



The role of nuclear cultural heritage in long-term nuclear waste governance

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Abstract. Against the background of the long period of time for which the highly radioactive waste is to be safely stored, this waste is understood as an eternal burden (Brunnengräber, 2015). For the human imagination, such long periods of time are hardly comprehensible and graspable; instead, fears, worries and ideas fed by past and present experiences prevail, out of which expectations for the future are developed. According to StandAG, the site selection procedure should be transparent, participatory, learning, self-questioning and science-based, i.e. a procedure that can be perceived as fair and comprehensible and can thus promote the acceptability of the decision for a site and ensure “added value” of the site beyond its core function (NEA, 2022). At the same time, the interests of numerous stakeholders across generations and their role in active or more passive oversight of the site must be taken into account. Even after the site has been chosen, during the construction and operating phases, and after the repository has been closed, the memory of the repository must be preserved, and the region that takes on the burden must be honoured. This region will already change beforehand, for example due to the activities during the construction and emplacement phase, the attribution of meaning by the media, politics, and the public of the region as a future repository region.

International literature on nuclear heritage (Rindzevičiūtė, 2019; Pitkanen and Farish, 2018), cultural memories (Assmann, 2010), nuclearity (Blowers, 2016; Hecht, 2014), energy cultures (Uhlig, 2020; Stephenson et al., 2015), spatial identity processes (Devine-Wright and Batel, 2017), and long-term governance and institutionalization (Mbah and Kuppler, 2021), as well as sociotechnical imaginaries (Jasanoff and Kim, 2013; Watkins, 2014), show different approaches on how developments in connection with changes of the landscape over time and the identity of a region can take place and how an institutionalization of places of nuclear cultural heritage could look. Places of nuclear significance often develop locally starting from nuclear infrastructures and activities concerning nuclear issues such as protests and might include institutionalization processes, e.g. the implementation of places of memory like museums. This may happen without the initial intention of institutionalization of a nuclear cultural heritage. Additionally, top-down processes from politics and administration may support institutionalization actively. How the different processes and activities are intertwined and foster institutionalization, as well as the role of different timescales in relation to these processes, is still open for debate (e.g. Pescatore and Palm, 2020). The aim of this research is to explore these multiple aspects that play into the development and emergence of nuclear heritage sites and sketch how a nuclear cultural heritage can aid in working towards long-term nuclear waste governance in a way that takes into account the spatial and cultural specificities of heritage sites and landscapes.

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