

---

# Ocean ArtScience and the Exquisite Corpse Process

Developing new Insights, Surfacing Values and Building  
Community through a Participatory Art Process

---



Julia Jung  
7 March 2022

# Table of Contents

Acknowledgements	3
Executive Summary	4
Introduction	5
Research aims and origin	6
Project origin	6
Research questions	7
Overview of the Exquisite Corpse Process	8
Theoretical background	8
Description of the Exquisite Corpse Process	10
Methodology	13
Data collection and analysis	14
Results	16
Insights about hypoxia	16
Identity as a scientist and research practice	19
Connections among participants	21
Surfacing values and perspectives openly	24
Creative expression and the artistic process	26
Discussion	28
Developing new insights	28
Surfacing plural perspectives	30
Building relationships	32
Limitations and Opportunities	34
Conclusion	36
References	37
Appendix 1: Facilitation Email Templates	45
Appendix 2: Invitation for Participants	54

# Acknowledgements

---

This research project was made possible through funding from Ocean Networks Canada. The financial and logistical assistance provided from start to finish enabled this project to generate successful outcomes and new insights. Special thanks goes to Dr Kim Juniper and Dwight Owens for championing this project and its role for the emerging Ocean ArtScience community. In particular, I would like to highlight the tremendous support from Dwight Owens for his incredible help with organizing and conducting this project, which would have not been possible without him.

In addition, the Cobra Collective supported this project with vision and academic support from Dr Andrea Berardi and Prof Jay Mistry. Their guidance was invaluable starting with encouraging my initial ideas and helping me generate and navigate the theoretical and academic framework for this method.

Finally, I am especially grateful to all the Exquisite Corpse participants who gave their time, commitment, insight, and creative and emotional energy to this project. Engaging with you in this process has been such a fulfilling, fun and enriching experience that I appreciate deeply!

Julia Jung

---

All content within this report is attributed under the Creative Commons “Non Commercial No Derivatives” (CC BY-NC-ND 3.0) license.

Therefore, people are free :

- to share – to copy, distribute and transmit the work
- Under the following conditions :
  - Attribution – the work must be attributed in the manner specified by the author or licensor (but not in any way that suggests that they endorse you or your use of the work).
  - Non commercial – People may not use this work for commercial purposes.
  - No Derivative Works – People may not alter, transform, or build upon this work.

Report published by the Cobra Collective ([www.cobracollective.org](http://www.cobracollective.org)) in March 2022



## Executive Summary

---

The current crisis of ocean sustainability challenges requires transdisciplinary approaches that can address those issues from a holistic perspective. Additionally, the growing mental health implications of scientists working on anthropogenic impacts requires spaces that allow for more emotional sharing and expression. Communities of practice play an important role here as they can bring diverse actors together in more loose networks that allow the establishment of supportive peer-to-peer relationships. A first key step for transdisciplinary approaches and within communities of practice is to surface and acknowledge diverse actor's perspectives and values. There is therefore a need to develop and evaluate novel processes for surfacing underlying values and emotions openly.

This project used the Exquisite Corpse process, a collaborative multi-week art project, as a potential way to surface values and perspectives openly, develop new insights about hypoxia and to strengthen the emerging ocean ArtScience community of practice. Over the course of six weeks each of the eight participants created a series of three art pieces that were exchanged with other participants. At the end of the process, all projects were shared and reviewed collectively during a final party. Participants were invited to share their personal perspectives and reflections openly in this safe environment. The party was recorded and transcribed and each participant completed a pre- and post-process survey and an interview with the author.

The data were analyzed using a grounded theory approach and qualitative coding. This resulted in the following key themes: Insights about hypoxia, Identity as scientists and research practice, Connections among participants, Surfacing values and perspectives openly, and Creative expression and the artistic process. Overall, the project succeeded in creating an emotionally engaging and creatively inspiring process that allowed participants to express themselves in more personal and emotional ways and led to individual new insights. Most participants developed a more affective relation to the concept of hypoxia. In terms of relationships, the process was able to strengthen interpersonal connections between participants who had known each other before, but not for those who had only met through the process. However, it demonstrated a potential to facilitate the building of relational trust and succeeded in surfacing multiple values and perspectives. The project highlighted the transformative potential of artistic creation and engagement and stimulated reflections on the practice and identity of being an ocean scientists in a changing world.

The Exquisite Corpse process has demonstrated its potential to be used to strengthen communities of practice and help surface and express plural values in transdisciplinary teams. This function might also be useful when used as part of a larger framework of engagement for working on wicked marine governance situations or environmental management challenges. Due to the potential of artistic expression to facilitate the building of relational trust, this process might be able to support the development of more communal relationships. These types of emotionally supportive communities are especially important to create safe spaces for the expression of emotions that can help build resilience for ocean scientists working on topics related to anthropogenic impacts.

# Introduction

---

The Ocean is critical for human well-being, but is currently facing a range of complex challenges (Visbeck, 2018). Those include cumulative impacts from fisheries, land-based pollution and increased extreme ocean events due to climate change (Halpern, 2020; Halpern et al., 2019). The urgency of addressing those challenges has been recognized by the United Nations and has led to the establishment of the UN Decade of Ocean Science for Sustainable Development (2021- 2030) (Ryabinin et al., 2019). The aim of the UN Decade is to transform ocean sciences to better integrate science, policy and action and to co-design and co-deliver solution-oriented research with diverse actors and stakeholders (Claudet et al., 2020). Meeting the ambitions of the UN Decade is difficult due to the social-ecological complexity of marine systems and ocean governance. Therefore, there have been numerous calls for transdisciplinary research approaches that can lead to new insights and collaboration with diverse stakeholders (e.g. Guillotreau et al., 2020).

Collaborations between the arts and science are one type of transdisciplinary approach that has been gaining increasing attention due to its potential to explore and communicate complex socio-ecological issues from various perspectives (Clark et al., 2020; Paterson et al., 2020; Wilson et al., 2015). ArtScience approaches can help to develop new insights about those challenges, as well as express the values and perspectives held by different stakeholders by communicating in a more emotive way that holds space for the co-existence of multiple perspectives (Root-Bernstein et al., 2011). Promoting the co-existence of multiple perspectives is important as many of the current ocean sustainability challenges are 'wicked problems' (Charbonneau, 2012; Groeneveld, 2020; Khan & Neis, 2010), situations characterized by high complexity, stakeholder divergence and uncertainty (Head, 2008; Rittel & Webber, 1973). As we are currently in the so-called blue acceleration of increasing human interest and expansion into the ocean (Jouffray et al., 2020), mediating between those highly divergent actors is urgently and increasingly needed. Considering social justice and equity in this process is also especially important due to the history of discriminating against marginalised communities and user groups in marine decision-making processes (Bennett, 2018, 2019; Bennett et al., 2020). With regards to ocean science, as the UN Decade calls for more inter- and transdisciplinary research<sup>1</sup>, finding meaningful ways of collaboration is also crucial. Methods that allow the open expression and surfacing of different perspectives are the first key step for being able to navigate between them and co-design responses to ocean challenges.

Being able to openly share different perspectives requires a safe and non-confrontational environment, especially when involving marginalized actors. This can lead to developing a shared understanding of the situation, rooted in promoting the co-existence of various perspectives by acknowledging the complexity of the situation (Moreno-Cely et al., 2021). Achieving this within set project or organizational structures can be difficult due to existing

---

<sup>1</sup> <https://www.oceandecade.org/>

power imbalances and established hierarchies. Communities of practice can therefore play a helpful role in enabling the sharing of multiple perspectives as they represent more loose networks with potentially less strict hierarchies (Lave & Wenger, 1991). Communities of practice create opportunities to connect different actors across scales and engage them in shared social learning spaces that depend on alignment of activities, rules and intentions (Wenger, 2010; Wilson et al., 2015). Creating these spaces in communities of practice related to ocean challenges is especially important given the prevalence of eco-anxiety among environmental scientists (Clayton, 2018; Pihkala, 2020), and the expected norm of science as a cultural institution to act in dispassionate ways (Barbalet, 2002). Furthermore, strengthening communities of practice can help create opportunities for addressing ocean sustainability challenges more jointly among diverse actors. There is therefore a need to develop and evaluate novel processes for surfacing underlying values and emotions that can strengthen communities of practice.

## Research aims and origin

The aim of this project was to develop the 'Exquisite Corpse Process', a group-based multi-week art creation process, into a formal participatory method that can be used to surface and express multiple perspectives. The goal was to assess the potential of this method to strengthen communities of practice and develop new insights about ocean science by using this method within the emerging ocean ArtScience community.

### Project origin

This collaboration builds on the "[Ocean Art, Ocean Science: How 3 artists are using science to express care for the ocean](#)"<sup>2</sup> event celebrating Ocean Networks Canada's (ONCs) artist in residency programme in June 2021 that was co-hosted by the #VirtualBlueDecade, the University of Victoria Faculty of Fine Arts and Ocean Networks Canada. As a member of the #VirtualBlueDecade, the author was invited by Dwight Owens to moderate the event. This event led to much international interest and additional ArtScience events, such as the [Bahari Huru Ocean art festival](#)<sup>3</sup> hosted in collaboration with the Jukwaa Arts collective in Mombasa, Kenya. The additional events and outcomes from this sparked reflections for how this emerging community of practice could be strengthened by creating new meaningful ways of engagement. Concurrently, the author had been piloting the Exquisite Corpse process within different organizations and communities of practice, namely the Cobra Collective and Marine Social Science network. The Cobra Collective<sup>4</sup> is a UK-based social enterprise working with marginalized communities on sustainability challenges with a range of members from different disciplinary backgrounds. The Marine Social Science network<sup>5</sup> is an international and interdisciplinary network of diverse practitioners and stakeholders from the marine and coastal sector. The Cobra Collective represents a closed community with strong existing interpersonal relationships, the Marine Social Science network a more loose community. Yet, both pilot studies seemed to contribute to building a sense of community

---

<sup>2</sup> <https://www.youtube.com/watch?v=f7E8usMmAYM>

<sup>3</sup> <https://www.youtube.com/watch?v=UvxeNcQWCWo&t=168s>

<sup>4</sup> [www.cobracollective.org](http://www.cobracollective.org)

<sup>5</sup> [www.marsocsci.net](http://www.marsocsci.net)

and strengthening relationships in a fun and creative atmosphere that explored topics in new and more creative ways. Therefore, the emerging ocean ArtScience community of practice seemed to be an ideal opportunity to develop the Exquisite Corpse process into a formal method by examining this through a dedicated research project. The goal was to conduct this project as an active way of community building while generating academic and theoretical insights that would be presented at the 'Science and Society: Art and Science' session at the American Geophysical Union Fall Meeting 2021 (Jung et al. 2021).

## Research questions

The objective was to assess if and how the Exquisite Corpse process can be used to facilitate relationship building within communities of practice and to surface multiple perspectives and ways of knowing about marine issues.

The specific research questions were:

1. Can the Exquisite Corpse process lead to developing new insights about the seed topic?
2. Can the Exquisite Corpse process contribute to surfacing multiple perspectives and ways of knowing among diverse participants?
3. What kind of social and relational characteristics emerge when using this process to facilitate relationship building?
4. What are the limitations, opportunities and further development potentials of the Exquisite Corpse approach?

## Overview of the Exquisite Corpse Process

The Exquisite Corpse process is a group-based multi-week asynchronous art project. The process is meant to be fun and emotionally-engaging in order to allow participants to explore a topic collectively from multiple perspectives and share their values and emerging insights openly.

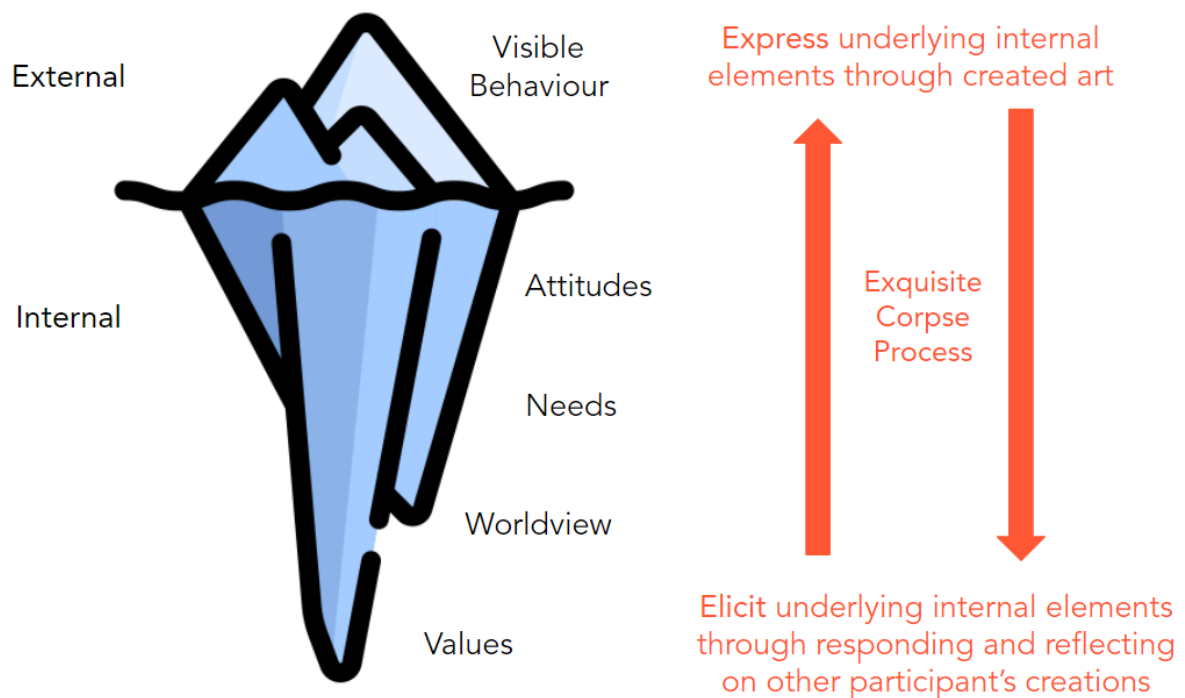
Starting from a common prompt and point of inspiration, each participant creates a series of art pieces that are passed to other participants as inspiration for their next piece. The Exquisite Corpse process used in this project was developed by Roz Ray<sup>6</sup> in 2010 based on an art exercise invented in 1925 in Paris by the surrealists Yves Tanguy, Jacques Prévert, André Breton and Marcel Duchamp. In their exercise, the surrealists drew or wrote a portion of an image or a poem, then folded back what they had written so the next participant could only see a small hint as inspiration. The name 'cadavre exquis' was derived from the first time they did this art exercise, which resulted in the line "*le cadavre exquis boira le vin nouveau*" ('the exquisite corpse will drink the new wine'). Recently, the exquisite corpse principle has also inspired a number of other ArtScience projects (de la Fuente, 2020; Januchowski-Hartley et al., 2022).

### Theoretical background

As a research and engagement method, the Exquisite Corpse process can be classified as a projective technique. Projective techniques invite participants to project their own ideas onto an ambiguous stimulus to surface their underlying values and perspectives (Lindzey, 1959; Rabin & Zlotogorski, 1981). They are a qualitative research approach and have recently been gaining increasing attention (Clarke et al., 2019). Instead of common self-reporting methods like interviews or focus groups, they aim to generate responses by providing ambiguous stimulus material which allows participants to express their own ideas, values and perspectives in response to the stimulus (Kitzinger & Powell, 1995). The reasoning behind this can be explained with an adaptation of the 'Iceberg' metaphor that was originally developed by Virginia Satir (Satir et al., 1991). The 'Iceberg model of reality' describes the relationship between our behavior and external actions and our internal state including our attitudes, values and worldview. It posits that beneath the visible elements of expressed behavior, individuals are driven by their underlying thought structures and paradigms (Innes, 2002). Projective techniques aim to mediate the connection between those underlying paradigms and expressed behaviors as shown in Figure 1.

---

<sup>6</sup> <https://www.rozray.net/>



*Figure 1: The influence of internal factors on a person's externally portrayed behaviors. The Exquisite Corpse process mediates between those internal elements and external behaviors by creating space for the expression of, for example, deeply held values, in participant's art projects. Engaging with other participant's projects can further elicit and surface those internal elements and invite open conversation about them.*

By providing an ambiguous stimulus that stirs imagination, participants are invited to project their ideas onto it. Those ideas are in turn influenced by their experiences, socio-cultural context, worldviews and values (Rabin & Zlotogorski, 1981; Smith, 2019). Thereby, engaging with the produced material and art projects can help to elicit and surface some of those personal values, emotions and paradigms of thought. Concurrently, being exposed to other people's art projects and seeing the differences in how they engaged with the stimulus demonstrates different perspectives on the topic. This allows participants to explore their own and others emotions, values and paradigms through the created art and to collectively experience the many different possible perspectives on a topic. Reflecting about these internal factors by talking about art allows this conversation to happen in an open and safe way. Instead of inviting disagreement with others' perceived realities by directly comparing values and subjectivities, reflecting about these through the lens of the Exquisite Corpse process enables this exchange to happen in a non-confrontational way.

## Description of the Exquisite Corpse Process

The Exquisite Corpse process takes place asynchronously over 6 weeks and is led by a facilitator. The email templates used to facilitate the different steps can be found in Appendix 1. During this process, every participant creates three distinct art projects that are shared at a final virtual meeting.

There is an initial prompt, called the seed, which serves as the initial inspiration for participants. The seed can be any type of medium that can be consumed in a short amount of time, such as short videos, images, texts or audio recordings. The seed should stimulate participants' imagination in different ways while also being somewhat ambiguous to create opportunity for participants to project their own values, experiences and interests onto it. The seed can either be pre-selected by the facilitator or chosen collectively. To choose the seed collectively, each participant is invited to submit one potential seed, all submitted seeds are collated in an online form where participants can rank and vote on their preferred option. Choosing a seed in this collective way can help to ensure that most participants feel inspired by the topic and motivated to start creating. Conversely, working with a pre-selected seed is important to steer the creations in a specific direction when there is a specific topic that needs collective exploration. Curating a pre-determined seed topic by the facilitator also speeds up the process. The two approaches could also easily be mixed by inviting participants to submit only seeds related to a certain topic.

Once the seed has been distributed to all participants, everyone has two weeks to create some form of art project in response to this prompt. The reason for this timeframe is to maintain a balance between keeping momentum and avoiding to rush participants. The specific length could be discussed depending on the situation of the participants, but should maintain this crucial balance. There should be enough time to avoid participants feeling stressed and ensure they have enough time to go into depth with their projects if they choose to. However, the timeframe should be short enough to keep participants engaged and avoid losing their interest or attention. The type of art project, scope and medium that participants create is entirely up to them. Clarifying this when sharing the prompt is important to put participants at ease and to stress that there is no 'wrong' way to create something and to avoid any sense of competition for creating the most beautiful pieces. Including a list of highly different suggested mediums like writing, painting, photography, sculpture, baking, needlepoint, film, music or dance can help to illustrate that participants can use any medium of their choice. The only constraint is that projects must be passed along to another participant within a limited time frame. After two weeks, everyone receives instructions for passing their creation to another participant by sending an email with a link to or photos of their project. In turn, everyone will also receive a creation from someone else. The art project participants receive is their new inspiration for creating their second art project and the process repeated as illustrated in table 1. After two weeks, everyone has to pass their projects on to someone else again and will receive someone else's creation as their new prompt. The different consecutive projects created by different participants that are building on each other are called 'threads'.

Table 1: Process of passing projects between participants. Each color represents a 'thread' of consecutive projects created by different participants.

	Seed	First Cycle	Second Cycle	Third Cycle
Thread 1 - Violet		Participant A	Participant E	Participant C
Thread 2 - Blue		Participant B	Participant A	Participant D
Thread 3 - Orange		Participant C	Participant B	Participant E
Thread 4 - Green		Participant D	Participant C	Participant A
Thread 5 - Yellow		Participant E	Participant D	Participant B

To keep track of the different threads, every thread is assigned an arbitrary name and every project within that thread is assigned a number. This creates an easy way to keep track of the different projects while maintaining their anonymity. For example Thread 1 (Violet) contains three different art pieces created by three participants. The first project was created by Participant 1 in response to the original seed and can be referred to as Violet 1. Participant A then passed Violet 1 to Participant E. Based on this project, Participant E created a second art piece (Violet 2). Participant E then passed Violet 2 to Participant C who created the last piece in this thread, Violet 3. These are not the names of the art projects, but simply a tool for the facilitator to keep the different threads organized. Before the party, every participant has an opportunity to submit a title, description of the medium and, if appropriate, content warning for their pieces that will replace the generic titles like Violet 1. Thread names should all come from a similar category and should be simple and fun to be easily memorable. For example, for the Exquisite Corpse process of this project, all threads were named after cetaceans, so that the threads were named: Beluga, Orca, Sperm Whale, Vaquita, Gray Whale, Blue Whale, Pilot whale and Harbor porpoise. The passing order with the participants is shifted from cycle to cycle to ensure that each participant engages with as many other participants as possible instead of interacting only with the one person throughout the process.

After six weeks (three cycles), every participant will have created three distinct projects that are all shared during a final online workshop, the 'Corpse Party'. Before the party, every participant has the opportunity to provide a title, description of the medium and, if appropriate, a content warning for their project. During the party, everyone presents their creations in the three-part thread series that trace the evolution of the seed through creative work by three successive participants. Each participant has the opportunity to introduce their projects and can share any related details about their creation or thought process if they want. The facilitator should moderate the overall party, initiate introducing

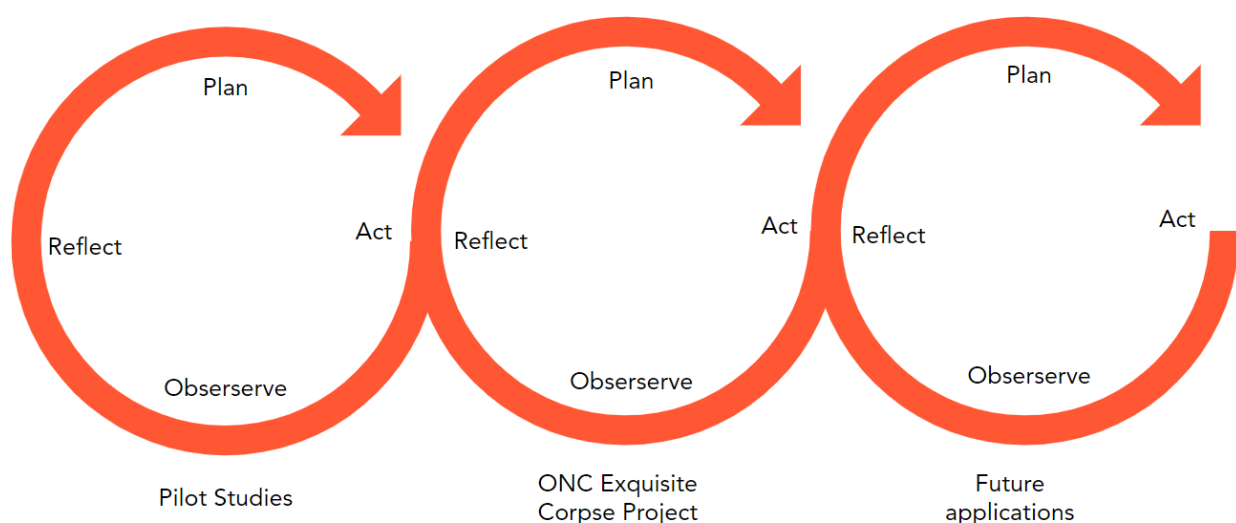
the different threads and prompting participants to talk about their work. This moderation should be very informal, though, to create a warm atmosphere where participants can share their reflections and emerging insights freely and openly. Finding a balance between moving along the different projects and making sure there is enough time to talk about all of them while having some flexibility and creating a familiar atmosphere is crucial.

## Methodology

---

This project used a participatory action research approach as the goal was explicitly to create a transformation by building community within the ocean ArtScience community of practice during the research process (Kemmis et al., 2014). All participants were invited from the beginning to bring in their own academic interests and insights into the emerging process. Additionally, the author and Dwight Owens had multiple roles during the process as participants and organizers. The author acted as the main facilitator and lead researcher in this project, but also participated as a full participant. This, in fact, was done very intentionally as the emotional openness experienced during the process requires a degree of vulnerability that cannot be achieved by a neutral or passive observer. In leading by example, the author wanted to facilitate a space for this vulnerability that was thought to enable meaningful relationship building.

Participatory action research is conducted in consecutive and iterative cycles of planning, action, observation and reflection. The focus is on constant learning and adaptation as each cycle builds on the previous one trying to put the new insights and reflections into practice (Kemmis et al., 2004). Figure 2 provides an overview of the action cycles for the development of the Exquisite Corpse process. The pilot studies conducted with the Cobra Collective and Marine Social Science network indicated the potential usefulness of this process for other applications through reflections among participants. During the interviews, participants were invited to share their views on the process including their academic interest and perspectives which helped shape the framing of this report. Overall, this participatory action research application is ongoing as new insights about the process emerged during the ONC Exquisite Corpse project that will be implemented in subsequent applications.



*Figure 2: Overview of the action cycles for the development of the Exquisite Corpse process.*

## Data collection and analysis

This ONC Exquisite Corpse project took place between September-November 2021 among a diverse group of 8 ocean scientists in terms of age, gender, career stage and disciplinary background. Participants ranged from 24 to 61 years including Master's students, practitioners and senior researchers with diverse backgrounds including environmental social science, marine biology, marine science education and geographic information systems. Some of the participants knew each other already through their work at ONC, collaborations within the #VirtualBlueDecade or individual exchanges. Two participants were almost entirely new to the group and didn't know any of the others. So, the group was a mix of people from different ocean science communities and with different levels of connection to each other. They were already broadly interested in the emerging ocean ArtScience community and recruited via a shared email list and by direct invitation using the "Invitation for Participants" shown in Appendix 2.

The project started with a virtual introductory meeting for all interested participants wherein the process and research aims were explained. Afterwards, all participants completed a survey stating their motivations and expectations for the project, their initial understanding of the focus topic, hypoxia, and their existing relationships to co-participants. Hypoxia was chosen as the seed topic based on recent data collected by ONC suggesting unusual upwelling of hypoxic waters along the Pacific coastal margin of Vancouver Island in the Northeast Pacific. The aim was to use a prompt based on oceanographic data to invite potential new insights about a topical issue in marine science, but that would also lend itself to more ambiguous associations. Based on this, Dwight Owens created the following video which served as the initial prompt provided to all participants:

<https://youtu.be/o1jGx6nuUhg>

From this, the process was facilitated as detailed in the previous section and the Exquisite Corpse Party took place on 6 Nov 2022 and lasted about three hours using the following presentation template:

[https://docs.google.com/presentation/d/1b1GPQIWDNkLWBBYeWw0Q\\_WCc7d5hBTCovY8-Q71kYk/edit?usp=sharing](https://docs.google.com/presentation/d/1b1GPQIWDNkLWBBYeWw0Q_WCc7d5hBTCovY8-Q71kYk/edit?usp=sharing)

The videos in this playlist show some examples of the threads that were presented at the party <https://www.youtube.com/playlist?list=PLX-EakYcQGO5OoCcIMMuESINUOryuEPx>. As described above, the format of the party allowed the group to share the collective art that had been produced and reflect on each piece as well as the overall process.

Following the party, each participant completed another survey capturing their experience. Apart from one, each participant also engaged in a 1:1 interview with the author to reflect on their experiences during the process. The post-process survey asked participants the following questions:

- What piece did you enjoy making the most and why?
- Have your thoughts and/or values changed as a result of the process?
- Has your understanding of hypoxia changed as a result of participating in this process?
- Could you describe what has changed in the professional/personal relationship with

- fellow participants as a result of the process?
- What do you think has changed in your involvement in the ocean-art/ocean-science community of practice as a result of participating in this process?

The interviews lasted on average 23 minutes and were conducted using open-ended questions using a narrative-style approach (Scârneci-Domni, 2013). Participants were simply asked to recount their experience during the Exquisite Corpse process. Additionally, the author asked specific questions picking up on certain answers from the post-process survey to get more insight and clarification.

The recordings from the party and the interviews were described using otter.ai and analyzed through qualitative coding using a grounded theory ethnography approach (Charmaz, 2006). As this approach prioritizes analyzing the phenomenon in question instead of the setting, it represents an ideal approach for this research project where the process itself is the theoretical focus. In this sense, the created artworks were also examined and evaluated alongside observations of the overall process and final party. The analysis of the created artworks here was linked to the role they played in the overall process in combination with the accompanying personal stories, associations and descriptions shared alongside them. Instead of viewing them as separate pieces of data, they were contextualized and evaluated according to the role they played in the process (Charmaz, 2006).

The data were analyzed using a mixture of inductive and deductive approaches via the constant comparative method (Creswell, 2009). Starting from the research questions, the initial categories were 'insights about hypoxia', 'relationships between participants' and 'surfacing values openly'. Following Charmaz (2006), each segment of data was compared to these categories and either grouped in one of the existing categories or placed as a new theme. The emerging themes from the written data were iteratively reviewed, refined along with other information about the process and then categorized into the emerging themes. This recursive process led to the development of additional themes and insights beyond the original research questions and highlights the value of using a grounded theory approach in this context. Instead of simply testing research questions, this also allows for the emergence of new, unexpected insights during the process. From this rich exploration of the overall context resulted the key analytical ideas and themes described in the following section

# Results

---

This chapter summarizes the research findings with regards to the main themes that emerged. These themes are: a. Insights about hypoxia, b. Identity as scientists and research practice, c. Connections among participants, d. Surfacing values and perspectives openly, e. Creative expression and the artistic process.

## a. Insights about hypoxia

In terms of generating new insights about hypoxia, for most participants, examining this topic through the Exquisite Corpse process seems to have *"infus[ed] 'hypoxia' with mood and emotion and story, beyond a simple word or a scientific concept"*. This stands in direct contrast with some of the participants initial associations, which one participant described as being *"very 'science-heavy' and I can see myself hearing it and not having a strong emotional reaction at all, but just using the word without engaging deeper in what it actually says and means"*. Another participant described their experience through the Exquisite Corpse process as developing a *"broader and more visceral appreciation of hypoxia, seeing it from the perspective of humans and non-humans and how it might be to experience the impacts of hypoxia directly and physically. Before, it was more of a science-based and clinical understanding that lacked a sense of vibrancy and connection to experience"*.

Some participants also directly gained some new insights in terms of more fact-based knowledge through the Exquisite Corpse process. One participant for example recalled *"having some big 'aha' moments during the party"* and another described seeing *"more facets and perspectives on hypoxia now that I didn't appreciate before. [One participants' piece] combined with [another participants' piece] made me think a lot more about the human connection to hypoxia in a more directly causal/determined way. Before it felt more fuzzy like hypoxia was just one of the myriad impacts of climate change, but the nuances of 'steering/influencing' this weren't so clear to me"*. Another participant gained more insight directly into the processes of hypoxia and how it helped to clear up some previous misconceptions: *"to me kind of the opposite of what I expected that you would think, okay, closer to the surface, and how maybe [there would be] more more oxygen. At least that's where my mind went before I kind of looked more into it. So, I was actually quite surprised by that you think, you know, deeper, less oxygen for you know, that, that it's kind of the opposite of what I expected"*. For others, they didn't necessarily gain any new insights in terms of knowledge about the topic, but stated that *"the process really highlighted the importance of breath, oxygen, to life and the ability to thrive"* or that it helped them gain *"a better idea of how other people think of hypoxia, and that it's not generally a well understood a concept"*.

Sometimes, the artistic process itself or the chosen medium a particular piece of art helped to create these conversations, a potential that one participant already highlighted in the

pre-process survey by saying that *"[a]rt transcends language and can generate a deep emotional response in the participant, offering the potential for a transformative experience"*. For example, when reflecting on the piece of art shown in Figure 2, a participant stated that *"[t]he one thing I also really like, is just the medium too because you've got all of the elements are like literally woven together. So it's like the interconnectedness of things, the interconnectedness of life. So if you were to take this apart, like tug on the threads and unravel, things start to fall apart and disconnect. So just like we have in nature as well"*.



Figure 2: *"From here to where"* by Adrienne Shumlich.

When reflecting on another piece of work shown in Figure 3, the art also stimulated conversations about real-world ecological implications that directly connected to one of the participants research: *"climate change and hypoxia and ocean acidification, the jellies*

*actually are doing really well, at least here in the Puget Sound. We've been studying that a lot. And like with all of the you know, the conditions that might make it more more difficult for other organisms, the jellies are thriving. And so I just thought that was an interesting choice to [put] the jelly, the thing that can get through the knot and is also the thing that's getting through all of our, you know, anthropogenic forcing [into the center of this artwork]".* The 'knot' referenced here relates to the gordian knots integrated in the artwork below. Inspired by the previous project, they represent the intractable nature of many current ocean sustainability problems. This exchange was later referenced by another participant in the post-process survey who mentioned that they were *"interested to hear that jellyfish actually tend to thrive in a hypoxic environment"*.



Figure 3: "Gordia capillata" by Julia Jung.

## b. Identity as a scientist and research practice

As alluded to in the previous section, some participants reflected on their research and practice as ocean scientists. Hearing about other participant's backgrounds in this context added more depth to the conversation and discussion about the relevant pieces. For example, knowing the reflections behind a particular piece and how it related to the participants research practice was picked up by another participant who responded during the party by saying *"I love your reasoning behind [your work and] I love how you brought it to a different scale. And it's very personal. Well, now that we know your background, it's like, Oh, my God, this is so personal. And so it makes it more like, intense and we can more see it clearly"*. Reflecting on the same participant, another participant also remarked that *"her practice as a scientist really influenced [her] and she reflected on it in really interesting ways"*.

On a more individual level, a participant remarked that the project *"definitely motivated me to think deeper about my work"*. Similarly to how the concept of hypoxia became a more emotional experience for many participants, the project overall also seemed to reinspire some people's connection to their work as recounted by one participant: *"I felt a little bit disconnected from the meaning behind the work, I was just kind of, I felt like I was just looking at data, but not really taking any time to actually let it sort of sink in [...] for example, I was on the Nautilus when we were collecting that CTD data. And to me, it was just kind of numbers until this project. So this, this really allowed me to kind of dig into how it actually makes me feel. So I was really excited about that"*. Some participants also stressed the need to connect as scientists and talk more openly about these issues as summarized here: *"climate change was the object of our talks and we shared our concerns about climate change, ocean protection, and it helps to connect us as a scientist to the society for the world of tomorrow"*. This 'world of tomorrow' was later explained to refer to more applied and transdisciplinary research that could effectively tackle the current ocean sustainability problems. In the follow-up interview, this participant also said how they *"hope [they] will be involved in future communities about arts and science, it makes you think and grow and feel best armed for the future and for others!"*. Similarly, another participant also remarked that they now felt *"even more convinced of the importance of connecting art and science communication, and [...] encouraged and invigorated by the other participants in this project!"*.

Participants also related their reflections during the party to more philosophical questions about their research practice and the need for a change in research practices. For example, a participant described their motivations for their first project shown in Figure 4 in saying: *"Because then I'm studying climate change. And in fact, climate change when [...] you are [a] biologist it's only in the tube [...] I just found this picture very nice, in fact, because I'm studying climate change with heat, and salinity increasing and oxygen is losing and I'm answering that with tubes and ice. So I found [it] really, really, really strange because we need ice to study climate change"*. This also prompted some participants to reflect more on these themes even after the party as they recounted in the post-process survey and interviews: *"my thoughts about how this is related to the ways we study climate change and how sometimes hypocritical/ ethically tricky this can be given the resources needed to*

conduct such studies” and “it asked me some questions about the way we need to do things. Maybe we could find some other ways to do things [as scientists]”.

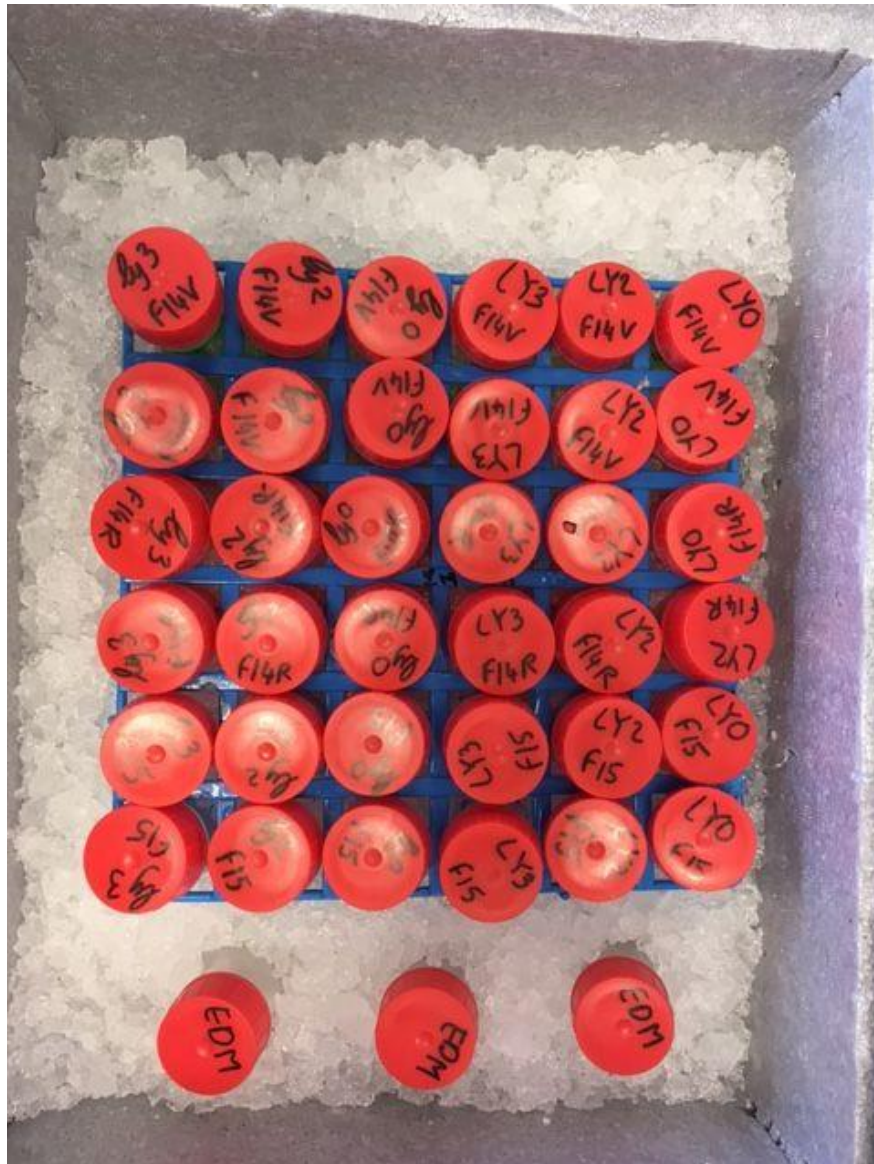


Figure 4: “Climate change in a tube” by Charlotte Corporeau.

Similarly, the jellyfish portrayed in Figure 3 also represented a larger metaphor about scientific conduct and the importance of acknowledging our positionality as researchers to this participant: *“my answer to the riddle is jellyfish, we need something that is soft, that can squeeze through the Gordian knot. And that's reflective because [as scientists, that's what] we need to be, I don't know, reflective about ourselves and where we are and jellyfish have a shiny reflective surface”*. There was a sense of the importance to incorporate these reflections and different ways of knowing more into scientific practice to create relevant and applied research.

### c. Connections among participants

The process seems to have strengthened existing relationships by adding more emotional depth and opportunities to explore more creative approaches and questions collectively. In doing so, it created a space to experience different sides of people, as summarized by one participant who stated that *"for the people I already knew, I feel like I gained a greater sense of who they are and feel closer to them"*. The Exquisite Corpse process seems to have created an opportunity to share more personal elements about themselves and their perspectives as highlighted by a participant who felt that *"[s]eeing that side of them and experiencing their work has deepened my appreciation for them as people and as co-workers. Three of the participants are colleagues in the ocean art-science-knowledge-outreach arena, and I appreciated the opportunity to see this other side or aspect of them and their work."* Another participant also highlighted how *"[w]orking on a collaborative project of a nature such as the one we have just completed adds depth to relationships that are often missing in 'pure' science partnerships"*. Most of this happened during the Corpse Party while listening to others reflecting on their experience during the process or explaining their motivations and inspirations for creating their projects. As summarized by one participant who described how the party brought everything together: *"it was sort of like you're on your own solo journey. And you know that other people are on a journey. And then everyone arrived at the destination, and the party was very interesting. And it was just to see what other people had done and how supportive everyone was of each other. I think that was great"*.

Reflecting on the party, one participant said that *"[i]t was really nice to hear people talk about their own work. And just get that additional depth of perspective about where that whole creative process came from, and what the inspiration was for interpreting things in a particular way. So for me, the party was more than just the art, it was also just really getting to know everyone a lot, a lot better"*. Another participant described this similarly and highlighted how the Exquisite Corpse process allowed people to share elements they might not normally share in a professional environment: *"met new people in a really interactive, exciting context and liked how the art they created let them introduce themselves in an unusual way"*. Another participant reflected on their experience of the party saying it *"allowed for deeper connections in short periods of time. I was struck by how much emotion we were able to feel in others pieces and the willingness to share personal details"*. This openness to sharing more personal details during the party seemed to have been connected to creating a safe space and openness to this type of exchange from the beginning. One participant especially highlighted this while introducing one of their pieces: *"there's a more personal story connected to it, too, which I might share with you. And I feel I should, [name of another participant], because you shared so much with your own piece at the beginning"*. Another picked up on it during the follow-up interviews, saying *"I thought it was really valuable that [participant] started with [a particular] piece because it was so emotional and thought provoking and started like it set a precedent for the rest of the party. It was like, oh, yeah, okay, we can be vulnerable here. You know, we can, I thought that was a really good, good way to start it because I think [it] maybe had inspired people to be a little bit more open and vulnerable"*. This atmosphere and sharing of personal stories also resulted in a range of different emotions that were shared during the party, as

recounted by one participant who said: *"I didn't expect myself to get emotional during the like, final party, but I was like I had tears in my eyes a few times. [...] Like I actually had tears in my eyes and was like, 'Oh, I'm really surprised that I feel this way'."* The impact of the virtual nature of this process was also highlighted by one participant who said that they *"feel more comfortable being kind of open and honest about things and I wouldn't be meeting people for the first time in an in person space. Yeah, I'm not exactly sure why that is. I think it's just the just, it's just contextual. Like I'm here at home. And, like, it's, it's, it's a safe space, right. And I feel at the end of the day that if things go sideways on a video call, I can just hit that big red button that I'm free, you know, and I don't have to worry too much about like, you know, body language or being able to like, how do I leave this room"*.

With regards to an overarching feeling of community beyond individual relationships, the process seems to have created an initial foundation for the development of deeper relationships and meaningful community in the future, as summarized by one participant: *"Overall, I feel that there may be the possibility of building community through connections to the participants and extension to the broader community of people interested in exploring the art-science interface"*. Another participant even felt like the process was a *"type of networking, but I think it's more like relaxing and can get to know the person through their art and what they do, what they like"*, highlighting the importance this process can have even when participants don't already know each other. For one participant, there already seemed to be a strong sense of community as they noted in their final reflections: *"I feel much more affirmed that if anything this community is already there and that there is so much interest in this. I feel reassured that this is important work that could benefit many people and also that I have a space in this community. I feel excited to continue and motivated to do more work in this field!"* and that they *"feel like my sense of trust has developed a lot more with the other participants"*. Yet another participant described the process as *"a step in the evolution from individuals and disparate projects toward a community of practice. I don't think we're near that state yet, however. On the other hand, maybe it's more about the journey than any sort of goal or end-state"*. This indicates the subjective differences with regards to a sense of community between participants but affirms the potential for this process to facilitate this type of community building.

The interviews also highlighted the importance of building this sense of community in participant's workplaces. In this context, the way the process can help to reframe established hierarchies might also be especially important for future applications. As everyone is equal during the process, *"it puts everybody on the same spotlight"*, as expressed by one participant. Another participant stressed how even though initially everyone was *"going individually, we were all kind of on this parallel trajectory. Yeah. So there is a sense of kinship with that"*. Another participant shared that for them the project *"reiterated that we all want to feel connected, to each other and to the work that we are doing. It is easy to just feel like you are 'going through the motions'. Projects like this are very important in order to feel connected"*. This was echoed by another participant who highlighted the intertwined nature of personal and professional relationships by saying they experienced *"[a sense of care] between people during the process and the party gave me energy to feel good, despite a major concern about climate change we were able to share beauty as arts, and it made me feel better in my mind and in my family and in my job"*.

Reflecting specifically on their relationship to ONC, another participant stated that even though *"none of my direct coworkers have been a part of this project, but I definitely feel more connected to ONC [...] I feel more connected to the ONC community. It feels I guess, more like a community and less like 'oh, yeah, this is where I work' "*.

## d. Surfacing values and perspectives openly

The ability of the Exquisite Corpse process to surface values and perspectives openly became apparent as participants shared more about their experience during the process. There was a lot of diversity in terms of perspectives and created outputs, as recounted by a participant who noted that *"everyone seems to have different reactions that span many mediums. I was struck by the uniqueness of the group"*. Another stated how they *"liked the combination of thoughtfulness and beauty and concern and science and our different perspectives and values"*. Following the party, another participant described how they now feel like they *"can see so much more nuance as well in all the participants, like I was left with this big appreciation for the nuances of people, the different ways of engagement and just the huge variety of characters"*.

The majority of this surfacing seemed to have happened during the final Corpse party, which one participant described as being *"really useful for reflection"* as it allowed participants to freely share any associations that came up for them while viewing other's projects and immerse themselves in their stories. Another participant also stressed that *"the party was really useful [...] to hear how people reflected on, you know, what their process was, how they reflected [on the piece they had received], how they took what other people had created."* However, the one on one exchanges during the project hand-overs also created some opportunity for this exchange as described by one participant when introducing their project during the party: *"I won't talk too much about it, because [another participant] sent me an email afterwards. And I really liked what she took from this, maybe even more than what I wrote in the first place. I'll just say one thing, which is, I'm interested, you know, I'm very a-religious if not anti religious, but I'm very interested in how categories, how religion categorizes and how it mis-categorizes. And so I've brought in, you know, Catholicism which I know only about through reading and then mythology [into my project]"*.

Seeing how various people interpreted the initial prompt and following projects also highlighted this as described by one participant saying how it was *"so different from the different people that we received, like, we saw how different things could be. So then I really understood that like, oh, okay, so it's something really personal, like art is something personal. It's not like an objective like, 'Okay, I need to draw this data' - It's something that comes [from] within"*. This quote also illustrates the importance of using art as a medium here and how it helped to create this non-confrontational way of surfacing perspectives. Reflecting on ways to surface plural perspectives without asserting dominance over a specific point of view one participant stated how *"consensus is fraught for me, right? Because you don't want consensus for its own sake. But you want to be able to hear perspectives. And this is a way to hear perspectives and to share perspectives. That's, that's different from, you know, the typical, you know, meeting workshop, even facilitated meeting, right. It's, it's, it's mediated, it's facilitated, but through creation, yeah. And through person, it's not like an external person coming in and mediating it, or facilitating it, it's you through a medium or different media, actually"*. Another participant also stressed the potential of using this as a larger process for engaging across differences: *"if we need better tools, whatever if we need better ways of communicating across differences. How do*

*we do that? And what's you know, and can that help people understand each other better? You know, not just [...] the information. [...] what I really liked was this was about people and information. And beauty".*

This sense of using this as an opportunity to express personal values and perspectives also emerged from other participants. For example, one participant recounted her changing relationship with the art she was creating during the process: *"[In the beginning of the process] I thought I had to do something nice. But then like, the first few times and we did it exchange projects. And then I kind of realized that it was about, like really expressing something right? Like, an idea or like, like something that inspires you, right? And then so I was able to kind of let go of that stress and be more like, and actually, I think ended up being better when I let go of that. So yeah, and obviously the project, like when it came to, like all together at the party, it was so nice to just see how everybody thought of their projects and how they thought of other's projects. And like, it was really more insightful, like, as if we were going really deep into understanding".*

As most participants understood art to be something emerging from within, there was no sense of competition or argument about the 'right' way to interpret something. Instead, it created a space for diversity and plural ways of relating to and working with the presented seed. One participant also stressed this relating to the contextual process of learning understanding of the topic itself, they said that *"as an educator I'm interested in the different understandings that people bring to a topic and how consciousness draws from the unconscious in shaping schemas and knowledge. Seeing how each person has chosen to interpret each prompt enlightens in this respect".* Another participant also stated this very clearly in their reflections: *"everyone just has such unique stories, I guess that were just influencing their projects so much, you know, it wasn't just the seed. It was like the seed and their life's story as well. You know. So that was cool to see those two kind of come together".*

## e. Creative expression and the artistic process

The transformative power of the process of creating art in this framework was another important element that was highlighted and already alluded to in the earlier sections. As for example explored in the 'hypoxia' theme, the artistic process or the chosen medium enabled emotional connections and deeper understandings to emerge about hypoxia. Overall at the conclusion of the project, all participants said they felt *"more inspired to continue with [their] artistic path"*. Some participants highlighted the emergent nature of creating something that happened on a more emotional level: *"what was cool about like responding to other people's artwork is you didn't necessarily didn't have the time to be like, 'Oh, what do I want to make next?', It's just like, it'll have to come out of whatever you're given. You know, you don't really necessarily have to, you know, have the chance to plan it. too much, you know, it's just [asking yourself]: What do you feel in response to this?"*. The asynchronous nature of the process also seemed really important in allowing people to capture and express sentiments connected to their lives as they are happening. One participant described this quite illustratively by saying for the type of project you end up creating, *"[s]o much of it is I think connected to where you're at [like] what's happening in your life when you receive the project"*. Similarly, the role of communication and artistic expression in this process of surfacing and expression was also noted by a participant explaining that there is *"what we've chosen to share, [...] but the other side of it too, is that in sharing that - how has that inspired the other people to make what they've made? [S]o like we choose to share or, or keep private. But then yeah, how does that act as a trigger for other people? And why? You know why? Why has this piece of music for example inspired you to paint a picture of like a raging wave with a red sunset. [...] there's so much depth here"*. Acknowledging this potential of art to communicate in a non-verbal way was also highlighted by another participant noting that *"if we like art, I find that it's a way to just get the language out [of the way]. And just communicate, right, just show something. [...] you just see an insight and think 'Oh, wow, there's so much that is communicated through that' "*.

Having free choice of medium here also seemed really important in this process as recounted by a participant who said exploring the project they were given *"led me down so many interesting thought passages and different directions in terms of media (I thought about doing a play) and content (I read up more about Pandora and her box and the cardinal sins). This piece was also such a good example of how some things translate better into some media than others, like using words or some more linear form of medium just did not work, but using a free visual expression and collage that allowed me to put my different thoughts and ideas together more freely captured the sentiment of what I wanted to express really well"*. Another participant also deliberately used characteristics of a certain medium to better express her underlying motives for the piece shown in Figure 5, her first piece responding directly to the prompt. Other participants noticed how closely it resembled the format of a scientific graph showing the prominence of life in relation to certain unknown parameters and which she then described as *"a visual representation to me of the data. And I used a lot of watercolor as, you know, we're, we're dealing with ocean science and I used Yeah, some blurriness. So, you know, are these anemones? Is this actual life? Or is it just the representation of the data? It's kind of whatever you see in it"*.



Figure 5: "Cause and effect" by Rachel Would.

Seeing the way these elements were then in turn transformed by others, was also an important experience for some participants and led to larger reflections about communication like for the following participant who said *"I liked how people took ideas and made their own creations/new ideas with them, so I would say that the process made me reflect on how communication works differently depending on the context and who is giving, receiving, responding..."*. The importance of the evolution of projects building on each other was also often stressed and is easily illustrated in the 'Orca' thread (<https://www.youtube.com/watch?v=KJm2MPvm8yI&list=PLX-EakYcQGOOr5OoCclMMuESINUOryuEPx&index=3>) which was commented upon by one participant: *"I love that in this in this one you all built off of each other. You know, starting with the music then the dance and then contextualizing it in nature that is just, that's so cool"*.

Reflecting on the collective art itself also posed some interesting questions, such as whether the created pieces should be viewed as individual artworks or understood as being parts of a larger creation. In a way, they represent both as they can of course be viewed as individual pieces, like the examples used above. However, it feels as if they need to be considered within the larger context of their creation to fully appreciate them.

## Discussion

---

This chapter contextualizes the findings presented in the previous section with regards to answering the research questions and opens up the discussion with reference to existing research.

### 1. Developing new insights

Some participants were able to gain a better understanding of hypoxia through this process or to clear up some misconceptions they had about this topic. While this does not represent new knowledge generated about hypoxia, it illustrates how artistic engagement can mediate people's knowledge about a topic within a group and communicate that in a more applied and captivating way (Marizzi & Bartar, 2020). It also illustrates how free association following aesthetic pleasure can lead to meaningful moments of understanding (Barbalet, 2011). By creating alternative spaces and modes of thinking, this type of engagement can increase creativity and has the potential to lead to new insights (Januchowski-Hartley et al., 2018; Jue, 2020). For most participants however, new insights did not arrive in the form of new factual knowledge, but in a more emotional and affective relationship to the concept of hypoxia. This change highlights the transformational potential of art. This potential has recently been demonstrated with people attending live theater performances, which increased empathy and elicited pro-social behavior (Rathje et al., 2021). During the Corpse party, similar processes are likely to have occurred through narrative transportation into the participants' personal stories and reflections related to their creations (Green, 2021). Immersion in this space was likely due to the nature of the Corpse party by reviewing the art collectively as shared experiences are amplified (Boothby et al., 2014). Embracing this type of relating is important as there is growing concern over the mental health implications of the emotional impacts of working on climate change or related environmental issues (Clayton, 2018). There is a strong tendency of scientists to engage in emotional denial as a coping mechanism to suppress difficult and uncomfortable emotions related to the consequences of anthropogenic impacts (Head & Harada, 2017). This tendency of 'keeping the heart a long way from the brain' (Head & Harada, 2017, p.34) is expected within the traditional norms of science as a cultural institution (Barbalet, 2002, 2004). However, there is growing recognition for the need to create spaces where these hard feelings can be shared (Duggan et al., 2021), and to acknowledge the impact nonconscious emotions have on the scientific process (Barbalet, 2011). As demonstrated, the Exquisite Corpse process has potential to create more affective ways of relating to environmental topics and to surface those underlying emotions. The process can therefore contribute to managing emotions more constructively by creating opportunities to express them freely (Head & Harada, 2017). Creating a sense of community, which will be explored in detail in the following sections, can also help to build resilience when facing these emotions (Duggan et al., 2021).

Beyond contributing to researcher's improved emotional management, engaging more constructively with such emotions also has important wider societal and policy implications.

Brysse et al. (2013) for example demonstrate how strict adherence to dispassion as a scientific norm has led to overly conservative projections of climate change impacts, a phenomenon described as 'erring on the side of least drama' (Brysse et al., 2013). Engaging differently with these projections would also change the way we interact with them and their potential consequences. This has been explored in depth by philosopher Gabriele Gramelsberger. Her work questions how differently we would engage with simulations following a more emotional engagement and imagining what living inside them actually would look like (Gramelsberger, 2010). In this way, more artistic and affective explorations can help to link simulations and projections back to the real world (Krau , 2015). Using art can help to discover familiar topics, settings or scenarios in a new way by, for example, aesthetically highlighting what might be overlooked (Irwin, 2013). Similarly, Barbalet (2011) also highlights how nonconscious emotions can drive scientific theory choice and research processes. Acknowledging the impact of these factors and the impact of social norms and conventions from within the cultural institutions of science on scientific research outputs is crucial to question them critically (Barbalet, 2002; Haraway, 1988). Therefore, creating space for increasing acknowledgement of those emotional realities in creative ways can have wider potential positive impacts beyond improving individual's wellbeing and sense of connection with their work (Stevenson, 2021). It can also lead to changes in policy recommendation, perceived urgencies, setting priorities and finding more creative ways of engaging with other actors.

## 2. Surfacing plural perspectives

Surfacing diverse values, perspectives and emotions can play an important role in different contexts. With regards to emotional responses of environmental scientists to climate change, multiple projects have highlighted that there is a wide range in scientists' feelings and emotions. This is exemplified in Neal Haddaway's project 'hope? and how to grieve for the planet' that showcases the feelings and approaches of different environmental scientists and communicators about the state of the planet<sup>7</sup>. Duggan et al. (2021) highlight the importance of voicing those emotions as a way of working through them and call for an explicit 'openness to diversity in feelings and approaches while still acting collectively as a community' (Duggan et al., 2021, p.855). As demonstrated earlier, the Exquisite Corpse process was able to elicit a range of emotional responses during the process and especially during the final Corpse party. Participants noted the wide range of emotions from sadness over joy and wonder to a sense of warmth and connection with others.

Besides surfacing multiple emotions, many participants noted how the Exquisite Corpse process brought up different people's values and ways of viewing the world. This is driven by the process explained earlier using the iceberg metaphor (Innes, 2002; Satir et al., 1991). Being confronted with how other participants have chosen to interpret the seed or have responded in their creation elicits participants' own values and perspectives that might be contrasting. This process of laying out the different possible ways of engaging with the material can inspire participants to reflect more about their own positionality and assumptions. Krauß (2015) highlights how this process of 'individual confrontation with the other' (Krauß, 2015, p.5) can lead to questioning your own identity and associated factors. Experiencing this shift in perspective can also create opportunities that invite different ways of thinking about issues and situations (Stengers, 2005). However, as participants stressed - by the nature of surfacing those elements through art, this sharing happened in a more creative way. By explicitly framing the final party as a safe and open space, participants were able to share their values and perspectives in a non-confrontational way focused on actively listening to and learning from each other. All participants shared the understanding of the personal and subjective dimension of the art pieces, which created a safe space to truly appreciate parallel, divergent and multiple perspectives.

There has been a growing recognition of the importance of values in science during the research process and the conflict of values that can occur when they are not aligned (Brown, 2020). This is especially important for environmental conflicts between multiple actors with highly diverging views and emotional influences. Connections between values and emotions are often still invisible and can be the root of conflict escalation and failure to find shared understandings (Buijs & Lawrence, 2013; Laursen et al., 2021). By allowing participants' to surface their values and worldviews openly, this constitutes one of the main areas with high potential for future application of the Exquisite Corpse process. In such situations with high stakeholder divergence, it could contribute to the greater acceptance of multiple ways of knowing and relating about a topic. For example, it could be used in a wicked marine governance situation where different user groups and stakeholders disagree

---

<sup>7</sup> <http://www.nealhaddaway.com/hope>

about the management of a certain bay. An Exquisite Corpse process could be organized with the initial prompt relating to the ecosystem or area in question. This would allow stakeholders to communicate some of their associations with and perspectives on this ecosystem with others and to share them in a non-confrontational way. However, here the Exquisite Corpse process would have to be embedded in a wider framework of holistic governance and decision-making. One suitable framework for this could be Soft Systems Methodology (SSM) (Checkland, 1981; Checkland & Scholes, 1990), an adaptive decision-making framework that has commonly been used for environmental governance issues (Bunch, 2003). During the initial stages of SSM, there is an explicit step that focuses on eliciting and identifying the worldviews and interests of involved actors. Here, the Exquisite Corpse process could be used in combination with other tools, such as rich pictures - a collective visual exploration of a problematic situation (Bell & Morse, 2013) - to develop a shared understanding. Other possible frameworks are anti-colonial approaches that focus on plurality, relationality and active listening (e.g. Moreno-Cely et al., 2021). Even when not used within a wider framework, the Exquisite Corpse process might be able to diffuse some tension in highly divergent situations by engaging participants in this non-confrontational way that encourages active listening and open sharing of perspectives. It might also be a possible way to respond to calls for increased reflexivity in conservation science more generally (Beck et al., 2021).

### 3. Building relationships

The project succeeded in creating an emotionally engaging process that generated feelings of inspiration, warmth, connection and kinship among participants. By creating opportunities for participants to express themselves openly and to be inspired by each other's work, it allowed them to share more personal reflections beyond traditional dispassionate scientific exchange. Some participants for example stressed how they were surprised about the emotional depth of the conversation and general openness. The process of creating and sharing art collectively generated a sense of shared endeavor and kinship among participants. Using art as a mediator for sharing these elements has been shown to mediate social relationships (Myers, 2004). By bridging between physical and imagined spaces, supporting differences, promoting witnessing and surfacing inner values and qualities, art can hold space for ambiguity and create intimacy (Lev, 2020). This can also affect the way different kinds of trust are formed. Trust in general is fundamental for communities of practice and has for example been shown to improve the quality, quantity and focus of knowledge sharing (Usoro et al., 2007). In communities, trusting relationships occur simultaneously on different interacting levels from interpersonal trust between individuals to collective trust in the overall community (Costa et al., 2018). The two main types of trust are relational and calculus-based trust (Rousseau et al., 1998). Relational trust differs from calculus-based trust as it is based on the emotional connection between individuals. Instead, calculus based trust is a cognitive choice made based on rational reasons such as reliability and dependability and entails a calculation of the specific costs and benefits engagement with an individual might bring (Rousseau et al., 1998). Relational trust emerges from the connections between individuals and from a belief in the intrinsic value of such relationships based on emotional connections (McAllister, 1995).

Sharing more personal and emotional elements can speed up the formation of relational trust, which normally develops later in relationships (Rousseau et al., 1998). The Exquisite Corpse process can help to create an environment that facilitates this type of trust formation as it surfaces emotional elements that allow participants to get a more genuine picture of each other. As highlighted by many participants, being able to share elements of themselves that they normally wouldn't be able to, gave others a more complete picture of who they are compared to the more stereotypical professional relationships they had before. So, the process did strengthen interpersonal connections between the participants who had known each other before. However, building relational trust derives from having repeated, long-term interactions between each other and cannot emerge spontaneously from single interactions (McAllister, 1995; Rousseau et al., 1998). Therefore, the Exquisite Corpse process should effectively be used as part of an ongoing team or community building process that aims to strengthen both calculus and relational-based trust. This could for example be used periodically within communities of practice where having a shared sense of identity and belonging, especially with diverse members, is crucial for social cohesion (Wenger, 2010).

Besides influencing individual interpersonal relationships, the presence and type of trust also affects community-wide behavior (McAllister, 1995). For example, both affective and cognitive-based trust have been shown to influence knowledge sharing within organizations

(Holste & Fields, 2005). However, the role of cognitive-based trust seems to be more important (Zhang & Chen, 2018). Relational trust can lead to more needs-based monitoring and citizenship behavior within organizations (McAllister, 1995). This means that members are more attuned to others needs and fulfill them because of the nature of the relationship itself rather than in exchange for a future obligation. They can create an environment resembling more communal relationships where members give benefits and help each other out of general concern for the other person instead of a debt or obligation (Clark & Mills, 1979; Clark & Mils, 1993). These forms of relationships and communities can create strong social bonds. They might be especially important for otherwise loose communities of practice to be able to provide emotional support, such as the sense of community stressed as necessary to build resilience within the climate change science community (Clayton, 2018).

Other key factors to build community beyond the emotional elements are establishing shared activities and rules (Wenger, 2010). Developing norms also helps to establish good interaction etiquettes, empathy and can further contribute to creating trust (Preece, 2004). This indicates how the Exquisite Corpse process can make a meaningful contribution to building relationships and strengthening communities of practice when used within a larger formal and structured process of community building.

## 4. Limitations and Opportunities

### Limitations

The potential of the Exquisite Corpse project to affect personal relationships and build social cohesion depends highly on the previous relationships between participants. Even though the process can also be used with people that don't know each other yet, the full benefits only arise if the process of relationship and trust building is actively continued. This could be done either with additional iterations of the process or with other structured community or team building activities. In this project, as not all participants were able to attend the kick-off meeting, the party itself was the first opportunity for some people to meet each other. Therefore, even if the party created an open space for emotional expression, building trust and being able to enter this environment requires more points of connection and recurrence (McAllister, 1995). However, especially when using the Exquisite Corpse process with a focus on relationship building, the process could be slightly modified to create more opportunity for one on one interactions between participants. Instead of passing the creations to the next participant by email, they could be shared with a virtual meeting to have the opportunity to talk more about them. This might influence the creation process for the person who receives the project, though, by giving them much more input and insight. It might also influence the dynamics during the party as participants will have already shared some of their insights beforehand. Changing the dynamics of the party, might also be beneficial to change the timing as three hours is a very long virtual meeting to be in. Another option to shorten the party would be to split the party up into two or more sessions to give each project more space to be discussed. The author has tried this in previous pilot studies of the Exquisite Corpse process and while it helps to keep the time manageable, it also changes the dynamic as participants already knew what to expect for the second party. Additionally, the feeling of excitement may dissipate after having a long break between the parties, especially if some participants may have already presented their most cherished artistic output, which changes the emotional atmosphere of the party.

Apart from those logistical limitations, there are some more fundamental potential limitations. Even though the process aims to create a safe and open environment, this might not be possible when there is high animosity between members. Additionally, it might not always be desirable to promote this type of emotional connection between members of a project or within a professional setting. For example, if there are some distinct conflicts of interest or specific power relationships such as marginalized actors and individuals with political power, they might specifically reject this type of relationship building. However, even within an environment or community that would benefit from this type of engagement, some individuals might just not be comfortable with sharing personal details in this way. Creating art and engaging in this process is emotionally demanding and should obviously not be imposed on members of a community, which would also create a lot of stress, and always be a voluntary endeavor. This means there should also always be a form of consent process that clearly spells out what is involved in terms of potential emotional and time investment. Ensuring that everyone knows that participation is voluntary and can be withdrawn at any time without experiencing judgment is crucial.

## Opportunities

The Exquisite Corpse process represents a flexible method that could be used in a wide variety of contexts and integrated into other existing frameworks. Within transdisciplinary teams, it could contribute to surfacing different values and perspectives early on during the research process. As part of the kick-off activities for such a project, participants could engage in an Exquisite Corpse process related to the main topic. Considering the phases of transdisciplinary team formation, here it would bring major contributions during the first two phases (Hall et al., 2012). In the developmental phase, this could help to develop a shared understanding of the scientific or societal problem space. In the conceptual phase, the type of free and divergent thinking encouraged by the Exquisite Corpse process might lead to novel research questions, hypotheses or conceptual frameworks (Hall et al., 2012). More generally, engaging in this process could also contribute to addressing some of the inherent challenges of transdisciplinary teams, such as differing assumptions about what constitutes data and research (Gaziulusoy et al., 2016). There are a number of established research frameworks such as the *circle of dialogue wisdom* (Moreno-Cely et al., 2021) or Soft Systems Methodologies introduced earlier (Checkland, 1981; Checkland & Scholes, 1990), where the Exquisite Corpse process could directly be integrated with other activities.

Within communities of practice, it could be used at the different stages of development in the community life cycle (Wenger, 1998). In the *coalescing* phase it can help potential members to recognize their potential and explore their connection by negotiating their ideas of community. This was the case during this project where we used it as an active opportunity to strengthen the emerging ocean ArtScience community of practice and invite new potential members. Another application could be to use this process as a way of keeping members of an organization or community of practice engaged even when they are currently not working on a shared initiative. By participating in an Exquisite Corpse process related to a topic important to the community, members would maintain those relationships even when there is no official ongoing collaboration. For example, as part of the Participatory Action Research for developing the process, the author conducted one of the pilot studies leading up to this project within the Cobra Collective, a social enterprise composed of an international and diverse team of researchers, photographers and videographers. Most Cobra Collective members have known each other for a long time and share deep relationships of trust. However, many were not currently collaborating on a project and going through the Exquisite Corpse process reinforced those relationships and created novel ways of connecting. This would be classified as contributing to the *active* phase of the community life cycle, where some of the key activities are creating meaningful artifacts and renewing members' interest and commitment to each other (Wenger, 1998).

## Conclusion

The project succeeded in creating an emotionally engaging process among participants that allowed them to share and surface their perspectives, values and emotions openly. In doing so, it strengthened existing relationships among participants and laid a foundation for future relationship developments for many participants who did not know each other before. Sharing and creating art collectively provided opportunities for participants to gain a more affective relation to the concept of hypoxia and reflect on their identity and practice as ocean scientists in a changing world. The process blurred some boundaries between art and science, work and personal relationships and the rational versus emotional way of relating. The Exquisite Corpse process is a promising tool to be used to develop new insights in more affective and emergent ways, surface people's values and perspectives openly and build community. It could be used in a range of different contexts as a single project or more effectively as part of larger ongoing interventions or community building efforts.

# References

- Barbalet, J. (2002). Science and Emotions. *The Sociological Review*, 50, 132–150.  
<https://doi.org/10.1111/j.1467-954X.2002.tb03595.x>
- Barbalet, J. (2004). Consciousness, emotions, and science. In *Advances in Group Processes* (Vol. 21, pp. 245–272). [https://doi.org/10.1016/S0882-6145\(04\)21010-4](https://doi.org/10.1016/S0882-6145(04)21010-4)
- Barbalet, J. (2011). Emotions Beyond Regulation: Backgrounded Emotions in Science and Trust. *Emotion Review*, 3(1), 36–43. <https://doi.org/10.1177/1754073910380968>
- Beck, J. M., Elliott, K. C., Booher, C. R., Renn, K. A., & Montgomery, R. A. (2021). The application of reflexivity for conservation science. *Biological Conservation*, 262, 109322. <https://doi.org/10.1016/j.biocon.2021.109322>
- Bell, S., & Morse, S. (2013). How People Use Rich Pictures to Help Them Think and Act. *Systemic Practice and Action Research*, 26(4), 331–348.  
<https://doi.org/10.1007/s11213-012-9236-x>
- Bennett, N. J. (2018). Navigating a just and inclusive path towards sustainable oceans. *Marine Policy*, 97, 139–146. <https://doi.org/10.1016/j.marpol.2018.06.001>
- Bennett, N. J. (2019). Marine Social Science for the Peopled Seas. *Coastal Management*, 47(2), 244–252. <https://doi.org/10.1080/08920753.2019.1564958>
- Bennett, N. J., Blythe, J., White, C., & Campero, C. (2020). Blue growth and blue justice: Ten risks and solutions for the ocean economy. *Marine Policy*, 125.  
<https://doi.org/10.1016/j.marpol.2020.104387>
- Boothby, E. J., Clark, M. S., & Bargh, J. A. (2014). Shared Experiences Are Amplified. *Psychological Science*, 25(12), 2209–2216.  
<https://doi.org/10.1177/0956797614551162>
- Brown, M. J. (2020). *Science and moral imagination a new ideal for values in science*. University of Pittsburgh Press: Pittsburgh.
- Bryse, K., Oreskes, N., O'Reilly, J., & Oppenheimer, M. (2013). Climate change prediction:

- Erring on the side of least drama? *Global Environmental Change*, 23(1), 327–337.  
<https://doi.org/10.1016/j.gloenvcha.2012.10.008>
- Buijs, A., & Lawrence, A. (2013). Emotional conflicts in rational forestry: Towards a research agenda for understanding emotions in environmental conflicts. *Forest Policy and Economics*, 33, 104–111. <https://doi.org/10.1016/j.forpol.2012.09.002>
- Bunch, M. J. (2003). Soft Systems Methodology and the Ecosystem Approach: A System Study of the Cooum River and Environs in Chennai, India. *Environmental Management*, 31(2), 182–197. <https://doi.org/10.1007/s00267-002-2721-8>
- Charbonneau, A. (2012). Integrated coastal planning: ‘Wicked’ problems and ‘clumsy’ solutions. *The Arbutus Review*, 3(1). <https://doi.org/10.18357/tar31201211527>
- Charmaz, K. (2006). *Constructing grounded theory*. Sage Publications: Thousand Oaks.
- Checkland, P. (1981). *Systems thinking, systems practice*. Wiley: Hoboken.
- Checkland, P., & Scholes, J. (1990). *Soft systems methodology in action*. John Wiley & Sons: Hoboken.
- Clark, M. S., & Mills, J. (1979). Interpersonal attraction in exchange and communal relationships. *Journal of Personality and Social Psychology*, 37(1), 12–24.
- Clark, M. S., & Mils, J. (1993). The Difference between Communal and Exchange Relationships: What it is and is Not. *Personality and Social Psychology Bulletin*, 19(6), 684–691. <https://doi.org/10.1177/0146167293196003>
- Clark, S. E., Magrane, E., Baumgartner, T., Bennett, S. E. K., Bogan, M., Edwards, T., Dimmitt, M. A., Green, H., Hedgcock, C., Johnson, B. M., Johnson, M. R., Velo, K., & Wilder, B. T. (2020). 6&6: A Transdisciplinary Approach to Art–Science Collaboration. *BioScience*, 70(9), 821–829. <https://doi.org/10.1093/biosci/biaa076>
- Clarke, V., Braun, V., Frith, H., & Moller, N. (2019). Editorial Introduction to the Special Issue: Using Story Completion Methods in Qualitative Research. *Qualitative Research in Psychology*, 16(1), 1–20. <https://doi.org/10.1080/14780887.2018.1536378>

- Clayton, S. (2018). Mental health risk and resilience among climate scientists. *Nature Climate Change*, 8(4), 260–261. <https://doi.org/10.1038/s41558-018-0123-z>
- Costa, A. C., Fulmer, C. A., & Anderson, N. R. (2018). Trust in work teams: An integrative review, multilevel model, and future directions. *Journal of Organizational Behavior*, 39(2), 169–184. <https://doi.org/10.1002/job.2213>
- Creswell, J. (2009). *Research Design: Qualitative, Quantitative, and Mixed-Method approaches*. SAGE Publications: Thousand Oaks.
- de la Fuente, J. (2020). The exquisite corpse for the advance of science. *Arts et Sciences*, 4(3). <https://doi.org/10.21494/ISTE.OP.2020.0506>
- Duggan, J., Haddaway, N. R., & Badullovich, N. (2021). Climate emotions: It is ok to feel the way you do. *The Lancet Planetary Health*, 5(12), e854–e855. [https://doi.org/10.1016/S2542-5196\(21\)00318-1](https://doi.org/10.1016/S2542-5196(21)00318-1)
- Gaziulusoy, A. I., Ryan, C., McGrail, S., Chandler, P., & Twomey, P. (2016). Identifying and addressing challenges faced by transdisciplinary research teams in climate change research. *Journal of Cleaner Production*, 123, 55–64. <https://doi.org/10.1016/j.jclepro.2015.08.049>
- Gramelsberger, G. (2010). *Computerexperimente. Zum Wandel der Wissenschaft im Zeitalter des Computers* (Vol. 42). Transcript: Bielefeld.
- Green, M. C. (2021). Transportation into Narrative Worlds. In L. B. Frank & P. Falzone (Eds.), *Entertainment-Education Behind the Scenes* (pp. 87–101). Springer International Publishing: New York.
- Groeneveld, R. A. (2020). Welfare economics and wicked problems in coastal and marine governance. *Marine Policy*, 117, 103945. <https://doi.org/10.1016/j.marpol.2020.103945>
- Guillotreau, P., Trouillet, B., Mahévas, S., & Pardo, S. (2020). Addressing transdisciplinary and participation issues to cope with rapid changes shifting marine social ecological

- systems. *Marine Policy*, 117, 103929. <https://doi.org/10.1016/j.marpol.2020.103929>
- Hall, K. L., Vogel, A. L., Stipelman, B. A., Stokols, D., Morgan, G., & Gehlert, S. (2012). A four-phase model of transdisciplinary team-based research: Goals, team processes, and strategies. *Translational Behavioral Medicine*, 2(4), 415–430. <https://doi.org/10.1007/s13142-012-0167-y>
- Halpern, B. S. (2020). Building on a Decade of the Ocean Health Index. *One Earth*, 2(1), 30–33. <https://doi.org/10.1016/j.oneear.2019.12.011>
- Halpern, B. S., Frazier, M., Afflerbach, J., Lowndes, J. S., Micheli, F., O'Hara, C., Scarborough, C., & Selkoe, K. A. (2019). Recent pace of change in human impact on the world's ocean. *Scientific Reports*, 9(1), 11609. <https://doi.org/10.1038/s41598-019-47201-9>
- Haraway, D. (1988). Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. *Feminist Studies*, 14(3), 575. <https://doi.org/10.2307/3178066>
- Head, B. W. (2008). Wicked Problems in Public Policy. *Public Policy*, 3(2), 101–118.
- Head, L., & Harada, T. (2017). Keeping the heart a long way from the brain: The emotional labour of climate scientists. *Emotion, Space and Society*, 24, 34–41. <https://doi.org/10.1016/j.emospa.2017.07.005>
- Holste, J. S., & Fields, D. (2005). The relationship of affect and cognition based trust with sharing and use of tacit knowledge. *Academy of Management Proceedings*, 2005(1), B1–B6. <https://doi.org/10.5465/ambpp.2005.18779269>
- Innes, M. (2002). Satir's Therapeutically Oriented Educational Process: A Critical Appreciation. *Contemporary Family Therapy*, 22.
- Irwin, R. L. (2013). Becoming A/r/tography. *Studies in Art Education*, 54(3), 198–215. <https://doi.org/10.1080/00393541.2013.11518894>
- Januchowski-Hartley, S. R., Giannoulatou, I. D., & Sahni, A. (2022). Playing in the water: An

- exquisite corpse and found river and underwater poems. *Cultural Geographies*, 29(1), 141–149. <https://doi.org/10.1177/14744740211039827>
- Jouffray, J.-B., Blasiak, R., Norström, A. V., Österblom, H., & Nyström, M. (2020). The Blue Acceleration: The trajectory of human expansion into the ocean. *One Earth*, 2(1), 43–54. <https://doi.org/10.1016/j.oneear.2019.12.016>
- Jue, M. (2020). *Wild blue media: Thinking through seawater*. Duke University Press: Durham.
- Jung, J., Owens, D., Berardi B., Juniper, K., Mistry J. (2021). Developing Empathy and Embracing Multiple Ways of Knowing about Ocean Science through a Participatory Art Process. Poster presented at the “Science and Society: Art and Science” session, 2020 AGU Fall Meeting, Online Event, 13-17 Dec 2021  
<https://doi.org/10.1002/essoar.10509459.1>
- Kemmis, S., McTaggart, R., & Nixon, R. (2014). *The action research planner—Doing critical participatory action research*. Springer Singapore: Singapore.
- Kemmis, S., McTaggart, R., & Retallick, J. (Eds.). (2004). *The action research planner* (2nd rev). Aga Khan University, Institute for Educational Development: Karachi.
- Khan, A. S., & Neis, B. (2010). The rebuilding imperative in fisheries: Clumsy solutions for a wicked problem? *Progress in Oceanography*, 87(1–4), 347–356.  
<https://doi.org/10.1016/j.pocean.2010.09.012>
- Kitzinger, C., & Powell, D. (1995). Engendering infidelity: Essentialist and social constructionist readings of a story completion task. *Feminism & Psychology*, 5, 345–372. <https://doi.org/10.1177/0959353595053004>
- Krauß, W. (2015). Linking sediment and sentiment: On observing a sci-art project. *Journal of Science Communication*, 14(01), C04. <https://doi.org/10.22323/2.14010304>
- Laursen, B. K., Gonnerman, C., & Crowley, S. J. (2021). Improving philosophical dialogue interventions to better resolve problematic value pluralism in collaborative

- environmental science. *Studies in History and Philosophy of Science Part A*, 87, 54–71. <https://doi.org/10.1016/j.shpsa.2021.02.004>
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate Peripheral Participation*. Cambridge University Press: Cambridge.
- Lev, M. (2020). Art as a mediator for intimacy: Reflections of an art-based research study. *Journal of Applied Arts & Health*, 11(3), 299–313. [https://doi.org/10.1386/jaah\\_00041\\_7](https://doi.org/10.1386/jaah_00041_7)
- Lindzey, G. (1959). On the classification of projective techniques. *Psychological Bulletin*, 56(2), 158–168. <https://doi.org/10.1037/h0043871>
- Marizzi, C., & Bartar, P. (2020). Art in Science and Science in Art—Reflections through the lense of Citizen Science. *Proceedings of Austrian Citizen Science Conference 2020 — PoS(ACSC2020)*, 022. <https://doi.org/10.22323/1.393.0022>
- McAllister, D. J. (1995). Affect- and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of Management Journal*, 38(1), 24–59. <https://doi.org/10.2307/256727>
- Moreno-Cely, A., Cuajera-Nahui, D., Escobar-Vasquez, C. G., Vanwing, T., & Tapia-Ponce, N. (2021). Breaking monologues in collaborative research: Bridging knowledge systems through a listening-based dialogue of wisdom approach. *Sustainability Science*, 16(3), 919–931. <https://doi.org/10.1007/s11625-021-00937-8>
- Myers, F. (2004). Social Agency and the Cultural Value(s) of the Art Object. *Journal of Material Culture*, 9(2), 203–211. <https://doi.org/10.1177/1359183504044373>
- Paterson, S. K., Le Tissier, M., Whyte, H., Robinson, L. B., Thielking, K., Ingram, M., & McCord, J. (2020). Examining the Potential of Art-Science Collaborations in the Anthropocene: A Case Study of Catching a Wave. *Frontiers in Marine Science*, 7, 340. <https://doi.org/10.3389/fmars.2020.00340>
- Pihkala, P. (2020). The Cost of Bearing Witness to the Environmental Crisis: Vicarious

- Traumatization and Dealing with Secondary Traumatic Stress among Environmental Researchers. *Social Epistemology*, 34(1), 86–100.  
<https://doi.org/10.1080/02691728.2019.1681560>
- Preece, J. (2004). Etiquette, Empathy and Trust in Communities of Practice: Stepping-Stones to Social Capital. *Journal of Universal Computer Science*, 10(3), 294–302.
- Rabin, A. I., & Zlotogorski, Z. (1981). Completion methods: Word association, sentence, and story completion. In A. I. Rabin (Ed.), *Assessment with projective techniques* (pp. 121–149). Springer.
- Rathje, S., Hackel, L., & Zaki, J. (2021). Attending live theatre improves empathy, changes attitudes, and leads to pro-social behavior. *Journal of Experimental Social Psychology*, 95, 104138. <https://doi.org/10.1016/j.jesp.2021.104138>
- Rittel, H. W. J., & Webber, M. M. (1973). *Dilemmas in a general theory of planning*. 15.  
<https://doi.org/10.1007/BF01405730>
- Root-Bernstein, B., Siler, T., Brown, A., & Snelson, K. (2011). ArtScience: Integrative Collaboration to Create a Sustainable Future. *Leonardo*, 44(3), 192–192.  
[https://doi.org/10.1162/LEON\\_e\\_00161](https://doi.org/10.1162/LEON_e_00161)
- Rousseau, D. M., Sitkin, S. B., Burt, R. S., & Camerer, C. (1998). Not so Different after All: A Cross-Discipline View of Trust. *The Academy of Management Review*, 23, 393–404.
- Ryabinin, V., Barbière, J., Haugan, P., Kullenberg, G., Smith, N., McLean, C., Troisi, A., Fischer, A., Aricò, S., Aarup, T., Pissierssens, P., Visbeck, M., Enevoldsen, H. O., & Rigaud, J. (2019). The UN Decade of Ocean Science for Sustainable Development. *Frontiers in Marine Science*, 6, 470. <https://doi.org/10.3389/fmars.2019.00470>
- Satir, V., Banmen, J., Gomori, M., & Gerber, J. (1991). *The Satir Model: Family Therapy and Beyond*. Science and Behavior Books: Palo Alto.
- Scârneci-Domni, F. (2013). *Narrative technique of interviewing*. Series VII - Social Sciences

- and Law in Bulletin of the Transilvania University of Braşov: Braşov.
- Smith, B. (2019). Some Modest Thoughts on Story Completion Methods in Qualitative Research. *Qualitative Research in Psychology*, 16(1), 156–159.  
<https://doi.org/10.1080/14780887.2018.1536396>
- Stengers, I. (2005). The Cosmopolitical Proposal. In B. Latour, P. Weibel, & Zentrum für Kunst und Medientechnologie Karlsruhe (Eds.), *Making things public: Atmospheres of democracy* (pp. 994–1003). MIT Press: Cambridge.
- Stevenson, A. (2021). *Fractals and Surrealism: A Pathway towards Rescuing Early Career Scientists' Creativity, and thus Scientific Discovery*. Preprint available at:  
<https://doi.org/10.13140/RG.2.2.23608.67842>
- Usoro, A., Sharratt, M. W., Tsui, E., & Shekhar, S. (2007). Trust as an antecedent to knowledge sharing in virtual communities of practice. *Knowledge Management Research & Practice*, 5(3), 199–212. <https://doi.org/10.1057/palgrave.kmrp.8500143>
- Visbeck, M. (2018). Ocean science research is key for a sustainable future. *Nature Communications*, 9(1), 690. <https://doi.org/10.1038/s41467-018-03158-3>
- Wenger, E. (1998). Communities of Practice: Learning as a social system. *The Systems Thinker*, 9(5), 1–5.
- Wenger, E. (2010). Communities of Practice and Social Learning Systems: The Career of a Concept. In C. Blackmore (Ed.), *Social Learning Systems and Communities of Practice* (pp. 179–198). Springer London.  
[https://doi.org/10.1007/978-1-84996-133-2\\_11](https://doi.org/10.1007/978-1-84996-133-2_11)
- Wilson, B., Hawkins, B., & Sim, S. (2015). Art, Science and Communities of Practice. *Leonardo*, 48(2), 152–157. [https://doi.org/10.1162/LEON\\_a\\_00972](https://doi.org/10.1162/LEON_a_00972)
- Zhang, M. J., & Chen, H. (2018). To Ask or Not to Ask: The Roles of Interpersonal Trust in Knowledge Seeking. *International Journal of Knowledge Management*, 14(1), 71–86.  
<https://doi.org/10.4018/IJKM.2018010105>

# Appendix 1: Facilitation Email Templates

## 1. Sign-up information following kick-off Meeting

Hi Everyone,

Thanks again for expressing interest in joining our 'Exquisite Corpse' Research project and to those of you who joined our intro meeting yesterday!

We are really excited to start and are going to kick-off our project and start creating on Sep 24.

On that day, we are going to release the 'seed' to you, which is our initial prompt to create our first art project in response to.

The overall timeline for the project is going to be like this:

by Sep 24: complete pre-process survey, return consent form and start creating

Oct 8: Completion of your first art project and first handover (you will pass your project on to another participants and receive another art project from someone else, the project you receive is your new prompt for your second project)

Oct 22: Completion of your second art project and second handover

Nov 5/7: Completion of your third art project and final Corpse Party (exact time and date tbd)

To sign up, could you please read the attached participant information sheet and if you agree, sign and return the consent form to me before Sep 24.

If you missed our intro meeting with a more in-depth explanation of the process or would like to re-watch it, you can find the recording of it here:

Link: XXX

If you have any other questions about the project, I'm really happy to talk more about it and am very keen and hopeful to start this process with you!

Best wishes and many thanks,  
Julia

## 2. Starting Email for the process

Dear Exquisite Corpse Players,

Thanks so much for joining, I'm so happy to have you all on board and very excited to kick off our Exquisite Corpse Project today!

From today on, you'll have two weeks, until Oct 8 midnight PST to create your first art project based on the seed video linked below here in this email.

Before taking a look at the seed, please take 10 minutes to fill in our pre-process survey here: <https://forms.gle/xy8DGMGVUiTUQQzP9>

Just a quick reminder of the general rules and process:

1. The choice of medium for your project is entirely up to you, whatever medium you would like to use to express yourself is great.
2. The angle or perspective you take on our seed is also entirely up to you and I encourage us to use this space very freely to express whatever shows up for you when engaging with the seed.
3. Remember to keep your project secret from the other players until the final party.

I will be in touch a few days before Oct 8 with instructions on how the first handover is going to work and who you're going to pass your project on to.

If you have any other questions or issues, just let me know!

And now, without further ado, here is our seed:

<https://us02web.zoom.us/rec/share/MOP--RgPUmhFcIEGyL1ZDyu92FRh-3gD1oBy7xzGqTgl-HQG1IJP1rxyDUROT3Q.ck6qMwztQyCA8Hmu>

Passcode: #pa2\$5jk

Very curious to see what we will all end up with, happy corpsing and best wishes,  
Julia

### 3. First hand-off instructions

Dear Exquisite Corpse Players,

It's time for the first hand-off and I hope you're all excited to share your creation with someone else! Simply check the list below and you can use the email address from everyone in cc to contact them and send them a link/photo/video/attachment with your project.

Here's a brief explanation for how this is going to go and for the words you're about to encounter:

For organizational purposes, every thread (the set of projects building on each other) is assigned a name and every project within that thread is assigned a number. This name/number combo gives me a way to keep track of your projects while maintaining their mystery. It is NOT the name of your project - you will have an opportunity to provide a name and medium description for your projects before the final party. All of our threads are named after cetaceans simply because I needed an easy category to follow and it's a nice theme.

Here are your first passing instructions:

Participant A passes Project Violet 1 to Participant E. Participant E creates Project Violet 2.

Participant B passes Project Blue 1 to Participant A. Participant A creates Project Blue 2.

Participant C passes Project Orange 1 to Participant B. Participant B creates Project Orange 2.

Participant D passes Project Green 1 to Participant C. Participant C creates Project Green 2.

Participant E passes Project Yellow 1 to Participant D. Participant D creates Project Yellow 2.

So, please send your projects along by 12 midnight PST today! If there are some of you where you feel like your projects aren't really working out the way you wanted to, please share them anyways - whatever you choose to share is totally fine. The whole point is to just explore freely within the two weeks and share whatever projects or ideas come up instead of making them perfect. So, whatever you have - send it along and I'm sure it'll be a great inspiration for someone else :)

From tomorrow morning on, you will have two weeks again (until Oct 22) to create your second project and I'll be in touch a few days before the handover again.

As always, if you have any questions or concerns in the meantime, just let me know!

Warm wishes,  
Julia

## 4. Second hand-off instructions

Dear Exquisite Corpse Players,

Here are your passing instructions for the second hand-over:

Participant E passes Project Violet 2 to Participant C. Participant C creates Project Violet 3.  
Participant A passes Project Blue 2 to Participant D. Participant D creates Project Blue 3.  
Participant B passes Project Orange 2 to Participant E. Participant E creates Project Orange 3.  
Participant C passes Project Green 2 to Participant A. Participant A creates Project Green 3.  
Participant D passes Project Yellow 2 to Participant B. Participant B creates Project Yellow 3.

Just like before, send your project onto the next person by midnight Pacific time today and you will have two weeks until our party on Nov 6 to create your last project. I'll be in touch a few days before the party with some more instructions for how that's going to go, but until then I hope you have a really nice time creating your final project!

Best wishes,  
Julia

## 5. Party Instructions

Dear Exquisite Corpse Players,

I hope you're all doing well and getting on with your final project as we're almost at the final part of this endeavor with our Corpse Party to share and review the collective art we've created.

With this email, here are the instructions for how this final part is going to work.

### 1. Timing and Joining Link

Time: Nov 6, 2021 11:00 AM Pacific Daylight Time, Vancouver (19:00 Central European Time).

Join Zoom Meeting

<https://us02web.zoom.us/j/85061445651?pwd=enRTNVpmZEZ4OC9HQUK2UFNQSHlOdz09>

Meeting ID: 850 6144 5651

Passcode: 014640

### 2. Upload your projects

I'll send each of you a link to a google folder with a subfolder for each project. Please upload your projects to their corresponding folders until Saturday. This is how I am able to access them during the party.

Only you and I have access to these folders, and I will not look at your projects before the party -- I like to be surprised by them, too. :) After the party, I'll grant everybody access to all of the folders (unless you don't want me to).

### 3. Send me your names!

Before Saturday, please reply to me on this email with the following information for each of your projects:

Thread name/number

Title

Medium

Content matter/ trigger warning, if relevant (so if your art contains elements/ deals with topics that might be triggering you can put a trigger warning or description here)

See P.S. for a few example title/medium/etc. combos. You will also find a list of what projects each of you owes titles on.

As always feel free to ask clarifying questions. Otherwise, can't wait to see what collective art we have wrought on Saturday!

Best wishes,  
Julia

PS - Example Project Names:

Indian Ocean 3

Title: my river of life

Medium: photography

Content warning: N/A

Kumquat 2

Title: Getting lost while feelings small

Medium: Video

Content warning: 2 images with blood though it's not very graphic at all

Antechinus 1

Name: Starsong: Episode 3 - Something Familiar

Medium: Radioplay

Content warning: moral quandaries of time travel

PPS - Projects What you each owe:

Participant A

Orca 1

Sperm Whale 2

Gray Whale 3

Participant B

Sperm Whale 1

Vaquita 2

Blue Whale 3

...

## 6. More Informal Introductory Email Elements

### What Is the Exquisite Corpse Project?

The Exquisite Corpse Project is a multi-week art project in which several players are given the same prompt and tasked with creating something in response to that prompt. What they create and the medium they create it in is entirely up to them. Mediums may include writing, painting, sculpture, baking, needlepoint, film, music, dance, or anything else that catches a player's fancy. The only rule is that the projects must be passed along to another player at the end of two weeks, so you are working within a limited time frame.

By 11.59 PM Sunday CET at the end of week two, players will deliver their creations (via email, a photo/video/etc.) to another player as well as receive a project from someone else. The received project is your new prompt and the process repeats. Who you are passing your project to will be assigned, but you won't know who it is until a couple days before the due date.

The cycle will repeat 6 weeks (3 projects), culminating in the Corpse Party on Sunday 13 Dec, where players will present their projects to the rest of the group, and we can see what collective art we have wrought.

TL;DR: We're playing telephone with art.

### Where does the Corpse Project come from?

The art exercise Exquisite Corpse was invented in 1925 in Paris by the surrealists Yves Tanguy, Jacques Prévert, André Breton and Marcel Duchamp. It involved a game wherein players would draw or write a portion of an image or poem, then fold back what they had written, leaving only a tiny hint for the next player to use as inspiration. You likely played some version of this game when you were a kid. The name 'cadavre exquis' was derived from the first time they played the game, when their collective subconscious spat out the line, "le cadavre exquis boira le vin nouveau" ('the exquisite corpse will drink the new wine'). Creepy.

The original Corpse Project was created by Roz Ray, a friend of a friend, in 2010, and it has since gone through many iterations with an ever-changing cast of players. That friend of mine organized the first international corpse project in September 2020, which I was part of and loved, so now I'm drawing you into this beautiful idea! :)

#### The Rules:

1. **Be punctual!** Projects are due at 11.59 PM CET on Sunday. Do not be late! Every moment you are late is a moment you are stealing from your fellow player. Don't be That Guy.
2. **Don't be a cupcake!** If you are unable to complete a project by the deadline, you are a cupcake. This means that you have to buy/make your assigned person a cupcake (or other treat of their choosing) by way of apology, and draw them a stick figure to use as their prompt. I don't know how you would do this across international borders, so it's probably better if you just don't miss your handoffs. If you have an unfinished project, it's better to pass that along than nothing at all -- the key is to give the next person something to draw from for next week.
3. **No spoilers!** Do not post your projects on social media or discuss them with other players until after they have been presented at a Corpse Party. The nature of your projects must remain secret to all other players, though you are free to discuss them with (or get help from!) people who aren't playing. Once the Corpse Party is over, you can do whatever you want with your creations. You could even burn them!

Final note: Your projects do not have to be Good Art. Arguably, it might even be better if your art is stupid and/or terrible -- that's a lot more interesting. What even is good art, anyway? IDK, sounds boring. Just have fun with it.

#### Schedule:

Friday, 6 November: Deadline to submit your seed suggestion.

Monday, 9 November: Deadline to vote on seeds.

Tuesday, 10 November: Seed is distributed.

Sunday, 22 November: First handoff, by 11.59 CET.

Sunday, 6 December: Second handoff, by 11.59 CET.

Saturday, 13 December: Corpse Party! (exact time TBD - perhaps 8pm CET)

I changed the schedule slightly so we only have 1 week for the last project instead of 2 so that we don't run into the stressful christmas time too much - I hope that's okay :)

#### What I need from you:

Please respond to this email with your suggestion for what our seed should be. Seeds can be anything in any medium -- song, painting, philosophical concept, meme, etc. -- so long

as they can be reasonably seen/read/experienced in a short period of time during seed consideration (no novels or feature length movies, please). Suggestions must be submitted before 11.59 CET on Friday, 6 November (I know that's not super long time, but let's just go with whatever comes into our heads - this is a new thing for all of us so let's not give us a chance to think too much about it).

## Appendix 2: Invitation for Participants

# Invitation for Participants

Are you interested in Ocean Art - Ocean Science?

Are you keen to explore marine science in an alternative way?

Would you like to become part of an interdisciplinary community centered around creating and sharing ocean art?

### **Join the 'Exquisite Corpse Project'!**

#### What is this project?

It's a participatory method and multi-week art research project to test a new method for Ocean Art, Ocean Science to strengthen social cohesion, develop empathy and embrace multiple ways of knowing about marine topics.

#### How does the project work?

All participants will be given the same prompt and tasked with creating something in response to that prompt. The medium you use to create your art project is entirely up to you (writing, painting, photography, sculpture, baking, needlepoint, film, music, dance, or literally anything else). After two weeks, you will pass your project to someone else (via email, which may include attachments or links to a photo/video/etc.) and you will receive a project from someone else. The received project is your new prompt and the process repeats.

The cycle develops over 6 weeks (3 projects), culminating in a final virtual meeting (Corpse Party!), where participants present their creations to the rest of the group to share the collective art that has been produced and reflect openly on each piece and the overall process.

As part of the research, we will also ask you to complete a survey before and after the process and we will record, transcribe and analyse the final Corpse party.

#### What do you get out of it?

Be part of an innovative art project, explore your artistic side more freely and become part of the emerging Ocean Art, Ocean Science community.

#### Who is running this project?

The project is jointly run between the Cobra Collective and Ocean Networks Canada. Julia Jung will be the main researcher and facilitator and is supported by Dwight Owens, Kim Juniper, Andrea Berardi and Jay Mistry.

#### How can I sign up?

Send an email to Julia [JJEduOcean@gmail.com](mailto:JJEduOcean@gmail.com) to express your interest. In early September, we will run a virtual mini-introductory workshop for us all to meet and where we will clearly explain the process again. After the workshop and meeting us, you can confirm your participation and we can start creating some art together.