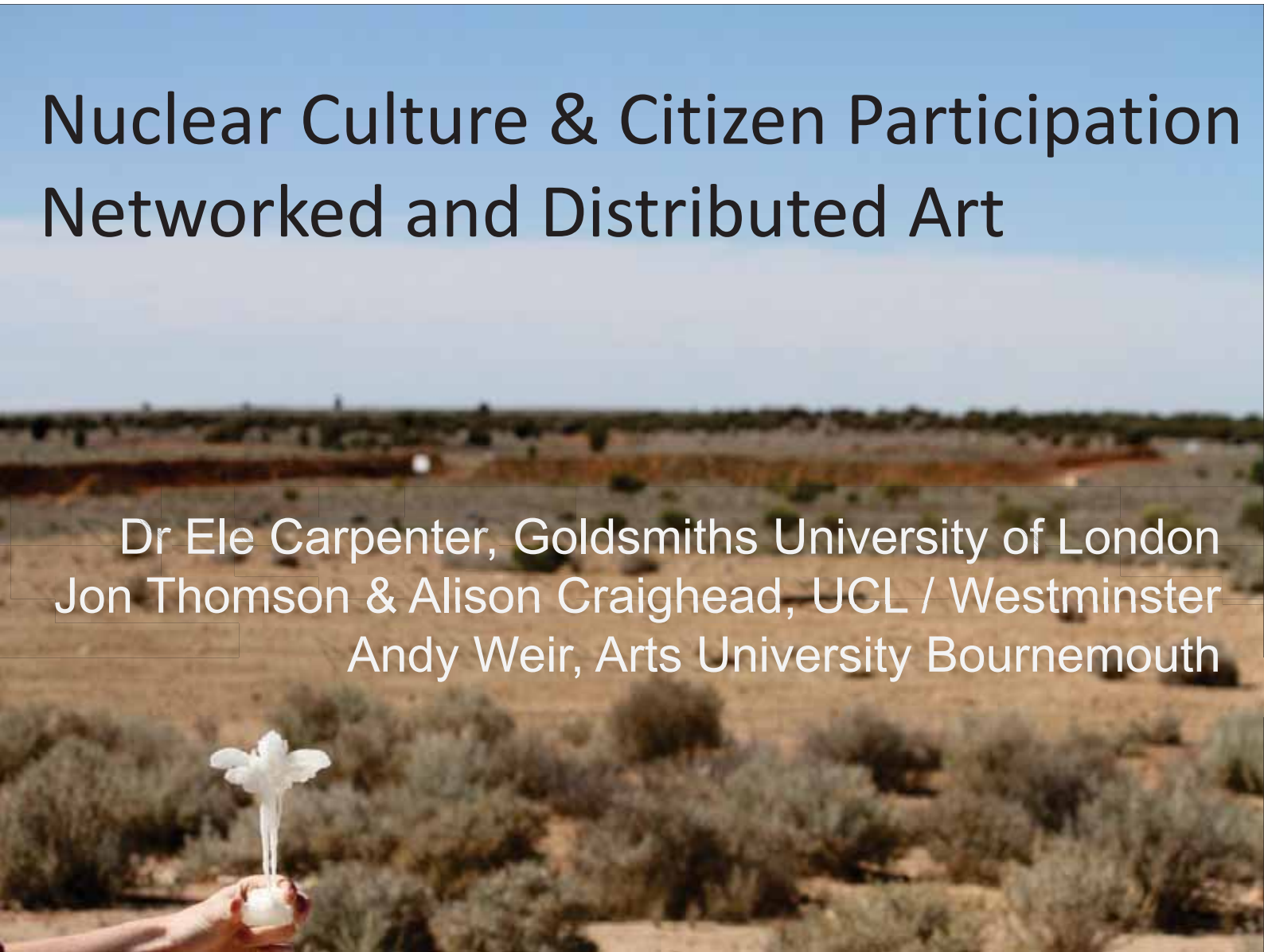
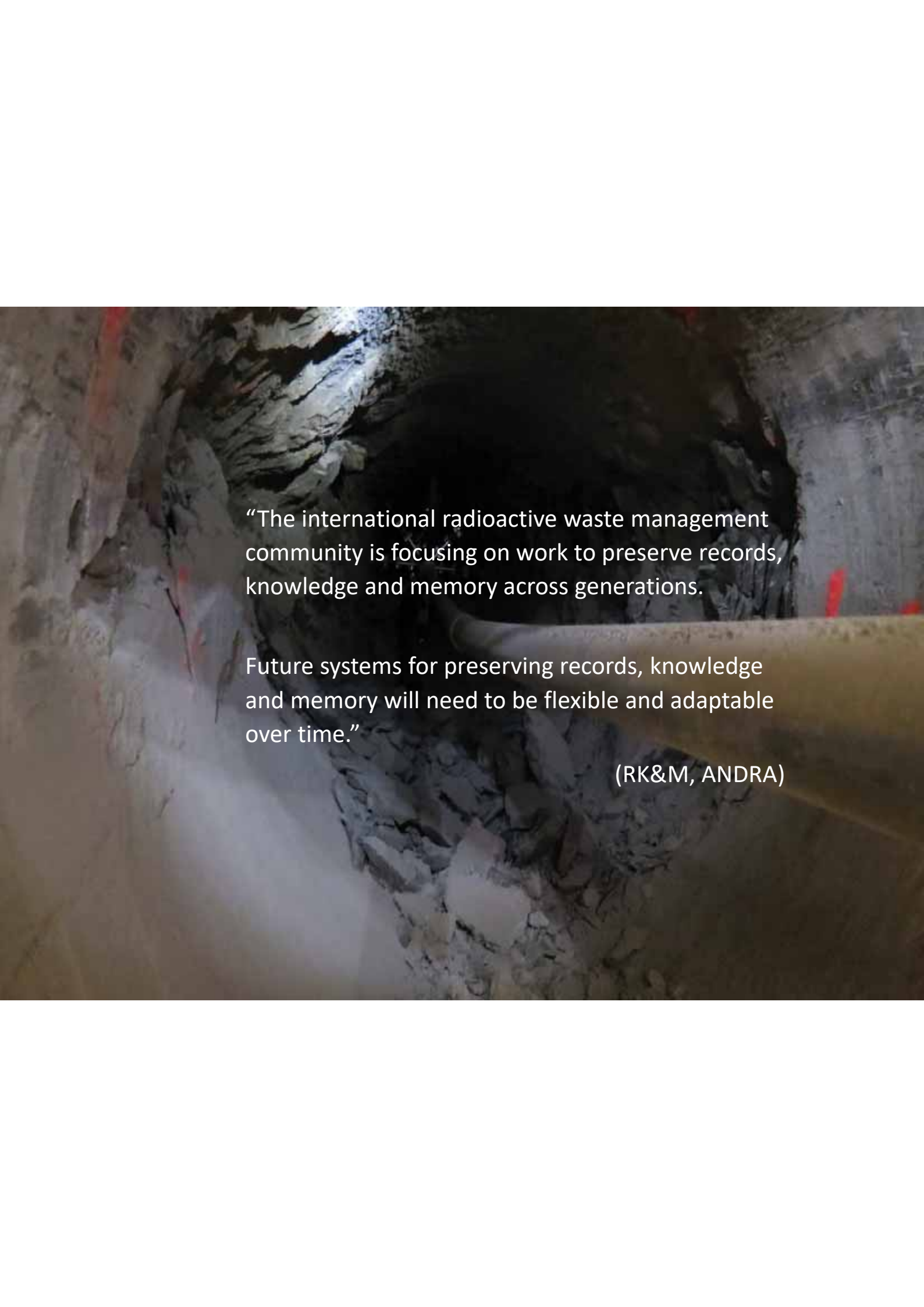


Nuclear Culture & Citizen Participation Networked and Distributed Art

Dr Ele Carpenter, Goldsmiths University of London
Jon Thomson & Alison Craighead, UCL / Westminster
Andy Weir, Arts University Bournemouth



A photograph of a dark, rocky tunnel, likely a geological site. A bright light source, possibly a flashlight, illuminates the left wall, revealing the rough, layered texture of the rock. The rest of the tunnel is in deep shadow. A horizontal metal bar or pipe is visible in the lower right foreground.

“The international radioactive waste management community is focusing on work to preserve records, knowledge and memory across generations.

Future systems for preserving records, knowledge and memory will need to be flexible and adaptable over time.”

(RK&M, ANDRA)



Siting

(Public consultation)

Marking

(site markers, archives, cultural partnerships)

Monitoring

(community engagement, pre and post closure).

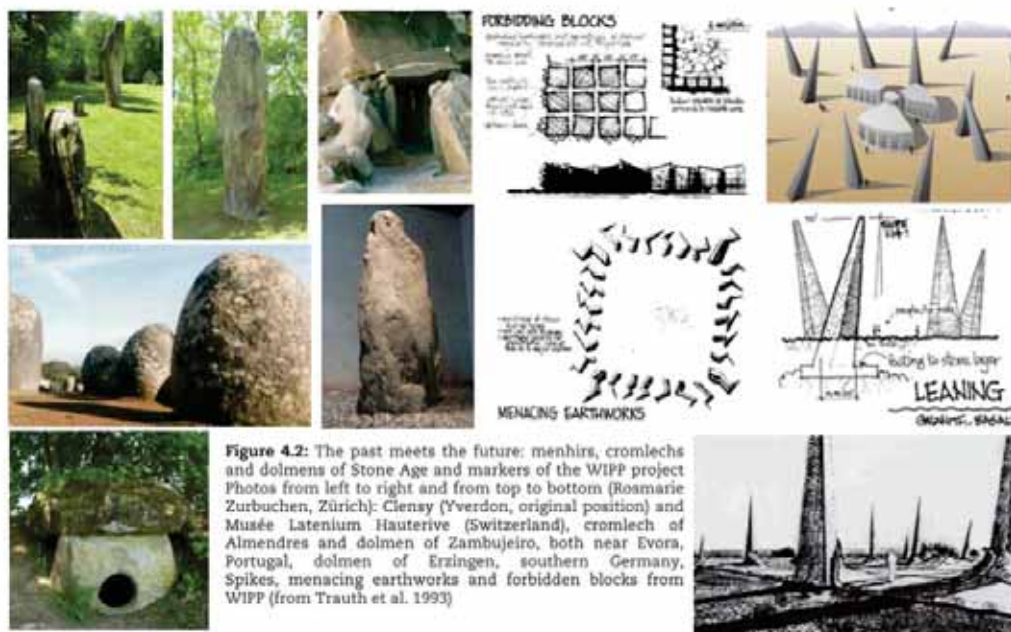


Figure 4.2: The past meets the future: menhirs, cromlechs and dolmens of Stone Age and markers of the WIPP project. Photos from left to right and from top to bottom (Rosmarie Zurbuchen, Zürich): Clensy (Yverdon, original position) and Musée Laténium Hauterive (Switzerland), cromlech of Almendres and dolmen of Zambujeiro, both near Evora, Portugal, dolmen of Erzingen, southern Germany, Spikes, menacing earthworks and forbidden blocks from WIPP (from Trauth et al. 1993)

Literature Survey on Markers and Memory Preservation for Deep Geological Repositories, 2013. Marcos Buser, OECD/NEA.

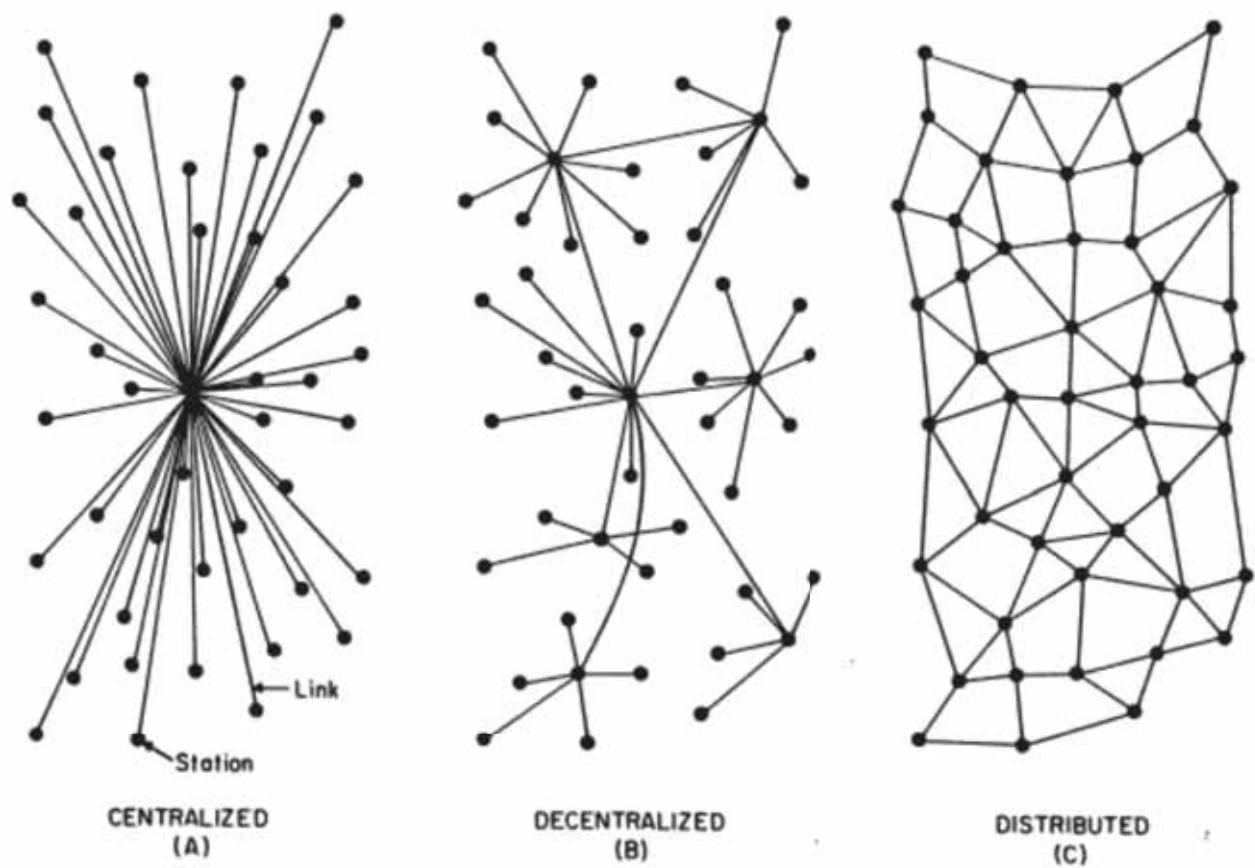


FIG. 1 — Centralized, Decentralized and Distributed Networks

Paul Baran, On Distributed Communications, 1964

Curatorial Strategy

To establish a critical context for commissioning contemporary art which engages individuals and communities in dialogue about the long term siting, monitoring and marking of radioactive waste environments.

- Partnerships between museums and RWM agencies.
- Developing a critical context for the artwork through publishing and roundtable discussions.
- Supporting artistic and curatorial research through site visits and access to information.
- Placing artworks in collections and archives for preservation & scholarship.
- Commissioning networked, permanent, informal and temporal practices.
- Working holistically to consider the de-colonisation of the nuclear cycle.
- Establishing resilient knowledge networks through networked and distributed artworks connecting sites and communities across generations.

Curatorial & Artistic Field Research

Horonobe
Tomari
Fukushima
Sendai

Aldermaston
Cove Park
LLW Ltd Drigg
Sellafield
Wick

Bure, France
Forsmark, Se
Mol, Belgium

SDP-AG
MoDerN
InSOTEC
E-Track
Nuvia
RK&M
IDKR&M
Nuclear History
Nuclear Legacies
Nuclear Cultural Heritage
JRC Nuclear Security Team



Nuclear Culture Field Trip, Farmer Kuse and his dairy cows, Hokkaido, Japan, 2014.
Supported by S-Air and Arts Catalyst.



3 1 4 3 8 1 5 5 4 8 9 3 6

**THE SECONDS REMAINING BEFORE
THE WASTE THAT'S STILL HERE
IS SAFE FOR US ALL**

A NUCLEAR SEMIOTIC TOTEM - THOMSON & CRAIGHEAD

<http://www.thomson-craighead.net>

[illegible]

Thomson & Craighead, temporary index (online database of counters)

Thomson+Craighead a temporary index

1. Onkalo Spent Nuclear Fuel Repository

Eurajoki, Finland

start: 2020-01-01

duration: 100,000 years

2. Hallam Nuclear Generating Station

Lincoln, Nebraska, USA

start: 1969-04-01

duration: 100 years

3. Waste Isolation Power Plant (WIPP)

Carlsbad, New Mexico, USA

start: 1999-03-26

duration: 1,000,000 years

4. Repository for Rad Waste Morsleben

(ERAM) Sachsen-Anhalt, Germany

start: 2001-04-17

duration: 10,000 years

5. Asse II Mine Intermediate Waste Store

Wolfenbüttel, Germany

start: 1995-01-01

duration: 10,000 years

6. Piqua Nuclear Power Facility

Piqua, Ohio, USA

start: 1969-01-01

duration: 120 years

7. The Hanford Site

Hanford, Washington, USA

start: 1970-01-01

duration: 1,000,000 years

8. Dodewaard Nuclear Power Plant

Dodewaard, Netherlands

start: 2005-04-09

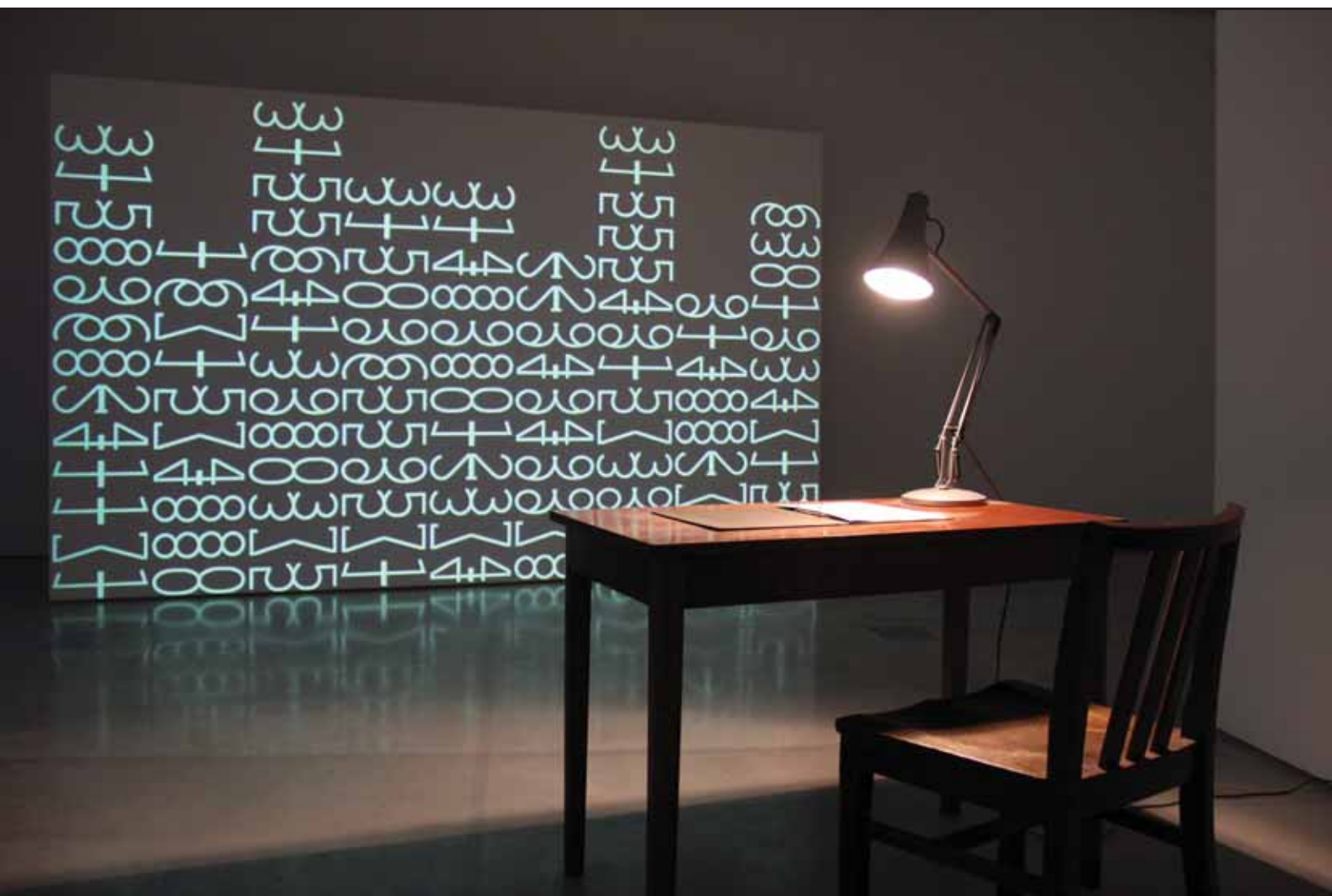
duration: 40 years

9. Chernobyl Reactor #4

Kyivs'ka oblast, Ukraine

start: 1986-04-26

duration: 20,000 years



Thomson & Craighead, temporary index. Carroll/Fletcher, London, 2015

Thomson & Craighead
temporary index: Chernobyl, Reactor 4
Perpetual Uncertainty exhibition
Bildmuseet, Umea, Sweden, 2016






Thomson & Craighead, temporary index the Dounreay low level waste storage site, commissioned for Nucleus, the Nuclear and Caithness Archives at Wick, Scotland.

Supported by Highland Highlife and the Nuclear Decommissioning Agency (NDA).



Illustration of how the Dounraey temporary index might be presented at Nucleus



Nuclear Culture Field Visit
HADES, Mol, Belgium 2016

Z33 House of Contemporary
Art with ONDRAF / NIRAS

Ils Huygens, Dave Griffiths, Maarten Ven Geert, Christophe Depaus,
Kota Takeuchi, Ele Carpenter, Jantine Schroeder, Andy Weir, Helena, Z33.



Andy Weir
Pazugoo

3D Printable Marker for a
Future Posthuman
Palaeoarcheologist
(c.700 BC – 4.6×10^9 AD)

A collectively modifiable
Uranium-glowstick waving
Pazuzu, the Sumero-Asyrrian
demon of contagion,
epidemic and dust.

Proposed as a distributed
marker for the Deep
Geological Repository
project.



Andy Weir, Pazugoo
Participatory 3D Printing workshop, Bildmuseet, Umea University, Sweden, 2016



Andy Weir
Bronze Marker

This bronze cast is only a few inches high, and is designed to be buried at the threshold or perimeter of a low or intermediate level waste site. This buried public artwork will be archived and protected by a repository cultural centre until the work is lost and found by future generations. A map of its location will be stored with the museum index.

Andy Weir
Pazugo Museum Index

Acquired by the Malmö Konst museum for future preservation and scholarship.

The archive accompanying the object will include the location of Pazugoo objects at nuclear sites around the world, and the Key Information File (KIF) of the Records Knowledge & Memory (RK&M) project.





Saint Barbara,
HADES, Mol, Belgium.

Patron Saint of artillery
and mining, she protects
against lightning and
explosions.

TEST SITE
TARANAKI
A BRITISH ATOMIC
WEAPON WAS TEST
EXPLODED HERE ON
9 OCT 1957

3D printed Pazugoo
Taranaki Test Site, Australia





Andy Weir, Pazugoo
Perpetual Uncertainty exhibition
Malmo Konstmuseum, Sweden, 2018



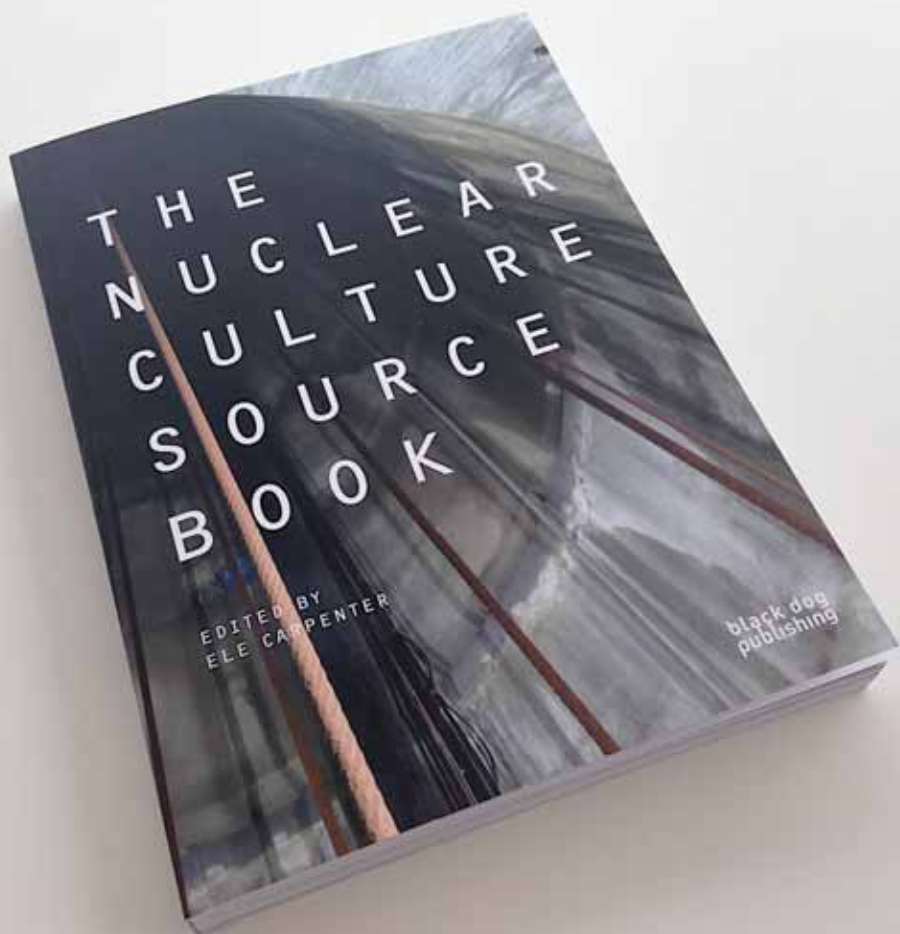
James Acord, Hanford Studio, 1990s

Material Nuclear Culture
KARST, Plymouth 2016
Roundtable Presentations





Perpetual Uncertainty Roundtable, Z33 Hasselt, Belgium, 2017.



“Marshall McLuhan said that art was an early warning system in times of technological change.

In bringing together nuclear art and critical writings that tell our culture what is happening to it, Ele Carpenter’s compelling book proves him right.”

John O’Brian

Curatorial & Artistic knowledge production

Aesthetic

- Embodied abstract thought
- Manifest material geo-politics
- Complexity of invisibility / visibility

Social

- Embodied knowledge in artefacts
- Socially engaged experiences, exchanges and networks
- Holistic interdisciplinary knowledge
- Politically pluralistic representation

Cultural:

- Cultural Inheritance through art collections, publications, archives
- Culturally embedded site marking (distributed and networked)

nuclear.artscatalyst.org