

What Art Can Tell About Modified Environmental Systems ©

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Abstract

Mining is not just a technical, but a political, ecological, and social activity. Living space, in a cultural sense, has been described as “landscape” originating in a creative process – unlike wilderness, it does not simply arise, it is manmade, and thus aesthetic.

Sensory perception is seen as a basis for producing knowledge and understanding. Therefore, perception of art produces knowledge, and is capable of engaging with entities beyond the senses and imagination, such as long time-spans, complex systems and invisible phenomena. An open democratic discourse may be facilitated by artistic examinations of mining technologies and their impacts.

This paper introduces examples of artistic projects that are relevant, in various ways, to the topic of mine-water.

Keywords: landscape, artistic research, mine water, aesthetics, perception

The beginning of this paper covers several large territories rather cursory. The intention behind this approach is to point out the peaks of several discourses - “tips of icebergs” - that have taken place within the arts or regarding them. This broadness is necessary: as one can not expect to share the same understanding of terms and approaches in the various disciplines, a widespread introduction frames possible perspectives for a relation between the arts and (environmental) sciences. In the end, three artworks are discussed as examples for “best practice” regarding different issues of mine water which are relevant in a cultural sense.

Fig. 1 is not an actual illustration to the text, but attempts to draw a “map” of the complex territory that shows a selection of the most relevant disciplines and topics around the core problem and their interaction.

Landscape as living and cultural space

Mining, though at first glance focused mainly on inorganic matter, is actually a change in earth systems, occurring in living spaces. Many species, human and non-human alike, are impacted by removal and repositioning of materials and the influence this has on hydrological systems, both during a mining operation and after its closure.

Lucy R. Lippard points out in “Undermining” with the telling subtitle “a wild ride

through land use, politics, and art in the changing West” that there is a “romanticized notion” within the expression “landscape”, which is why she prefers the term “land use” instead (Lippard 2014, 4). Certainly, landscape is a hotly argued term in several disciplines, (especially in German-speaking geography), but also among different methodologies and languages (Kühne 2008, 43). But rather than avoiding it, I suggest an appreciation of the aesthetic emphasis, and focus on elaborating why an aesthetic regime is crucial to land use and its related practices, such as mining and mine water. I prefer to engage and explore the perception, understanding, and interpretation of landscape which is understood as the “archetype of normative projections, aesthetic experiences and sensory appropriation” (Kühne 2008, 43).

The German term “Landschaft (landscape)” can be traced back to „landscaf“ – describing most of all a political-topographic entity: a swath assigned to a social group, an administrative unit (Kirchhoff and Trepl 2009, 19). The root-meaning and usage are similar, though the dating of the term varies throughout the histories of the different Germanic languages and English – „lantschaft“ and „lantskepi“ are already documented as far back as the 8th century (Kluge and Seebold 2002, s.v. Landschaft). Consisting of two parts: „lant“ is associated with free or fallow



land, and „skepi“ with creation. So, from the very beginning, “landscape” has referred to cultivated territory as opposed to uncultivated wilderness or savage nature (Schama 1995). Simon Schama emphasizes in his standard work „Landscape and Memory“: “Before it can ever be the repose for the senses, landscape is the work of the mind. Its scenery is built up as much from strata of memory as from layers of rock.” (Schama 1995, 6–7).

Some authors state that landscape can not be understood as an object without an observer (Trepl 2012, 20). Socio-scientific landscape perspectives suggest models based on physical space which includes an appropriated physical level, a personal level, and a societal level (Kühne 2013). Parts of a landscape can consist not only of objects created and used in the present, but also objects created in the past and abandoned, or visible just in traces, or existing only in stories – even without certain proof (Kühne 2013, 71).

A brief summary on aesthetics as cognition, experience and world view

The question “what can art tell/do/provide ...” has been a fertile territory of arguments from early in the 20th Century until the present day. It is certainly on the agenda, and becomes especially relevant, when contextualized with eco-politics, changed environmental systems and living spaces — for instance those changed as a result of mining activities. The regime of politics in these terms is not merely understood as formalized procedures in parliament and elections, but as a “configuration of a specific space, the framing of a particular sphere of experience” — within this space “objects posited as common” are defined and discussed by “subjects recognized as capable of designing these objects and putting forward arguments about them.” (Rancière 2009b, 24). The regimes of aesthetics and politics, according to Rancière, are not generally “permanent, separate realities”, but share common ground in the “distribution of the sensible” (Rancière 2009b, 25). For instance the “the refusal to consider certain categories of people as political beings”, along with “a refusal to hear the words exiting their mouths as discourse” is one cogent example of this “distribution of the sensible”: an

alteration in processes which have been not physically, but politically invisible or unheard - “to render visible what had not been, and to make heard as speakers those who had been perceived as mere noisy animals” (Rancière 2009b, 24–25).

In “Le destin des images (The Future of the Image)” Rancière analyzed another relevant discourse in the production of knowledge by the arts, basing on aesthetics. He retraces the line of argument back to Plato, whose statements have partly led to a skepticism towards visual representation, having determined that it is a “simulacrum” possessing an overpowering presence which violates the severity of experience. Plato preferred the simple, direct report of a witness, since it is more authentic than a mimetic representation. Rancière points out that this is rather a ban, supported by an ethical argument, making its own paradigms invisible (Rancière 2009a).

Thus, skepticism against the credibility of images and even sensuous impressions in these terms has a tradition in western philosophy, and it is not until the 18th century when it is first made a subject of epistemology, by Francis Hutcheson and Alexander Gottlieb Baumgarten. While Hutcheson was mainly concerned with aesthetic judgment and saw the senses as having “no intellectual element, no reflection on principles and causes”, Baumgarten, (although also coming from a tradition of German enlightenment scholars that “dismissed the senses and the imagination as incapable of providing a genuine cognition of their objects”), was the first to attribute a cognitive function to the senses, aesthetics and the arts (Munro und Scruton 2017). Baumgarten’s treatise „Metaphysica“ published in 1737, lays the foundation for “Aesthetics as science of sensory and imaginative experience” (Baumgarten 1983, 79). Although this argumentation for aesthetic judgment is still seen as general motive behind this text, it only appears after a detailed description of perception, knowledge and interpretation. He was the first philosopher who opened the door for artists to join in the production of knowledge. Immanuel Kant agreed with this argumentation in “Kritik der Urteilskraft (The Critique of Judgment)” in 1790, and acknowledged “aesthetic experi-



ence as a distinct exercise of rational mentality” (Munro und Scruton 2017).

The article is in these traditions more concerned with the cognitive aspects, rather than aesthetic judgments of sensory experience and artistic expressions. Furthermore, western art history in the second half of the 20th century has mainly abandoned the discourse on defining general rules for aesthetic judgments and therefore it is no longer a general criterion.

In the 20th century, John Dewey, philosopher and early theorist and proponent of progressive education, published “Art as Experience” in 1934 - as the title suggests, his main focus is on interactive processes: coding and decoding, accessing and creating experiences through the arts. The term experience itself is not limited to humans, but is universal. Dewey aims to free the arts from isolation as a sublime classical subject in order to protect their power of being rooted in actual, complex experiences (Dewey 2005). Aesthetic understanding is not simply admiration and pleasurable, mindless enjoyment, but includes cognitive knowledge (i.e., in the case of a plant, knowledge of its living conditions in soil, air and light), which makes the aesthetic experience rich and full.

He regrets that the expression “aesthetic” is mainly seen as the passive process of a consumer, while “artistic” is the active, distinguished term in that sense (Dewey 2005, 47–48). Both are forms of aesthetic perception: experiencing and creating art require active and passive processes – they involve reception and exercise of energy. What once was condensed by an artist as aesthetic experience in an artwork needs to be remade as experience by the audience (Dewey 2005). This explains why experiencing art requires exercise and experience.

A misguided experiment on arts and mining – the art collection of Wismut

Having mentioned some already, there is still one important condition to add: freedom of the arts. The German constitution (Basic Law for the Federal Republic of Germany) in Article 5, “Freedom of speech”, reads “Arts and sciences, research and teaching shall be free.” (Basic Law, Art. 5 1949). This may seem so

fundamental, that it might be irritating to see it mentioned at all. But, the singular historical and political conditions of 20th century Germany have left their imprint in art history and discourse, and have had a more important and lingering effect than is often taken into account. The violation of this freedom of the arts was especially strong in the 3rd Reich, starting at the dawn of the 1930’s. Furthermore, this German urge to try to tame the arts did not end there. After the formation out of the Soviet occupation zone of the German Democratic Republic, freedom of arts and science was enshrined in its constitution as Article 34 with almost the same wording as in its West-German counterpart, even with the same reassurance of government protection and support (Constitution, Art. 34 1949). But through lack of application, according to some hypotheses, this legal guarantee of freedom for arts and sciences was erased in the revised version of this statute in 1968 – and in addition arts and science were divided into two different articles, Nr. 17 and Nr. 18. Though still nominally supported, within certain goals and guidelines, (especially for the arts) they were to be devoted to a close relation to the life-world of the nation/folk/people, to what is known as “Socialist Realism” (Constitution, Art. 18 1968).

Why do I mention all this? SDAG Wismut was one of the world’s largest producers of Uranium ore until 1990 - and acting under the guidelines of the GDR constitution has assembled a large collection of more than 4.000 artworks covering a period of several decades, including works of music and literature, (mainly commissioned), that are today owned by Wismut GmbH (Wismut GmbH 2011). One could consider this as a large experiment in the relation of arts to mining. Unfortunately, as I stated above, it was a rather poisonous one for the artworks. As in other GDR-companies which have bought or commissioned artworks, there have been guidelines applied, motifs selected, goals and uses defined – premises which have undermined the independence and reputation of artworks and artists (Spreitz 2011, 606).

As would be the case for biased science, it is almost impossible to reintegrate artworks which have been produced under partial,



purposive circumstance into a discourse, even though some aspects of the artworks may be intrinsically interesting. Although they have been preserved and still physically exist, they are cut off from the general artistic discourse. However there are a few exceptions, those that have defended their independence in some way and may have a potential to contribute their examinations to a broader audience.

My position is not one of an art critic, but of an artist, a practitioner – my main interest is not in judging artistic quality, but in the conditions under which artists made artworks. The examples aim to make this point: Any preset, forced goal or guideline concerning the premises, outcome, appearance or approach, will harm artworks, especially those that are in some way commissioned – this applies to any context, but especially to controversial issues such as mining or mine water. Of course, respectful debates and a fair exchange of views about those opinions will rather contribute to a vivid production process and are exempt from this warning.

What to do? The relation of aesthetics and ecology

Ben Valentine asked in “Hyperallergic”, a New York-based online art-magazine: “How Can Ecological Artists Move Beyond Aesthetic Gestures?” Facing serious environmental problems, he is unhappy with a majority of artworks that in his opinion are “aesthetic interventions forced onto the environment by artists with little to no deep understanding (e.g. geologic, ecologic, botanic) of the materials they are using”, representing mostly an “aesthetic, surface-level intervention, which documents well for exhibition” or another “art-world setting, be it via a gallery or a coffee table book” (Valentine 2017). Although not clearly expressed, it seems that Robert Smithson’s land artwork “Spiral Jetty” (1971) stands as a prototype for these “hollow aesthetic gestures” Valentine criticizes (Valentine 2017).

Along with Dewey and Rancière, one could argue that this critique concerns not only “ecological artists” as Valentine calls them, but all artworks. According to Rancière in the contemporary “relational aesthet-

ics” passive material is no longer devoted to active form, but new practices uniting both form and material come into being. Dewey’s request for what I would call an “informed aesthetics” would prevent such hollow superficiality, especially when dealing with environmental topics. Although I understand Valentine’s dissatisfaction, I do not agree with his assumption that a “clear, factual, historical, but compelling story for these environmental catastrophes” is needed. His last point in the article is most problematic, since he sets an emotional goal for these artworks, one which sounds more like a social campaign strategy than anything else: “it must be a story that disgusts, places correct blame, and, of course, elicits action.” It is not only manipulative to set this kind of goal, but also questionable as method: “the end justifies the means” – what is more, it would violate the freedom of art from the other side, so to speak. His subtitle to the whole article is: “If art is to be relevant to the environment, it needs to move beyond an art context to engage with the land itself.” What does “the land itself” mean? Presumably, he refers to the physical, material sphere of landscape – but as stated above, it has from the beginning been shaped by cultural practices. Therefore, I assume there is more than one appropriate strategy – even from within the very core of the art context, the art gallery. But in general the observation that there is a preference for dealing with art-specific or art-historical questions is shared by several authors (Rancière 2009b, Krolczyk and Emde 2013). Nevertheless, the question remains: what could be an appropriate approach for an artwork in an ecological context?

Art critic Tom Holert expressed hesitation about the claims being raised that art should solve environmental problems with its own resources – the resources available to art are rather politically and economically weak when compared to political and scientific institutions, he believes, are in control in the first place, plus the often requested assistance in illustration of scientific findings and scenarios is not the primary role of artists in the production of knowledge (von Borries, Hiller, and Renfordt 2011). In this sense, for Rancière it would not be in “the land itself” that art has its most valuable political contri-



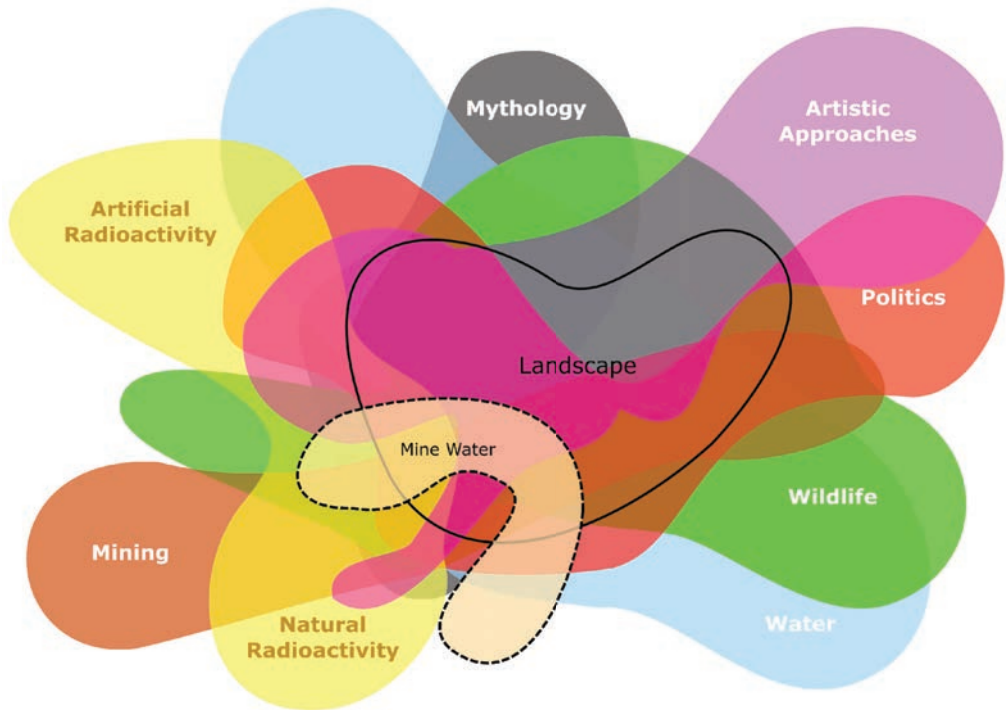


Figure 1 schematic diagram of subjects, topics and disciplines concerned with mine water – the representation aims to show interaction, intersection and overlap up to and beyond recognition, but is non-exhaustive

bution to make, but in the mode of “as if”, the alternative world-model, the micro-politics of neighborhood.

The following three artworks highlight examples dealing with issues related to mine water – as common artistic practice, the relation is rather associative than distinct. Each of the covers one or more subjects or topics shown in Figure 1.

Marc Böhlen – WaterBar (2012–13): WaterBar was realised as a public art installation in Singapore – a public well “designed for the post-sustainability age when clean water is simply not good enough” (Böhlen 2012). The first stage starts with cleaning municipal water: purifying the water via an anthracite filter – after that other filters are added to remineralize the water through geengineering.

Among these additional filters are “quartz-rich granite from Inada by Fukushima, home of the latest devastating high-tech catastrophe; sandstone from La Verna, Italy, where St. Francis cared for the poor; marble from Thassos, Greece, source of art and architecture and the beginning and possible end

of democracy; limestone from Jerusalem/Hebron, Israel, a place of eternal conflict and shared hopes; and basalt from Mount Merapi, Indonesia, an unpredictable, active volcano.” (Böhlen 2012). An “internet-scanning, text-processing control system” (search-bot) checks online daily and mixes water in reaction to the news on water related issues, by circulating water through those filters releasing “trace elements of the minerals and rocks” according to the “catch of the day” (Böhlen 2012). The project highlights the fact that water not only has an origin, but also a story that goes along with it. The story of the places water has touched contributes to an intangible quality that can not be measured with an ICP. For Böhlen, most technologies focus on “risk minimization”, which is suitable for survival, but with WaterBar he wants to take a further step towards “a deep culture of resource management” (Böhlen 2012).

Christina Kubisch – Unter Grund (2014): The 26-channel sound installation has been the result of an invitation by Museum Zeche Zollverein Essen, Germany. It is an acous-



tic portrait of the mine water aquifers both below the building and farther. Mine water is a mostly invisible landscape element in the whole Ruhr area. Sound artist Christina Kubisch and her team have recorded above and below surface engine rooms, pumping stations, water plants, ponds, swamps, pit cages, drainages – mainly with contact microphones and hydrophones (Fabian Lasarzik und Gruenrekorder 2014). These sounds have been arranged into a 23:47 min composition of documentary water and engine sounds creating their own mine water world. Rhythmic sounds and deep noises are present, which left curator Lasarzik with the impression the subconscious of the post-mining landscape spirit and movement had become perceptible. Kubisch’s work in general deals with invisible, mostly technically altered realities; she offers an alternative perspective on the world. In this case, she was mainly working on “the so called ‘eternity costs’ [...]. The pumps have to run forever or the Ruhr area will become a jungle.” The sound art label “Gruenrekorder” released a CD, with a new composition made from the recorded material including a piece called “Vision”, which is “an ironic view into the future in case the pumps will stop” (Kubisch 2018). http://www.gruenrekorder.de/?page_id=14340

Mari Keto/Erich Berger – Inheritance Project (2016): Artist Erich Berger and jewelry artist Mari Keto have created a special heirloom intended to emphasize another approach to our nuclear heritage and its deep time effects. They have crafted a magnificent and delicate necklace made from gold and Thorianite from Myanmar, Thorite from Madagascar, and Uraninite from Congo. It is made to be considered a heritage which requires a special care, inscribed as a set of rules and rituals that represent basic measurements of radioactivity. One is not allowed to wear it, until the outcome of measurement rituals using special measuring tools show certain definite signs that the level of radioactivity is low enough. The jewelry and tools are stored in a stackable concrete container. The tools are a Fenjaan water clock, an electroscope and other “accessories to operate the

electroscope: spare gold leaves which are the indicator for the electrostatic charge, and an acrylic rod on a piece of rabbit fur to electrostatically charge the electroscope”. (Berger and Keto 2016) The electroscope was the first instrument devised to “register and measure the phenomena caused by radioactivity”, famously used by Marie and Pierre Curie in their laboratory (Berger and Keto 2016, Carpenter et al. 2016).

The “Inheritance Project” exercises and gives an impression of a possible experience regarding theories about long-term nuclear waste storage projects that aim at “Constructing Memory” such as the Nuclear Energy Agency. Though these storage projects usually focus on high-level radioactive waste, the necklace is made from low-level radioactive minerals. But, tailings ponds, in particular, are considered large, low-level radioactive waste facilities that will need special care or at least a restriction of use for a time beyond historical expertise. Experts such as Högberg and Holtorf who work on Archeology as Future studies, emphasize that these long-term communications will not work as a “transfer of knowledge” (Högberg and Holtorf 2018). <http://inheritance-project.net>

Preliminary conclusions and suggestions

Artworks will not replace the tasks of scientists or administration. Their strength is their narrative, cognitive and Utopian qualities, which require the guaranteed, full freedom of art. In order to be relevant within the context of changed environmental systems such as mine water, the following non-exhaustive enumeration of criteria will be useful for the production of these artworks:

- to work within informed aesthetic decisions on a “conceptual level”
- to not treat material as passive substance
- to reflect the artists own social, cultural and biologic position
- to make works both site-specific and appropriate to their subjects
- to open up a new cognitive layer in an issue



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