

Ethics Beneath the Surface

A short documentary by

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Art & Science collaboration

- We aim to go beyond the common approaches
 - Art as a vehicle (or medium) to get across a scientific message
 - Science should be more than a vehicle to create art
- So, we have started to look again at nuclear waste disposal questions

Aim of the documentary

- To create awareness about the ethical issues associated with 'nuclear' waste management, particularly the longevity thereof
- We have been producing 'nuclear' waste for decades and it will last many more decades before all this waste is disposed of
 - National plans indicate ca. 2120 for disposal
 - We will have to deal with scientific/technical uncertainties but also with ethical uncertainties

Escaping the dichotomy...

- No hidden message integrated...
- This is not supposed to be a documentary bashing (or promoting) nuclear energy
- It is not about nuclear energy at all

The ethical inquiry...

- ‘Nuclear’ waste management might very a responsibility for all,
 - also if you reject the nuclear energy altogether
- The focus of this documentary is on ‘radioactive’ waste management, particularly emphasize the latter
 - Often less substantial risk yet substantially larger magnitudes of waste

The *unnerving normality* of radioactive waste



Ethics *in time* and ethics *on time*

- Many ethical issues are associated with questions of time
 - Intergenerational justice and responsibilities for future generations
 - Who are future generations?
 - Levels of protection we offer to future generations
 - Long-term impacts on the environment



Time is ungraspable...

- The longevity of radioactive waste
- And not only the spent fuel and High Level Waste
- How to make the progress of time – and thereby the longevity of radioactive waste – visible
- How to help distinguish between different time periods

Time and ethical uncertainties

- It is one thing to acknowledge that ethics matters in radioactive waste disposal
- It's a whole different thing when we aim to include those ethical issues in decisions
- When doing the latter, we will run into ethical uncertainties

Ethical uncertainties

- When time passes several things *evolve*
- The technology evolves
 - So we can probably do different/better
- Our understanding of (radiation) risk evolves
 - Move from deterministic to stochastic risk analysis
- Our societies and what we consider good evolve
 - Intergenerational justice barely existed in 1960s
- So, also in short time periods time poses important ethical challenges

In conclusion...

- We aim to convey the message that radioactive waste disposal gives rise to ethical questions
- By genuine art & science collaborations
- Using the medium of film (a documentary), among others

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