Supplement of

Historical contextualization of the site selection process for the German high-level nuclear waste (HLW) repository as a tool for information and awareness preservation

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HISTORICAL CONTEXTUALIZATION OF THE SITE SELECTION PROCESS

as tool for information and awareness preservation

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HISTORICAL CONTEXTUALIZATION OF THE SITE SELECTION PROCESS

THE "HISTORICAL BACKPACK"

WHY HISTORICAL CONTEXTUALIZATION?

AIMS, METHODS AND TOOLS

OUTLOOK
## HISTORICAL CONTEXTUALIZATION OF THE SITE SELECTION PROCESS

### The "Historical Backpack" I

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Since 1977</td>
<td>Controversy over Gorleben</td>
</tr>
<tr>
<td>1979 - 2012</td>
<td>Exploration of the Gorleben Salt dome</td>
</tr>
<tr>
<td>1980 - 1981</td>
<td>Exploratory drilling</td>
</tr>
<tr>
<td>June 1980</td>
<td>&quot;Republik Freies Wendland&quot;</td>
</tr>
<tr>
<td>June 1982</td>
<td>Release of the Duphorn-Report</td>
</tr>
<tr>
<td>July 1983</td>
<td>Federal Government decides on underground exploration</td>
</tr>
<tr>
<td>1986</td>
<td>Further excavation of Shaft I</td>
</tr>
<tr>
<td>1999 – 2002</td>
<td>AkEnd Arbeitskreis Auswahlverfahren Endlagerstandorte</td>
</tr>
<tr>
<td>2000</td>
<td>Nuclear phase-out agreement</td>
</tr>
<tr>
<td>2001 - 2011</td>
<td>Gorleben moratorium</td>
</tr>
</tbody>
</table>

Site selection procedure after the Site Selection Act is result of intergenerational social conflict.
**HISTORICAL CONTEXTUALIZATION OF THE SITE SELECTION PROCESS**

### The "Historical Backpack" II

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 - 2013</td>
<td>Gorleben Fact-finding committee</td>
</tr>
<tr>
<td>2011</td>
<td>Decision to phase out nuclear power by 2022</td>
</tr>
<tr>
<td>2013</td>
<td>Site Selection Act for Nuclear Repository</td>
</tr>
<tr>
<td>2014 - 2016</td>
<td>Repository Commission Evaluation of the Act</td>
</tr>
<tr>
<td>2016</td>
<td>Reorganisation of Responsibilities in the waste disposal sector</td>
</tr>
<tr>
<td>2017</td>
<td>German Nuclear Waste Management Fund (KENFO)</td>
</tr>
<tr>
<td>2017</td>
<td>Amendment of the Site Selection Act: Beginning of the new site selection</td>
</tr>
<tr>
<td>30.06.2020</td>
<td>Geological Data Act (GeolDG)</td>
</tr>
<tr>
<td>15.10.2020</td>
<td>Security Regulations (EndlSiAnfV(^1) und EndlSiUntV(^2))</td>
</tr>
</tbody>
</table>

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\(^1\)Endlagersicherheitsanforderungsverordnung vom 6. Oktober 2020 (BGBl. I S. 2094)

\(^2\)Endlagersicherheitsuntersuchungsverordnung vom 6. Oktober 2020 (BGBl. I S. 2094, 2103)
The "Historical Backpack" III

- What was different "in the past" (1977 to 2013 before the new procedure?
  - Site selection for the „nuclear disposal center“ with the world largest civilian reprocessing plant in it
  - In the absence of an regulatory act procedures and criteria were developed acording to practical considerations
  - The work at Gorleben took place at the height of the nuclear controversy in Germany
  - The prearranged selection procedure was not transparent and different opinions on it still exist today (see Fact-Finding committees’ Report on Gorleben)
"Waste disposal center"

Quelle: Projektgesellschaft für Wiederaufarbeitung mbH
The “Historical Backpack“ IV

- Site Selection Act 2013 and 2017 draws lessons from history:
  - Evaluation of the Repository Commission
  - Priority of safety and geology: the site „with the best possible safety“
  - The goal of StandAG § 1 Abs. 2 is a participatory, scientific-based, transparent, self-reflecting and learning procedure („partizipatives, wissenschaftsbasiertes, transparentes, selbstinterfragendes und lernendes Verfahren“)
  - Legitimacy through federal laws
  - Phased procedures according to criteria approved by the Repository Commission
HISTORICAL CONTEXTUALIZATION OF THE SITE SELECTION PROCESS

The “Historical Backpack“ V

- What is better today („new“ procedure since 2017)?
  - Continous monitoring by the National Citizens‘ Oversight Committee (Nationales Begleitgremium (NBG): Review of files, Assessment Reports
  - Continious public partizipation with Provision of platforms for public engagement (Informationsplattform, Fachkonferenz Teilgebiete, Forum Endlagersuche /1/) organized by the Federal Office for the safety of Nuclear Waste Management (Bundesamt für die Sicherheit in der kerntechnischen Entsorgung (BASE), with the participation of NBG and the BGE (Federal Company for Radioactive Waste Disposal)
  - Implementor BGE: Presentation/discussion/ implementation research findings with all stakeholders, correction of errors (e.g. Sub-areas Interim Report) and evidence–based learning (e.g. initiation of Research projects)
  - Defined procedures with ongoing scrutiny, review and approval from BASE

/1/ Phase II/III: Regionalkonferenzen, Rat der Regionen
What is already done?

- The BGE has built up the site selection department (2016-2018)
- Based on existing data from federal and state authorities the BGE has identified partial areas based on the geoscientific exclusion criteria, the minimum requirements and the geoscientific weighing criteria. (2017-2020)
- The BGE submitted the Sub-areas Interim Report to the BASE (28.09.2020)
- The BGE discussed the Report on the "Specialist Conference on Sub-Areas“ (2020/1) and take continuously advises, suggestions and comments into account
- Currently the BGE has worked on methods for representative preliminary safety analyses, geoscientific consideration criteria and planning-scientific weighing criteria (2021-2023)
WHY HISTORICAL CONTEXTUALIZATION?
Why?

- Because of the long time of waste disposal management the preservation of historical knowledge is important.
- The phased procedure of the Site Selection Act is unique in the sense of the long time span and complexity.
  
  Breakpoints and returns in the process require documentation and explanations.
- Historical Contextualization is a component for a self-learning system.
- Historical Contextualization is sociotechnical repository research: “Wicked problem (Achim Bunnengräber)” of final nuclear waste disposal is to be researched with a multi-perspective, interdisciplinary and transdisciplinary approach.
AIMS, METHODS AND TOOLS
HISTORICAL CONTEXTUALIZATION
OF THE SITE SELECTION PROCESS

Goals

- to convey the problem of the nuclear waste disposal as a technical and social task between the generations
- to be the base for reflection on the decisions already made
- to contribute to transparency (with interim reports)
- Historical Contextualization is part of the BGE-Knowledgemanagement: Tacit knowledge is elicited with interviews and explicit knowledge is organized
HISTORICAL CONTEXTUALIZATION
OF THE SITE SELECTION PROCESS

- monitoring (events and literature)
- set of cohesive storylines
- interviews with eyewitnesses
- central documents related with the storylines
Outcome

- no classic "opus magnum" on BGE perspective
- research tools and finding aids for further research
- a base for reflection:
- From the "participating observation" to a "cultural memory" (Aleida und Jan Assmann)
Outlook

- Frank Uekötter /1/ comes to the conclusion, that the „Geschichte der Atomkraft“ can be seen as „ein Erfolg der bundesdeutschen Verhandlungsdemokratie“: The development of the "new“ site selection process has overcome decades-old conflicts and blockages..

- All stakeholders of the siting process can contribute to the change of the "Hard Nuclear State“ („harter Atomstaat“, Robert Jungk) to the “Soft Waste Disposal State“ („weicher Endlagerstaat“, Achim Brunnengräber) /2/.

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SAVE THE DATE

9th International Conference on Clays in Natural and Engineered Barriers for Radioactive Waste Confinement

25th - 28th November 2024
supporting programme: 24th & 29th November

Hannover/Germany at
HCC Hannover Congress Centrum
secretary@clayconference2024.de

plenary sessions · parallel sessions · poster presentations
networking events · scientific supporting programme and lively discussions
BUNDESGESELLSCHAFT FÜR ENDLAGERUNG

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