

IMAGINATIVE POWER

The role of art in environmental communication

Hanna Bergeå, Andreas Brutemark, Sofie Joosse, Daniela Kreber, My Lindh, Daniel Mossberg, Fanny Möckel & Rebecka Wigh Abrahamsson

Swedish University of Agricultural Sciences, SLU Department of Urban and Rural Development Division of Environmental Communication December 2023



Mistra Environmental Communication mistra-ec.se

IMAGINATIVE POWER. The role of art in environmental communication

Project group (in alphabetical order):

Hanna Bergeå, Swedish University of Agricultural Sciences, Department of Urban and Rural Development, Division of Environmental Communication

Andreas Brutemark, Biotopia,

Sofie Joosse, Swedish University of Agricultural Sciences, Department of Urban and Rural Development, Division of Environmental Communication

Daniela Kreber, Swedish University of Agricultural Sciences, Department of Urban and Rural Development, Division of Environmental Communication

My Lind, Artist

Daniel Mossberg, CEMUS

Fanny Möckel, Swedish University of Agricultural Sciences, Department of Urban and Rural Development, Division of Environmental Communication

Rebecka Wigh Abrahamsson, Uppsala Art Museum

© 2023 (Project group members)

Images on the next two pages:

Image 1. Representation of the first two iterations of the project, Daniela Kreber. Image 2. Representation of the last iteration of the project, Daniela Kreber.



REVOLVE

523

nuseum tràde

(C. Yile Methodoli, Songa Franche, conjugate installing builder, Love Jerier Ja, Henkowski, Songa et al., Utigate Review and et al. Utigate Review and et al. Utigate Review and et al. The provided structure are not mere. A share of the second of the second structure field and an et al. (2014).

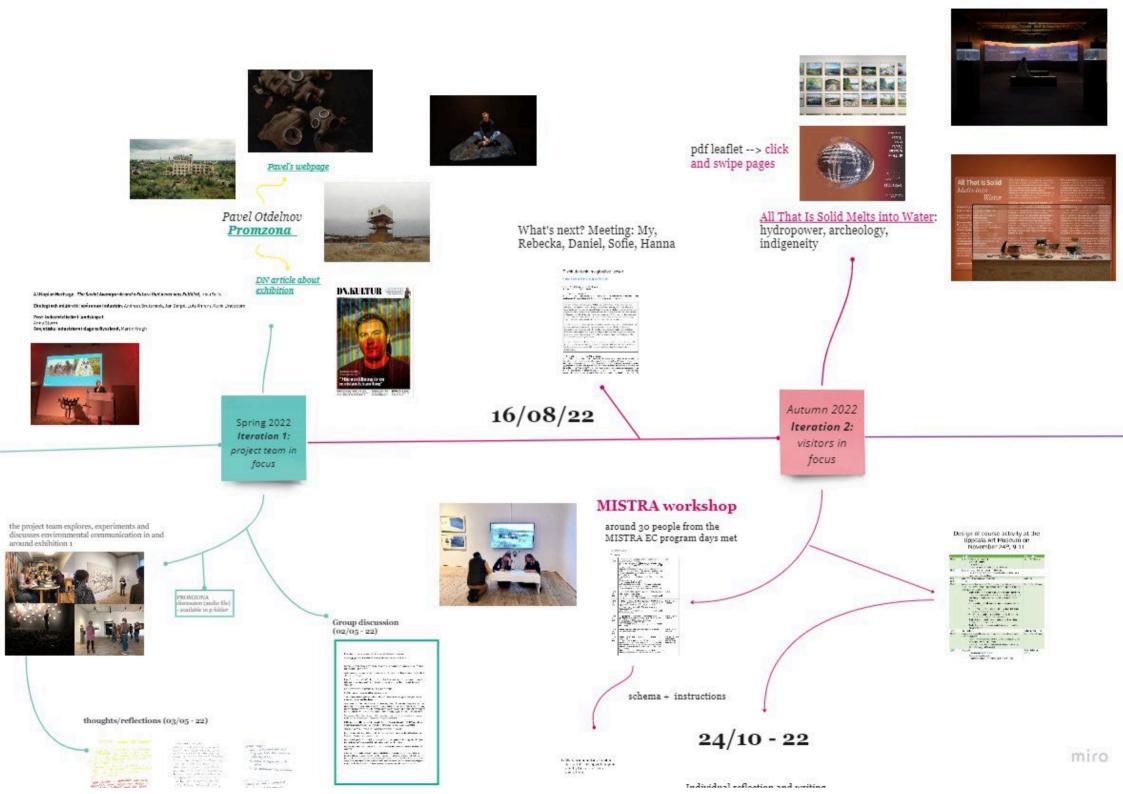
leckninger möte inför utstöllningen med medverkande 221219

let Grofe eaver se Likord I lage west fabre familier. Politics lancer, Marson and Oscilla advantation, classical advantation, Politics, Inscent, Marson and a Oscilla advantatio, classical adv Sanzaletha yoking ond farlori. Sakot ornafiji, kaskat as pasikora. Yakawar wit Pay with discort temps alter. ones. Activate coming fairt the Latence Promited Silver Rel Non-human Portfelien "Mediation": Maetificalitik tels am riteter i harrocen Budwiger entegneta Industrati datinction caregă carter. Nece em anne endre cet? Net ou starma Neg Heldolls, Faching doorving word, introde to forest dateit, at our ine or shapes. I relieve ad ask web as its. erne solat sien die te sident gen minnisken inte han st. (Ved in Isis inzupit ingagered i mijdiriger läger. Helle was herred

erblengs car (diet til til juri. Veenside show: D4D tailt if off par first brin.

Round Lack of courses of facings. an-lasts internationality monotikant (5

Manise Varier of specific for on all scalings field days. For factions, 1974 dilegislation for participanta Risa 18100 geographic. iner i logaling Brown, what reactioned the ords of the carts? Viscol vectorists have Orb



Svensk sammanfattning

Den här rapporten beskriver ett pilotprojekt där vi har utforskat konstens kraft att föreställa oss och skapa mening inom miljökommunikation. Arbetet har skett på initiativ av Uppsala konstmuseum för att i relation till en utställningstrilogi fördjupa kunskapen om hur museirummet och mötet med konst kan vara en arena för en annan sorts samtal kring klimatomställning miljöfrågor ur olika perspektiv. Projektgruppen har varit sammansatt av personer med olika perspektiv på frågan och olika grad av inblandning i arbetet med de tre utställningarna: Hanna Bergeå (forskare i miljökommunikation, SLU); Andreas Brutemark (enhetschef, Biotopia); Sofie Joosse (forskare i miljökommunikation, SLU); Daniela Kreber (forskningsassistent i miljökommunikation, SLU); My Lindh (konstnär, representerad vid den tredje utställningen), Daniel Mossberg (samverkansansvarig och kurssamordnare, Cemus), Fanny Möckel (forskningsassistent i miljökommunikation, SLU); Rebecka Wigh Abrahamsson (intendent/curator, Uppsala konstmuseum, curerade två av de tre utställningarna). Under närmare två års tid har gruppen träffats för att diskutera hur människor upplever och skapar mening kring konstutställningar som berör olika miljöaspekter. Vi har särskilt intresserat oss för och experimenterat med kommunikationsmetoder som komplement till utställningarna för att stötta reflektion och samtal som inbjuder medborgare att tänka, känna och svara på samhälls- och miljöutmaningar på nya sätt.

Rapporten beskriver det arbete som har genomförts och några av de insikter som gjorts. Den är främst tänkt läsas av de inblandade som ett sätt att minnas vad vi arbetat med och hur diskussionerna gått, och för att ge en ögonblicksbild av var vi står idag i vår förståelse och vårt undersökande av frågorna. Arbetet har organiserats som en s.k. think/do tank och finansierats av forskningsprogrammet Mistra Environmental Communication. Vi hoppas kunna fortsätta utveckla dessa tankar på olika sätt under den andra fasen av samma forskningsprogram, vilken tar sin början januari 2024.

Table of contents

1.	Introduction7			
2.	The Exhibitions			
2.1	Exhibition 1 Promzona, Pavel Otdelnov			
2.2	Exhibition 2. All That Is Solid Melts into Water - hydropower, archaeology,			
	indigenous peoples10			
2.3	Exhibition 3. A Posthumous Journey into the Future12			
3.	Approach14			
4.	Findings			
4.1	Research question 1 - How do visitors, artists and curators experience and make			
	meaning of the art exhibitions?17			
4.2	Research question 2 - What kind of methods could be developed to support			
	reflections and conversations to invite citizens to think, feel and respond in new			
	ways?			
5.	Discussion			
5.1	What are future questions to explore?24			
Refer	References			

1. Introduction

A convincing majority of the Swedish population understands climate change to be a real threat (95% of the population) and finds that major societal changes are needed (86% of the population). Policy focuses on industry and technical solutions to mitigate climate change, and has not yet been able to sufficiently translate and institutionalise climate transformations in our society and people's everyday lives. As a result, many people feel frustrated and confused about a growing orientation towards technocratic solutions and neglecting deeper societal change processes.

Many artists and art institutions are interested and work with the tension between the feared and felt crisis and the confusion and frustration that it is not addressed enough. Of course, art rarely offers set solutions to how environmental issues should be dealt with, but the art itself and the museum setting can offer a mental and physical space for collective or individual reflections.

This project explored how art can facilitate such reflections and conversations, inviting citizens to think, feel, respond to socio-environmental challenges in new ways. The basis of the project was a series of three exhibitions that Uppsala Art Museum organised in 2022–2023, which examined different perspectives on environmental challenges through the lens of modernization, science, and post-industrialization.

With a diverse group, including a curator, an artist, a museum director and researchers, we did a first exploration of the following research questions:

- 1. How do visitors, artists and curators experience and make meaning of the art exhibitions?
- What kind of communication methods could be developed in complement to the exhibitions to support reflections and conversations to invite citizens ways to think, feel and respond to socio-environmental challenges in new ways.

Beside a clear societal relevance, the project is also academically relevant as art so far has been underexplored in the academic field of environmental communication. Here focus has rather been on for example environmental governance, media and science communication. The research programme Mistra-EC is one of few initiatives where art is being explored as environmental communication.

2. The Exhibitions

The exhibitions that were included in the project dealt with pollution, climate change and indigenous people. They also elaborated on how imagination and historical perspectives can be a way to gain new knowledge, and to explore new boundaries with species and ecosystems around us. The art in the exhibitions span from documentary and self-experienced perspectives to fictive and science fiction-storytelling as a way to create powerful counter-images to the current crisis of carbon-industry, extractions of natural resources and loss of biodiversity. The three exhibitions together create a platform that opens for a larger debate on human-nature relationships.

2.1 Exhibition 1 Promzona, Pavel Otdelnov

The strength of the Promzona exhibition was the artist Pavel Otdelnov's autobiographical approach to the project, which provided credibility and engagement. The exhibition focused on the chemical industry in the city of Dzerhinsk, Russia, addressing the working environment and emissions that occurred from the 1930s to the present day. The communist utopian dreams of a new society had a dark side for the individual concerning the right to health and freedom of speech. This dissonance was something the artist explored, often by painting industrial buildings as ruins from a bygone empire. The exhibition illustrated on a broader level the modern project's blindness to anything obstructing "industrial development," such as preserving and seeking knowledge about biodiversity. Pavel presented this through satellite and drone footage showing extensive chemical waste dumpsites.

Images on the next page, top down: Pavel Otdelnov during the installation of the exhibition Promzona, top down; photographer Rebecka Wigh Abrahamsson; Pavel Otdelnov, Wall of Fame installation 2015-2019; Pavel Otdelnov Ruins #1, 2015.



2.2 Exhibition 2. All That Is Solid Melts into Water - hydropower, archaeology, indigenous peoples

This group exhibition with ten artists/groups curated by Rado Ištok and Mariam Elnozahy included archaeological objects, archival films, and several newly produced works. Through the exhibition's global perspective, the discussion deepened about the ambivalent effects of modernism, where welfare has been created at the expense of minorities losing land/home and the right to cultural heritage. The focus was on the expansion of hydropower in Northern Sweden/Sapmi, as well as the Aswan High Dam in Egypt/northern Sudan, making the comparison between Nubian and Sami ethnic groups interesting. The discussions highlighted how the experience of expansion of hydropower is often blurred with other abuses against indigenous peoples. In the case of the Sami, it involved forced relocations, the loss of language through nomadic schools, the forestry industry, and the expansion of the mining industry. In Norrland, today, all but two rivers are dammed by hydropower. Anja Örn emphasized in her interpretation "In Memory of a River" the silence and the loss of sensual aspects of the rushing water, where biotopes in and around the rivers have completely disappeared. The Sami artist Katarina Pirak Sikku pointed out, based on conversations with biologists, that to restore biological diversity in these dammed rivers, a new ice age is needed. The exhibition provided a multifaceted view of the issues, and perhaps the individual interpretations with narrative features had a stronger impact on a majority of the audience.

Images on the next page, top down: Artists and curators from the opening: Fadlabi, Rado Ištok, Mariam Elnozahy, David Larsson, Jesper Nordahl, Katarina Pirak Sikku and Anja Örn in front of the work Njuorravuolle and Snavva by Katarina Pirak Sikku (photographer Ece Karakas); Ali Cherri, Of Men and Gods and Mud (photographer Pär Fredin); David Larsson, Diagram of the Ångermanälven river (photographer Pär Fredin).

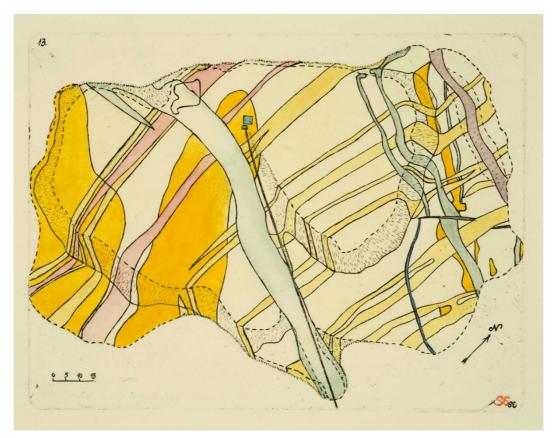






2.3 Exhibition 3. A Posthumous Journey into the Future

The concluding exhibition in the trilogy departed from the documentary approach. A Posthumous Journey into the Future was based on Sten Eklund's fictional story "The Secrets of Kullahuset" and the year 1849, to, together with contemporary art, ask questions about the imaginative power in times of climate change and lost biodiversity. The exhibition related to different temporalities - past and future and a "what if"? It dealt with both industrialization and the development of the fossil society but also how this development is connected to colonial and extractivist structures. Through performative gestures, sculptures, and installations, the works created new types of relationships to the materials around us. Several works addressed biological diversity, the more-than-human and seeing solidarity with microorganisms and fungi and the life-giving function of compost. In this exhibition, curated by Rebecka Wigh Abrahamsson, and with My Lindh as one of artists, the discussions in the think/do tank were influencing some of the decisions around the exhibition.



Sten Eklund, The Secret of Kullahuset, 1971, hand colored etchings



Signe Johannessen, Re-resurrect, mixed media, 2023.



My Lindh, There was now, site-specific text fragments in charcoal, 2023.

3. Approach

The project used an iterative learning approach, in which each of the three exhibitions formed the basis for an iteration (see image 1 and 2). Each iteration entailed: 1) exploring and experiencing the exhibition with different participant groups; 2) reflecting and analysing together with the different participants; 3), learning from this iteration; and 4) coming up with ideas for adjustments for the next exhibition/iteration. For each iteration we included new groups of participants:

- Iteration 1 consisted of the small circle of the project team, but also included researchers and teachers from the division of Environmental Communication in a workshop to explore the relationships between the exhibition and environmental communication. (see image 1)
- Iteration 2 opened up to include societal and academic participants from the research programme Mistra Environmental communication, and master students in Environmental Communication and Management, through exhibition visits in combination with exercises and surveys. (see front picture)
- Iteration 3 included the perspective of artists, who at an early stage already reflected within the project as part of their creation of the exhibition and visitors of student guided tours. (see image 2)

Table 1. Process, activities and output of the project.

TIME	ACTIVITY
Spring 2022	ITERATION 1: focus on internal discussion in the project team, and with close ec-slu colleagues
	Exhibition 1: Pavel Otdelnov – Promzona (https://konstmuseum.uppsala.se/utstallningar/tidigare-utstallningar/utstallningar-2022/promzona/)
	 The project team explored, experimented and discussed environmental communication in and around exhibition 1
	 Workshops with teachers and researchers from the division of Environmental Communication at SLU
	Panel talk on PFAS and Environmental lawPlanning for exhibition 2 and activities
	Analysis and discussion based on our research questions
Sept 2022	ITERATION 2: focus on visitors
	Exhibition 2: All that is Solid Melts into Water – Hydro-Modernities and Lost Worlds (https://konstmuseum.uppsala.se/en/exhibitions/past-exhibitions/Exhibitions-2022/all-that-is-solid-melts-into-water-hydropower-archeology-indigeneity3/)
	 The project team explored, experimented and discussed environmental communication in and around exhibition 2
	 Workshop with societal and academic participants of the research program Mistra Environmental Communication, workshop with students of the master in Environmental Communication and Management
	 Presentation at the breakfast seminar by the Swedish Centre for Nature Interpretation Planning for exhibition 3
	Analysis and discussion based on our research questions
2023	ITERATION 3: focus on artists
	Exhibition 3: A Posthumous Journey into the future (https://konstmuseum.uppsala.se/globalassets/konstmuseum/bilder-media/utstallningar/2023/en- postum-resa/pdf/en-postum-resa_webb-eng.pdf)
	 The project team explored, experimented and discussed environmental communication in and around exhibition 3
	 Reading and discussing the diary of the participating artist about her creative process.
	Three panel talks and several student-guided tours (<u>https://konstmuseum.uppsala.se/kalendarium/hur-skapar-vi-handlingsutrymme-i-</u>
	 <u>klimatfragan/</u>) Survey with participants in the guided tours
	 Curator Rebecka Wigh Abrahamsson presented insights from the work at the Swedish museums' "spring gathering" 25-27 April in Västerås
	 (<u>https://sverigesmuseer.se/varmoten/</u>) Presentation at the International Conference for Environmental Communication in
	June, Hanna Bergeå and Sofie JoossePlanning for synthesis and final report
	Analysis and discussion based on our research questions

This project was a transdisciplinary collaboration, bringing together curators, artists and researchers to collectively explore the research questions.

Throughout the project we generated a variety of empirical material, see table 2. The material consists: auto-ethnographic material (e.g. diary entries) produced by the artists, curators and visitors; interviews with artists, curators and visitors (performed by the project team and students); and participant-observation of the exhibitions and the ensuing panel debates and other modes of communication created around the exhibitions (performed by the project team and the students). We used this material for the discussions in our project group, and for the explorative analysis for this project report.

EMPIRICAL MATERIAL	NO.
diary entries produced by an artist	3
interview with an artist	1
panel debates moderated and performed by the project team members	2
workshops with students, colleagues and project team	3
student exhibition guidance - follow up survey responses	14
written reflection texts by students, colleagues and project team	58 (13 from workshop 1, 26 from workshop 2 and 19 from workshop 3)
recorded discussion	1
curator's lecture in connection to the project	1
webinar organized by a project member in relation to the project	1
conference presentations	2

Table 2. Overview of empirical material generated and used in the project

4. Findings

Below we discuss our findings in relation to each of the two research questions. We structure the text along pressing questions that we or the visitors posed, which we think are relevant to highlight in relation to the research questions.

4.1 Research question 1 - How do visitors, artists and curators experience and make meaning of the art exhibitions?

"Is it art or fact?" In written reflections and follow-up surveys, the question visitors repeatedly took up was the tension between fact and fiction. In relation to the Promzona exhibition, several mentioned the artwork of a fictive mutant and wondered: "If the mutant was not real but fake, how much of the rest was also made up?!" (see Image 3 below) The fact/fiction of the exhibitions seemed to trouble and puzzle them.



Image 3. Pavel Otdelnov Mutant, 2016, Installation in mixed media; from: <u>https://www.promzona.site/sand</u>

The three exhibitions had different themes and also took different approaches to fact/fiction. In particular the first and second exhibitions, integrated factual information, e.g., facts about the chemical industry in the Promzona exhibition or the maps and figures around the hydropower of the river Ångermanälven in the All That Is Solid Melts into Water exhibition. This information accompanied the exhibitions' objects, and invited visitors to "make meaning" of the art in relation to this factual information.

In all of the exhibitions, factual information was presented alongside imaginary elements, but the balance between them differed. The imaginary was especially prominent in the third exhibition.

Here, focus was on the power of imagination amid the challenges of climate change and biodiversity loss. Various artists speculated about the future and articulated possibilities of what could be and what might evolve as ways to encourage individuals, communities and societies to envision alternative, more sustainable, futures. This was visible in the example of Sten Eklund's fictional story The Secrets of Kullahuset, in Johannes Heldén's archive of fictitious extinct species and My Lindh's short charcoal texts placed on the walls of the museum that played with different temporalities. This approach invited the visitor into a reflective mode, looking at our current society as an explorer and researcher from the future.

From our investigations and experiments in the various iterations we learned that people have different interests in facts and imaginaries. Many of the students and research colleagues who experienced the second exhibition seemed to focus on the 'facts part' of the exhibition. When asked to share their experiences, many referred to the factual information and not their experience of the artwork. Some of them even wished for more facts, especially in relation to the second exhibition 2: "I felt the exhibits needed additional information to the 'labels'." Our respondents also expressed that they wanted to talk to the artist to learn more from them about the facts/fiction.

The wish for facts is rare for the art museum. The museum's regular visitors tend to focus on the aesthetic and art experience. Why was it different during this project? One reason may be that we interviewed people about their experiences. Talking about these experiences during or straight after is not always an easy task, because the exhibitions and artworks often mean to unsettle or give new perspectives. When asked directly it may then be easier to think of the facts then the perhaps ambiguous experience, as one student said: "I felt a bit under pressure to come up with coherent answers to questions. Usually I'd let things stew for a while in the art gallery". Another reason might be that the visitors were different from the regular museum visitors; many of the exercises were done with researchers and students in the field of Environmental Communication. For this group, sustainability and environmental concerns were the common denominator, instead of an interest in art. Yet another reason might be that the second exhibition had classes of students visiting, many not very used to going to the museum, and schooled in academia (arguably schooled in fact rather than fiction). Based on these discussions and responses, we wonder if it could be worthwhile to - in complement to the exhibition - give the visitors some help in finding relevant sources, e.g., through providing websites of relevant authorities, reports. Or, does this interfere with the art experience?

Somewhat surprisingly, the student guided tours in the third exhibition were perceived to be stronger on fiction than fact. This surprised us, as these tour guide students linked their environmental/sustainability research to the exhibition! To our question "What thoughts has the exhibition evoked in you?" we got much more reflective answers than in the other exhibitions, such as: "Our relationship with nature and how we see it, makes you wonder what it would be like if the relationship was different and what causes this relationship" and "A good chance to think outside of the box about our place in the world".

Was it the exhibition's focus on the imaginary as a topic in itself that opened up a space for these thoughts? Could our survey question itself have influenced the answers: "In what way do you think that imagination and the imaginary could play a role in climate transformation?". Whatever the reason, In their answers, many visitors recognized the role of the imaginatory as pivotal and can help to better understand ("create awareness by creating something creative that is also a warning") but also to imagine alternative futures ("imagine other courses of action. Find new, alternative solutions to problems").

Is it problematic to make art out of socio-environmental catastrophes? In our workshops and surveys several people raised this question. In one of the exhibitions, a beautiful video was made of the highly polluted waters, installed with a dystopian sound score. The video was mesmerizing and people described to us how it was fascinating to look at, and how pollution became beautiful. But, was the question, does this diminish severity? Can you joke or make beauty out of pollution or social misery? While people raised this question, we did not really find an answer in our material to it, but in a broader context the artist Pavel Otdelnov played with different aesthetic experiences and emotions in the show Promzona, both beauty and disgust in order to engage the audience in the topic, but also to create mixed feelings. Perhaps these questions can be answered partially by another observation from the participants, namely that this art alienates and confuses and thereby creates some distance between the observer and the topic, inviting for a new and possibly more critical engagement with it.

How much interpretation or guidance is needed for experiencing the exhibition? We find different answers to this question in our material. For example, many participants appreciated the student guides. Yet, they did so for different reasons. Some found that the guided tour helped them see things they would not have seen on their own. Others liked the personal and deep, thematic interpretation. One visitor was worried that the guides spoke about matters they were not schooled in.

4.2 Research question 2 - What kind of methods could be developed to support reflections and conversations to invite citizens to think, feel and respond in new ways?

In the section above, based on our activities and discussions in the project, we explored the experiences of visitors, here we explore if and how communicative interventions can support the experience, and if such interventions may help people to make the experience meaningful also outside the walls of the art museum. Our work has been very explorative, so we have no definite answers, but rather insights and thoughts that we want to share.

The methods we tried out were:

- guided tours with different themes
- experiencing the exhibition with different instructions, e.g. as a group vs. alone, with an overarching vs. specific focus on the artwork, guided by questions probed on the topics or the exhibition etc.free writing sessions after having experienced the exhibition
- discussion sessions
- follow-up surveys.

In the first iteration and in relation to the first exhibition, we organised a workshop with research colleagues from the field of Environmental Communication. After a joint guided tour, and experiencing the exhibition, we gathered in one of the rooms of the museum and spent time on an individual freewriting exercise. From other projects, we had learned that freewriting for many people can work as a good way to gather thoughts, formulate thoughts and deepen them (see also Milstein et al. 2023). The exercise was open, but we encouraged them to think about three questions, namely: "What thoughts or emotions does this exhibition evoke in you? What interesting or alarming questions would be worth highlighting more than what is already done from an Environmental Communication perspective? Do you have ideas about activities that could be implemented to address these questions with/for the visitors?" As we believed the exhibition would leave a strong and for many an emotional impression, we thought it would be good to first invite people to spend some time by themselves thinking through what they had just witnessed. The individual writing exercise was also meant to help people prepare for the discussion. The group was divided into two subgroups (6 and 7 people), to discuss.

The participants said that the individual writing exercise was very useful to formulate thoughts and get some time for processing the experience of the exhibition. They also stated that the two exercises together deepened their thoughts of the experience. The freewriting exercise took around 20-25 minutes. This was more than we had planned for, and some people still would have liked more time, while others were more than ready by then. Of course people will always need different lengths in writing time. Rather than letting all finish writing we decided to stop when energy in the room was high, to start the discussion. The discussions were animated, and the participants expressed how interesting and valuable it felt to together talk about the exhibition.

Is it problematic to force words on art experiences? Through our interventions of discussions, workshops, surveys and associative writing exercises, we invited people to put words to their experiences. Our idea here was to support their processes of meaning making both individually (for example through writing exercises), but also collectively (e.g. through discussions). But, could this inadvertently flatten the experience of the art and suppress parts of the experience, like feelings, that for some might take longer to process? Does this perhaps focus too much on the art experience as only a discursive practice? We did get some cues that this may be the case, e.g., from the earlier cited student: "I felt a bit under pressure to come up with coherent answers to questions - usually at the gallery, I'd let things stew for a while". We think we should bring this concern along to future iterations, where verbal processing is complemented by other means.

In the second iteration and related to the second exhibition - based on the experiences from the first iteration - we organised two workshops. The first was with 30 colleagues, researchers and societal partners from the research program. The second was with 30 students of the environmental communication master program. Here, we tried out different setups to create different engagement and meaning making processes for how to relate to the exhibitions. For example, some groups were instructed to randomly stroll around and experience the exhibition without preparation or preunderstanding. Another group was asked to think of themes like societal change, planetary crisis and environmental injustices, when visiting the exhibition. Yet others were asked: "What questions, feelings, and ideas does the exhibition evoke in you?", "What do you believe the artists want you to think and feel?". After the visitors had in these different ways engaged with the exhibition, we created groups with people who had gotten different instructions. They then discussed how these different methods influenced their experience and meaning making.

In the third iteration, we organised in total 10 "dialogical tours" of the third exhibition. These were conducted by student guides from SLU and Uppsala University, from environmental humanities, literature studies, aesthetics, environmental communication, landscape architecture, at master or doctoral level.

Their task was to create a tour based on their subject knowledge, covering 3-4 works in the exhibition. Thematically, the tours focused on climate justice, biodiversity, climate fiction, and the idea of progress in relation to climate change. Each student guide worked together for the tour with a guide from the museum. The art museum provided support with knowledge about each artwork.

The tours were highly appreciated by visitors, the museum and the guides themselves, and worked well in their dialogical format with the visitors. The tours also attracted a partially new and younger international audience. In survey responses, several participants felt that the guided tour provided deeper insights than a typical visit and facilitated a more environmentally conscious perspective, encouraging visitors to engage with the artworks in novel ways. When asked "In what way has the guiding influenced your experience of the exhibition?" one participant answered: "It became easier to grasp the works, and it made me think more from an environmental perspective than I think I would have otherwise. Similarly, another answer was: "I got to know way more about the artists and their thoughts than I normally would". Overall, there was an appreciation for seeing the exhibition with "new eyes". We believe that these reflections underscore the potential of guided tours in museums to stimulate critical thinking and emotional engagement with climate-related issues. The visitors' responses suggest that such reflections can enhance the longevity of the art experience by fostering a deeper connection with the subject matter.

So, How can the experience at the museum invite citizens ways to think, feel, respond to socio-environmental challenges in new ways? Here we base ourselves on insights from transformative learning research: for an experience to become transformative, it needs to be made meaningful to the person's (society's) daily life. But how can an art experience be that? It can of course be that completely out of itself, because of for example the strength of the experience, or the unsettling nature of it that keeps on bugging the visitor, that the visitor tries new ways of thinking/feeling/responding. And there are of course many examples of people having exactly such art experiences.

In the project group we wondered if communicative interventions could strengthen the art experience. We specifically asked ourselves how the art experience could follow the visitors home, as one way of thinking through how the experience can be made meaningful for everyday life. We actually never developed a method that 'materially' followed home, instead we tried methods that could in some way strengthen the experience. Here we talked about 'lingering' in the experience, with the hope that the experience would stick even more with the visitor and indeed follow home in thought, to be made meaning of when doing the laundry, during dinner or while commuting to work. During the whole process, we did different experiments to stimulate this lingering. We investigated this lingering through different methods in each of the exhibitions. The methods of associative writing, the discussion groups and all other intervention were all trying to make the visitors linger.

Some visitors raised concern with the interventions. Three arguments were recurring. First, the discussions could diminish and limit the individual art experience to the paths trodden and the thoughts outspoken in the discussion. Second, and related, such discussions could homogenize the experience, decreasing the variety of interpretations and engagements. Third, and raised in relation to the first exhibition that was for many people quite disturbing, the discussion about the exhibition runs the risk of the art experience and suppressing the emotions originally felt about the exhibition as we comfort and confirm each other's viewpoints in the conversation. This feedback is incredibly important and we will like to take it with us to upcoming projects!

The overwhelming majority of the participants, however, expressed that they much enjoyed the collective exercises, guided tours, workshops and discussions, and that these helped them make meaning. Most visitors in this study found that discussing their experience with others was very important for interpretation, and processing of the experience, and for the experience to remain with them. The design in the workshops of first experiencing and individually processing and at a later stage getting into facilitated dialogues with others was valued by most. Here, the individual reflection was seen as an important step to prepare for opening up to others, for letting things land in yourself before you share. Respondents told us it was after that step, that they felt most keen to share with others, making meaning together, challenging each other and seeing the experience from a new perspective. We observed many keen and engaged discussions on the exhibitions, about the art itself, life and beyond. These are examples of art's imaginative power.

5. Discussion

How did this transdisciplinarity work in practice? This project was explicitly organised as a transdisciplinary, short term project (see section 3). At the end of the nearly two-year project we, all participants, reflected on this process, how we felt it worked and how we learned through this collective work.

It was clear that we all had different roles, expertise and background. Such diversity has created various perspectives, which has led to a lot of "aha! moments" and new thinking. Moreover, this project was differently integrated in the daily work of the different participants, for example the curator and the artist were both highly involved in the making of the exhibitions that we studied together.

Some members of the group had been part of the proposal writing (the two researchers and the curator from the art museum). For them, the research questions had been the result of a collective process of distilling down questions of different degrees of practice to more overarching questions about meaning making. Throughout, we have bounced back and forth between questions about the topics of the exhibitions (environment, change, cultural heritage, justice etc) and questions about processes of meaning making and lingering etc. This has been characterized by exploratory moves, where no one knew from the start neither what to find out, nor the process for doing this. For the people joining later the research questions and the freedom and limits of the setup could perhaps have been more carefully communicated in order to understand their role, especially since they had weaker incentives to engage as being less dependent on the project and the concrete exhibitions.

The artist and curator express the curiosity and respect for each others' perspectives in the group as key factors for success. Also, the continuity that in fact was possible through the nearly two year project enabled us to make these iterations to progress in our experimenting, while applying it on the three different exhibitions, functioning as stepping stones for our project's themes to progress.

5.1 What are future questions to explore?

Actually, while we did lots in this project, and learned so much, it feels like it is only the start of the exploration of the questions that we had formulated in the beginning. We feel that it would especially be productive to further investigate the second question "What kind of communication methods could be developed in complement to the exhibitions to support reflections and conversations to invite citizens ways to think, feel, act and respond to socio-environmental challenges in new ways." This TDT has provided us with many insights and ideas, theoretically, methodologically, practically and analytically, to take up a challenge for some more extensive research in this topic.

- How can we work with lingering? On the basis of our first exploration, more focused interventions could be done.
- Our interventions have been rather focused on the discursive, are there other communicative interventions that can help processing (i.e. lingering) such as adding creative workshops on art dance or poetry for instance? How to balance the need for and the expectations on facts when exhibitions are on the topic of environmental issues?
- How to balance between the desire from visitors to learn about the intention and interpretation from the artist, and the artist leaving this to the meaning making between the visitor and the artwork? ("mellanrummet")
- How can research (Environmental communication) and fine art (amongst other creative branches) improve the media and political discourse and result in broader societal engagement in climate change issues without losing complexity?
- A museum is a space for recreation at the same time as it has credibility in society compared to other societal actors (Ardelius, 2023). In what way does the museum context as an aesthetic, open and social space matter for how people meet environmental issues compared to when people come across these issues in other contexts like commercial spaces, or e.g. at their workplaces?

References

Ardelius, G. (2023). *Respektera museernas oberoende och professionalitet*. Commentary from Sveriges Museer.

Milstein, T., Thomas, M.O, Hoffmann, J. & Carr, J. (2023). Even I am a Part of Nature": Unraveling the Human/Nature Binary to Enable Systems Change, *Environmental Communication*, 17:4, 421-436, DOI: 10.1080/17524032.2023.2199946.