

Transformation, translation, or reproduction?

How did digitalisation affect non-digital artworks from the global pandemic? And how can this re-understanding of digitally transformed artworks provide insight into art practice and curation in such a digitalising tendency?

Chengwei (Toby) Mao, MA, BA (Hons), BA

Supervisors:

Dr Michael Pierre Johnson

Dr Aude Le Guennec

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at the Innovation School, Glasgow School of Art.

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Declaration

I, Chengwei (Toby) Mao, declare that this full-thesis submission for the degree of Master of Research is my own work, and has not been submitted for any other academic award.

Chengwei (Toby) Mao, Glasgow, UK, October 2023

Abstract

The pandemic of Covid-19 had an impact on art practice, curating and visiting since 2020. This research project used digitally transformed artworks (DTA) as a focal point to explore the materiality of those non-digital artworks presented on online platforms. The project used Merleau-Ponty's and Moustakas' transcendental phenomenology in data collection, then interpreted, and framed the physical exhibition experience using 'Interpretative Phenomenological Analysis' in fieldwork based on Mhairi Killin's *On Sonorous Seas* (2022) at GSA Reid Gallery. The project re-evaluated three online examples using visual methods, and then developed an 'Object-Oriented' model to reflect the communication errors, and articulated other issues related to digitally transformed artworks (DTA) in the digitalised contemporary art context.

Personal Statement

A Dialogue with a Dough, 2019 is a performance during my MA study at the Royal College of Art under Dr Eleni Ikoniadou's brief *Make Something Speak*. It was a performance work with flour and black coffee. I mixed two materials and made a dough. Through this process, I interacted with the 'thing' and ate it in the end. While performing, I aimed to question the expression of human emotions and experimented with the form of inner dialogue. The work tried to discover the possibility of communication forming in an abnormal state. And it tried to create a conceptual communication between objects and the human body as material. Unlike verbal conversation, why couldn't physical interactions with objects and materials be regarded as a dialogue?

After the presentation to some colleagues and tutors, some feedback was questioned about the meaning of using visual elements. Black coffee and white flour were considered too strong and racial-oriented visual elements, which were advised as "inappropriate". The flour selection was initially thought to be a material that did not contain any meaningful directivity. Therefore, I found different levels of audiences' understanding of this work. The feedback made me think about the use of the element in artwork. How do people look at objects (materials or visual elements) in an artwork? Why did video documentation change and switch communication results from live performance? How much additional information should I provide to help the audiences understand the concept of the work? And are the presentation and verbal description also regarded as the main element of the artwork? These questions confused me until now and urged me to discover more about the communication between art objects and people.

And then, the pandemic struck, and I continued my practice with theoretical studies from home. Further thoughts developed through my MA thesis, 'The Layering Model', which was still trying to make sense of these complex relations between humans and art objects at that moment. The pandemic raised another awareness in the artwork format on me: the physical artwork's documentation. My projects were led by my 'misread' of philosophical theories, all-time confusion and curiosity about observing the world. It reached the point of questioning digitally transformed artworks, now and here.

Reviewing this 'short' research journey, firstly, I want to send my appreciation to my supervisors, Dr Michael Pierre Johnson and Dr Aude Le Guennec, for their all-time patience and support. Also, thanks to Dr Marianne McAra and Prof Lynn-Sayers McHattie for the fantastic organising in the seasonal schools, book clubs and research trainings

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Sincerely, thank you all so much for making this project happen.

List of Key Acronyms in This Thesis

DTA (Digitally Transformed Artworks): the digital transformation copies (by photography, audio and/or video recording, digital scanning and/or printing, 3D scanning and other digital techniques) of physical artworks (that were intended to be made, exhibited and viewed in a non-digital/physical environment.)for display and access on any digital platform.

OOO ('Object-Oriented Ontology'): a speculative realism philosophy theory developed by Graham Harman in the book *Object-Oriented Ontology: A New Theory of Everything*. The main ideas of OOO were summarised by Andrew Cole as follows: "First, everything is an object, including you and each of your thoughts. Second, and accordingly, no object relates to any other object, because the universe itself is devoid of all relation. [...] Third – and finally – all objects are equal and, ontologically speaking, on the same plane" (Cole, 2015). The main terminologies used in 'Object-Oriented Philosophy' are: **RO** (Real Object), **SQ** (Sensual Quality), **SO** (Sensual Object), and **RQ** (Real Quality).

IPA ('Interpretive Phenomenological Analysis'): a qualitative research method (mainly inspired by the work of Edmund Husserl, Martin Heidegger and Maurice Merleau-Ponty), initially used in psychology studies and now widely influences social science and other research disciplines (Smith and Nizza, 2022).

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Chapter 1.

INTRODUCTION

1.1 Research context

During the global pandemic in 2020, there was a considerable challenge to the communication context of art. Many galleries and art spaces needed to reduce the number of visits or even close down. Due to these restrictions, many physical venues placed their exhibitions online. To some extent, physical art objects, like installations and sculptures, were forced to be transferred into a digital format: the Royal Academy of Arts (London) showed a VR documentation of Ai Weiwei's exhibition (Royal Academy of Arts, 2020), UCCA Centre of Contemporary Art (Beijing) held a number of online live-streaming tours for people (UCCA Centre of Contemporary Art, 2020). With the closing down of exhibition spaces, physical exhibitions were transformed into digital materials taking forms such as website pages, social media profiles (Instagram and Linktree) and XR experience (Matthews, 2021; Mao 2021).

Digital art existed and was popular far before the pandemic in 2019. Thomson-Jones and Moser (2022, no pagination) defined digital art as "art that relies on computer-based digital encoding, or on the electronic storage and processing of information in different formats – text, numbers, images, sounds – in a common binary code". In their essay *The Philosophy of Digital Art*, they reflected on the complexity of digital art caused by the making format and the apprehension format. An example of these, is a film that was produced purely digitally but was being projected in the cinema for people to watch, which made it difficult to define whether this piece was digital art. This complexity inspired me to further narrow down the definition of digitally transformed artworks by not only looking at how the work is made, but also how it is curated and made accessible to audiences.

Therefore, in this research the term digitally transformed artworks (DTA), targets those art objects whose apprehension format are based on a physical form, and due to physical restrictions or other curatorial considerations caused by the pandemic in 2020, those artworks were documented and published on many digital platforms. For example, painting works that were photographed and published on a webpage, or a projected video installation that was recorded in a physical space and was posted online. Artworks which do not rely on physical apprehensions or that already incorporate digital presentations are not considered as a part of this study. For example, a video artwork where the video file was directly presented online (Fig.1), or a photography work that was posted online without any physical space reference. This documenting process of artworks in a physical space added another layer of complexity, which is the focal point in this project.

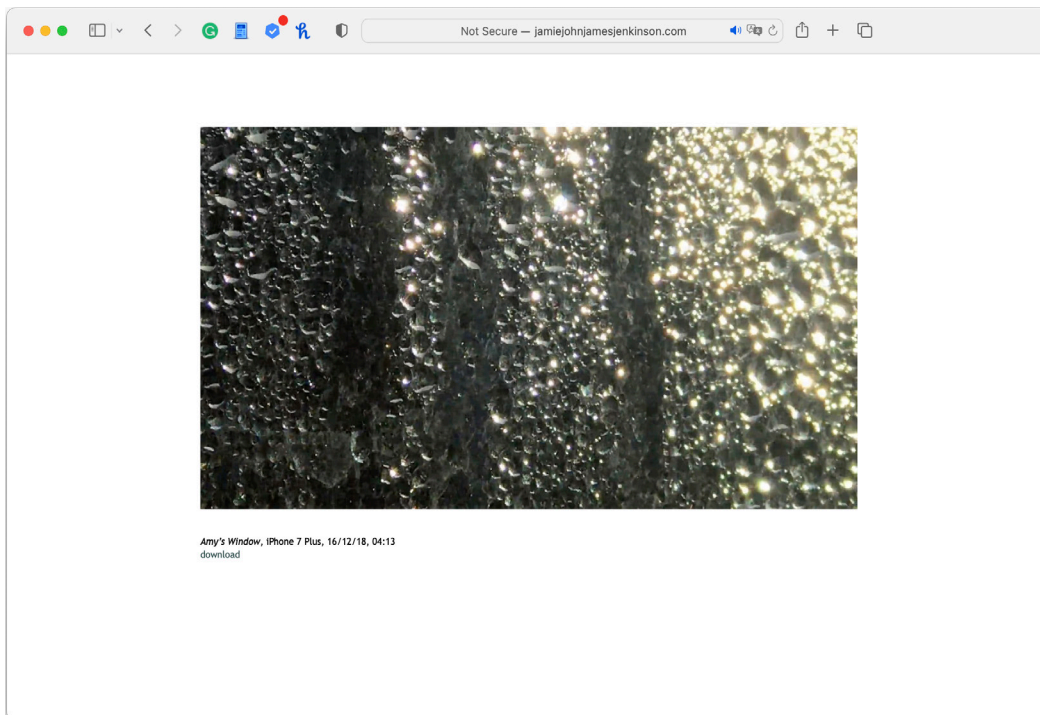


Figure 1, *Amy's Window*, (Jenkinson, 2018)

Such digital transformation was widely used in digital archives before the pandemic. The difference here is that pre-2020, people could access the digital documentations and the physical pieces if they chose to. The pandemic of Covid-19 raised a collective awareness that continues to strongly influence art practice¹.

Taking the RCA 2020 graduation shows as an example, interestingly, during the preparation process for the graduate show in 2020, there were several online protests (Compson, 2019) and arguments through college emails and Instagram. Students (and some of the educational faculties) were aware that the online exhibitions would not work similarly to physical ones even before the preparation process started. But what made such a difference? Similar issues were addressed around these phenomenology and ontology investigations around artworks. The differences in medium raised phenomenological questions; for example, "whether there are any differences from seeing three apples, a photo of three apples and a painting of three apples?" Ontological questions on artworks' properties such as, if we should regard a work of art as the feeling from 'harmony of the faculties' or a purely aesthetic experience? Or could we discuss these issues from the neuroscience or semiotics approaches (Bundgaard and Stjernfelt, 2015, pp.3-5)? These questions have always been confusing to me through my practices. What are those documentations? How did they come in relation to the original works? Therefore, from a perspective of emphasis on artworks themselves and on the communication receiver, I will try to re-understand the digitally transformed artworks through a phenomenological lens in this project.

1. Further observations about online exhibitions in the research period will be presented in Appendix D.1, observations and reflections on online exhibitions in the UK institutions from 2020 to 2021.

1.2 Research questions

Transformation, translation, or reproduction?

How did digitalisation affect non-digital artworks from the global pandemic? And how can this re-understanding of digitally transformed artworks provide insight into art practice and curation in such a digitalising tendency?

To answer these core questions, I explore the following sub-questions in my fieldwork and discussion:

How do we experience, interact and interpret artworks in a physical exhibition example, and what could be an alternative experiential framework based on these physical experience discoveries?

How can we use an experiential framework to re-evaluate the artworks that have been digitally transformed onto online platforms and does it provide new understanding of these digitally transformed artworks?

What are the possible discoveries from the re-evaluating process and how could these discoveries reflect on digitalised art practice and curation?

1.3 Aims and objectives

This research project aims to question the properties of digitally transformed artwork (DTA) during and after the pandemic 2019; to re-understand and re-evaluate DTA under the digitalised exhibiting context; by using DTA as a focal point to open a conceptual discussion about the relation and materiality of art objects in the post-pandemic environment².

2. The researcher is aware of the ongoing situation of pandemic around the world. However, based on the current situation of the research context (the United Kingdom), this project will use the term 'post-pandemic' to refer to the circumstance while conducting this research project.

The project attempts to discuss and uncover a new understanding of digitally transformed artworks and the objectives are:

1. By reviewing the previous eastern and western theories on 'subject' and 'object', 'thing' and 'artwork'; taking a transcendental phenomenology perspective (Merleau-Ponty, 2002) and under the consideration of the realism, existentialism and speculative realism philosophy genres, this study will structure fieldwork to generate our experience with physical art objects;
2. By reviewing and analysing the data collected from the fieldwork with 'Interpretative Phenomenological Analysis' (Alase, 2017) method, this project will demonstrate discoveries and develop a potential experiential framework based on art objects in physical exhibition settings;
3. This project will then analyse three online exhibition examples (based on three mediums) by using the experiential framework through a visual ethnographical approach to re-understand the digitally transformed artworks;
4. Combining with the experiential framework, 'Object-Oriented' object analysis and discoveries through the fieldwork, the project will develop a DTA model to articulate the possible issues, causality and insights with digitally transformed artworks.

1.4 Research structure and thesis presentation

The structure of this thesis will follow the process of this research project and is divided into seven chapters. Firstly (apart from this introduction chapter), the literature review, where I will discuss existing object and art object analysis theories (things themselves and their relation) by borrowing the ‘-mining’ system from Graham Harman. I will then review some of the critical concepts of the ‘Quadruple Object’ and their relations from ‘Object-Oriented Philosophy’, which will be involved in this project. The literature review chapter will end with a brief critique of my previous study on art object analysis, ‘The Layering Model’ (Mao, 2021). Secondly, the methodology chapter will articulate the methodological considerations around transcendental phenomenology (Merleau-Ponty, 1963, and Moustakas, 1994), ‘Interpretative Phenomenological Analysis’ (‘Hermeneutic Phenomenology’), and visual ethnography (Pink, 2007; Van Den Scott, 2018) and introduce the fieldwork arrangement. Next, the discussion will be divided into two parts. Chapter 4 will present part one, where I will analyse the subjective data collected from fieldwork and understand their experiences. Data analysis will be under the ‘Interpretative Phenomenological Analysis’ method with the reflection from *Object-Oriented Ontology*. Sixteen experiential themes developed from data analysis will be summarised into an experiential framework of physical exhibitions. Discussion part two will be presented in Chapter 5, where I will use the experiential framework developed from Chapter 4, combined with visual ethnography methods to re-understand digitally transformed artworks from three online exhibition examples. An alternative DTA model developed from fieldwork discoveries and ‘Quadruple Object’ will also be introduced, which will be used to discuss the errors and issues around digitally transforming artworks. Chapter 6 will critically review the whole research project, including my reflection on the project structure, theoretical perspectives, DTA discussions, and the experience using ‘IPA’. And finally, this thesis will end with the conclusion chapter, which will summarise the discoveries and limitations through the whole project ‘adventure’. Future research will also be recommended in the chapter.

This project will mainly use a past tense and first-person pronoun, with the acknowledgement of the subjective phenomenological positions of the researcher. However, Chapter 3, Methodology, will use third-person pronouns, present, and future tense, and Chapter 6 will apply third-person pronouns and past tense. These variations are due to the consideration of keeping the researcher’s self-position at a distance while articulating the research methods, critical reflections, and rationales.

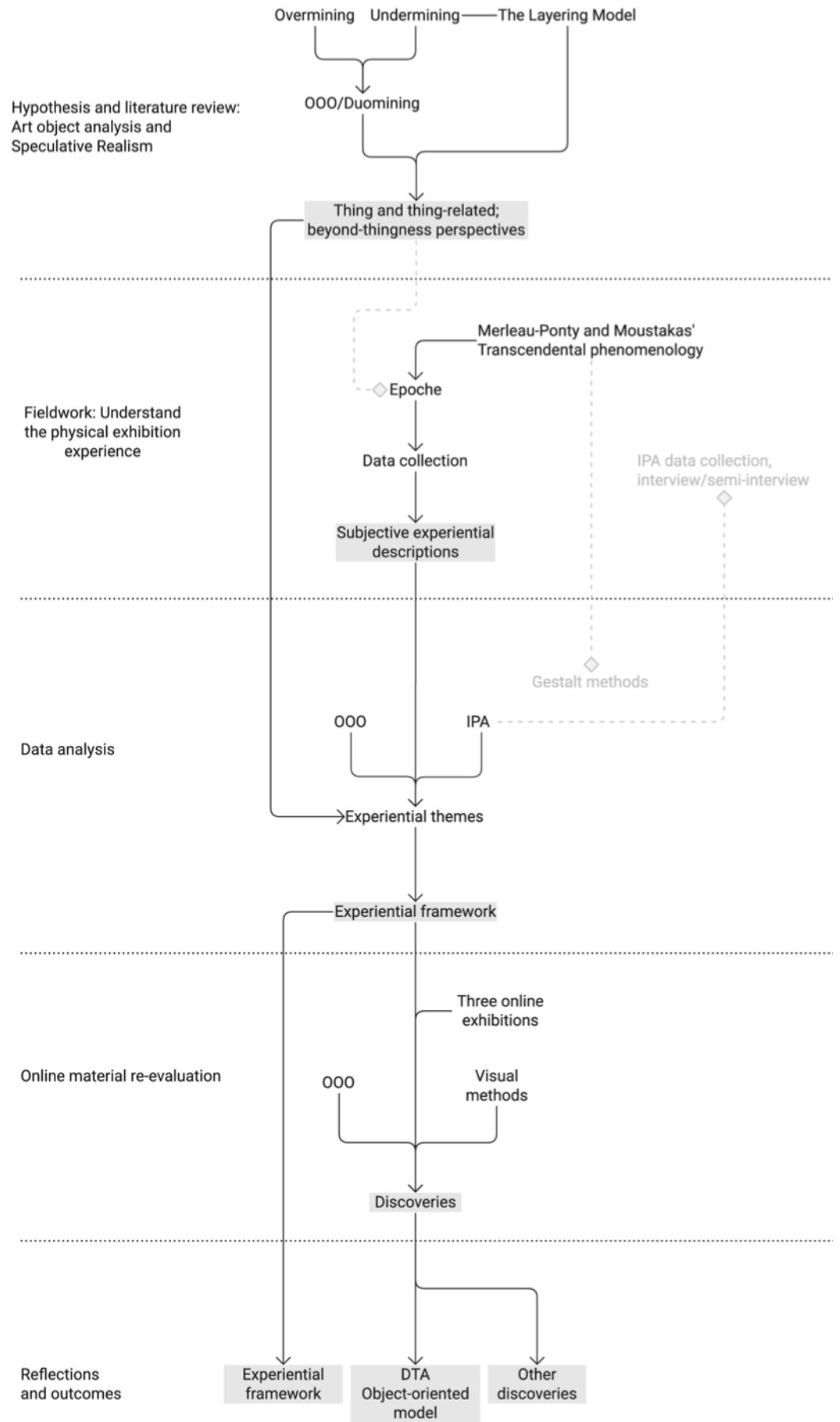


Figure 2, Project Structure, (Author owned, 2023)

Chapter 2.

LITERATURE REVIEW

There is extensive research discussing online exhibitions during the pandemic. Aydođan introduces the phenomenon in *Art Exhibitions During the Pandemic*, 2021. Many other perspectives have been explored: the experience of virtual technology (Bordini and Santos, 2021), artists' practice and art community (Baumann and Burke, 2021), art education (Matthews, 2021), curatorial methods (Feng, 2020), audience experience, and virtual spatial analysis (Amorim and Teixeira, 2020). However, it is rare for them to talk about the virtual platform on art objects themselves. I believe there should be room to discover the art object analysis specifically within the pandemic and post-pandemic context. My hypothesis is that access to the non-digital artworks is a very subtle area that still relies on the physical accessibility.

2.1 The thingness of an art object

It is always interesting to discuss how we are making meanings from things and, more specifically, art objects. Physical artworks such as installations often involve a compositeness of materials. Take Christian Boltanski's *Personnes* exhibited in the Power Station of Art (PSA), Shanghai, in 2018 as an example. The invigilator explained this work to the audience by the title of the work (*Personnes*); what it was made of (a crane and large pile of clothes); what the work did (The crane scooped up a pile of clothes, lifted them and released them in the air); what the story and representation of each material was (the clothes should be collected from the refugees which represents the lives of refugees); what the historical narrative was about this work (It was displayed in other countries before. People could smell the work outside the gallery space. But because of customs restrictions, the clothes at PSA were not collected from refugees); and the personal history of the artist. This verbal description of artwork represents how we access and interpret artwork by breaking down the whole piece into separate components, grasping the narrative around the object and processing to an overall idea. Therefore, this project understands the materiality of an art object by approaching an art object as a thing to understand the meaning of things and object analysis.

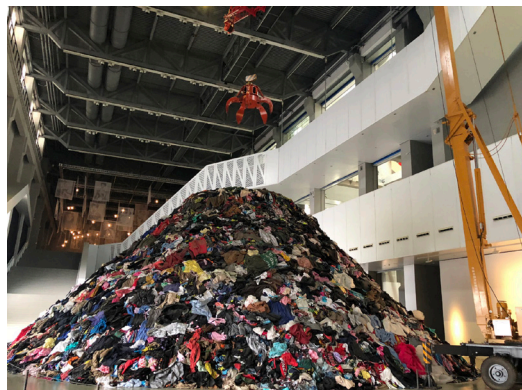


Figure 3, *Personnes*, (Boltanski, 2018)

While articulating *OOO*, Graham Harman reviewed the philosophy genres of object analysis under a classification of the ‘-mining’ system. He reviewed the idea that an object always consists of properties and materials and offered to undermine by looking for the basic components of a thing (Harman, 2018, p.40). For instance, Thales of Miletus believed that objects or the world were constructed by water, which was the primary principle (O’Grady, n.d.), like the air by Anaximenes (Lindberg, 1992, pp.123–147). And in between, Anaximander, the deeper root of everything is something shapeless, formless and limitless mass which they called Apeiron. Similarly, in the eastern philosophy system, Zai Zhang’s theory about ‘Qi’ (Chan, 1964), where ultimate things can only be the dynamic interaction between fundamental vital energy, ‘Qi’ (Perkins, 2019), while natural sciences break things down into atoms and other particles. Secondly, the overmining category suggested the object analysis method by reducing things to proprieties, relations and the impact on one another (Harman, 2018, p.47). Just as Hume’s ‘Bundle Theory’ (1888) believed there was no real thing but only a series of proprieties that we perceived, Latour and Whitehead argued that the entity is nothing but the relations and effects (Whitehead, 1985; Latour, 1993). Or Husserl’s existentialism insights on the emphasis of human consciousness (Husserl, 2001). There are some limitations of *OOO* the most obvious being the ambitious claim for it as a ‘theory of everything’. However, Harman’s classifying method is a useful tool and will be used in this section to structure the views around objects and art object analysis.

2.1.1 Undermining object analysis

As briefly introduced in the previous section, undermining is deconstructing a thing into its fundamental components and understanding them. The basic element can be on different scales based on different philosophical ideas. For example, a hammer is referred by Heidegger to be irreducible, but others can reduce it into atoms and even string vibration by quantum physics. This insight is similar in the art discipline as well. Some may claim an artwork is irreducible and should be considered a whole thing and explained through its moment of production, such as in Marxism (or the ‘Social History of Art’) (O’Sullivan, 2001). And others may think an artwork could be deconstructed by the materials and representations as the ‘New Art History’ (O’Sullivan, 2001), such as ‘the bloc of sensations’ by Deleuze and Guattari (1994, p.164). This fundamental component refers to Harman in *OOO* as “an object is anything that cannot be entirely reduced either to the components of which it is made or to the effects that it has on other things” (Harman, 2018, p.42). This means an artwork should not be interpreted by deconstructed components, because when an art object was reduced, it would lose the properties as the piece. For example, Dalí’s *Lobster Telephone* cannot be reduced to lobster and telephone under Harman’s definition in *OOO*. It makes sense when we define and refer to artwork as an entity. However, it may suggest the inharmony people experience when they apprehend an artwork, particularly when distracted by the accompanying text that commonly describes the art work’s material component.

Harman offered the problems of undermining as '**emergence**' while claiming *OOO* works both downwards and upwards. When several things were composed to a new thing, it may suggest some more qualities, instead of a simple addition from the things. An example provided by Harman is two boys and three girls (Harman, 2018, p.31). This may work in art objects as well. Taking the same example, Dalí implemented the lobster shape as the telephone receiver, and it suggested the qualities as one of the most representative artworks in the Dada movement. In contrast, these artwork properties are not contained in either lobster or telephone, which suggested the limitation of undermining. The deconstructing and re-constructing ways of object analysis may not be able to explain artworks in both forms of deduction.

2.1.2 Overmining object analysis

2.1.2.a *The etymology and language meaning of the thing*

From an etymological perspective, as Heidegger claimed in German, 'thing' or 'ding' means gathering at a specific site (together with humans and non-humans) (Heidegger, 1967). Also, Nordic and Saxon language origins showed a similar concept of site, gathering and social relations around things (Latour, 2005, pp.12–13). To be more responsible, as a native Mandarin Chinese speaker, the 'Dong Xi' (东西), which can be directly translated as east–west) is commonly used as the meaning of things in Chinese. Apart from the objective sense of the thing, the usage of 'Dong Xi' also maintains the concept of space and social interactions. In this case, 'Dong Xi' contains the similar feature of 'ding', like space and gathering, and potentially maintains some other meanings, such as abstract materials and commercial trading (value) (Gong, 2020)³. From this etymological point of view, the word 'thing' has suggested the concepts of spatial gathering, social relation and valuation.

3. Wei Gong, Chao Lin Conversations and Essays, Continuations, Volume 1, Questioning about buying things, translated by Chengwei Mao.

During the Ming Chongzhen Dynasty, once the empire asked the envoys, 'we use the word buy things as "east-west" why "south-north"?' No envoy knew the answer. Yanru Zhou, the assistant minister, said, 'there is drought in the south and flood in the north. If going to the merchants for drought and flood, no one will be happy for trading. Therefore, we use the word buying things as east and west rather than south and north'. The empire was happy about the answer. But from my (Gong's) perspective, the answer might be too farfetched. I (Gong) think the usage started from the eastern Han Dynasty. At that moment, commerce was quite developed in the east and west capital. So, people said 'buy east' or 'buy west', means buying things, either east or west. Then it was remained until now. After a long time, east-west continued to be used as the meaning of things.

2.1.2.b *Art, artworks and artists relation*

Understanding language usage can reveal a series of relationships between humans and things. But what is the relation specifically in the art context? According to Heidegger, a work of art shares the quality of thingness and beyond. "If we regard works in their pristine reality and do not deceive ourselves, the following becomes evident: works are as naturally present as things" (Heidegger, 2002, pp.2–3). It is usually viewed that an artwork arises from the activity of artists. Taking apart the equality between humans and non-humans, he claimed, "[...] the artist is the origin of the work. The work is the origin of the artist. Neither is without the other" (2002, p.1), which is like a chicken and egg paradox. Looking at the social relationship of an art object, artists and viewers made an art object more than an everyday thing. In modern times, artists can be regarded with significant respect and reputation, reasons for which originate from tribes on North American plains since the nineteenth century (Lévi-Strauss, 2016). With the tradition of connecting art with madness, mystery, oracle and supernatural power, artists were given a unique privileged position. Artworks, together with artists, were shared with the nobility. Because of their works, humans are different or even exist (Lévi-Strauss, 2016). Notably from the same essay, Lévi-Strauss described the conceptions about art from the

Tlingit myth that gave art objects a dominant position within this human–object relation. Similar to Barthes’ idea (1977), “the work finds its place beyond and on the near side of the artist’s intention; the artist loses control of it as soon as he has created it. It will develop in keeping with its own nature” (Lévi-Strauss, 2016, p.71). It is interesting to see these similar ideas already generated in different geographical origins, which suggests an ‘Object-Oriented’ consideration of the human–art relation.

2.1.2.c ‘Back to things themselves’ and the tangent discussion

In the last section, I briefly went through the social relationships between artworks and artists from anthropological lens. In this part, I will review the object from a material culture and object–quality philosophy approach.

We potentially use things to tell our stories when we look at ‘things in themselves’. We think of the world through objects and that objects, like human subjects, have agency (Gell, 1998). The object itself does not speak, but it is the human subjects that add a layer of common-agreed value and narration to it. An object cannot be the author of a piece, but human subjects can. A human can achieve their value through the bridge of a thing, which is the agency. Such discussion reminds me of a project brief during my MA study at the RCA, called *Make Something Speak* (Ikoniadou, 2019)⁴. The practical method was to experience and understand the process of objectifying the subjective value (concepts) through objectification in material forms (Miller, 1998).

Some realism and existentialism object–quality theories were contributed by many influential philosophers, which gave insights to the relation between human and object. Husserl’s phenomenology discovered the significance between objects and their qualities. His phenomenology encouraged and allowed thinkers to ‘go back to the things themselves’, back to phenomena, and stay away from German idealism (Husserl, 1983, p.108). Through my understanding, Husserl emphasised the consciousness, and his ‘thing itself’ is how subject experiences a thing from the external approaches and he rejected the necessity of looking for the validation of essential reality. Questions on the inwardness of the object can be led by our experience and intellectual attitude (Harman, 2018, p.78). Harman commented that Husserl’s phenomenology only goes back to the ‘bundle of qualities’ or the ‘appearances’ of the things, instead of ‘go back to the things themselves’ (Harman, 2018, pp.76–77). In contrast, Ortega separated the inwardness and outside of things: when we cannot approach or interact with the thing, only if it turns to the shadow of image of the things (Gasset and Silver, 1975, p.136). Unlike Husserl, he accepted the separation of external and internal reality, or the being of real object referred to by Harman. As Heidegger suggested, the thing is not just a collection of characteristics; it also cannot be the qualities appearing from the collection of properties (Heidegger, 2002, p.5). What Heidegger meant was, unlike Husserl and Ortega, people access the thing by the appearance, image or shadow, people can sense the object directly and abstractly. From my own perspective, it is more inspiring learning from Merleau-Ponty’s de-human-centred ideas, that we all perceive objects from a ‘narcissism vision’ (Merleau-Ponty, 1968, p.139) and we are presented with affordance

4. Eleni Ikoniadou, Assessment Brief, *Make Something Speak*, 2019

“For Nietzsche, ‘the artist allows certain forces which she designates at will, to move and speak through her?’ ‘To be a dramatist all one needs is the urge to transform oneself and speak out of strange bodies and souls’. As Stephen Connor tells us, ‘my voice is not something that I have or that I am but something that I do’. In art practice, for instance in the examples included in the ppt involving lip-synching and ventriloquising, the performer becomes a transmitter and receiver of other voices; capable of unearthing unknown, unheard, lost, repressed, dissident or otherwise marginalised voices, previously excluded from the historical record. Drawing inspiration from these and other examples from your own research, *Make Something Speak*”.

that the surrounding world offers us opportunities to interact with it (Merleau-Ponty, 2002). He believed that perception should be from dual perspectives, that as we perceived objects, it is an interaction result between the world and the subject, which is very much based on both the nature of objectives and the subject ourselves (Merleau-Ponty, 2002, p.269). Looking back to Harman's contributions to *OOO*, as a review and development, it broke down the concepts of things themselves, appearance, image, and reclassified them into the terminology system as real object/quality, sensual object/quality, which will be reviewed in detail in the next section.

Heidegger's ideas on our approach to things claimed that there are two ways people understand and interact with things: 'present-at-hand' and 'ready-to-hand' (Heidegger, 1967). These statuses represented two approaches to things, theoretical and practical. People often interact with things by using them rather than scientifically observing and researching them. Take an everyday object, for example, a person wearing a pair of glasses (the glasses are 'ready-to-hand' in this condition). The person with the glasses is a whole system and 'withdraws' from the person's attention. The person rarely notices them unless there is some abnormal condition with the glasses. Because the thing 'withdraws' from our attention when it is 'ready-to-hand', it is not in the usual situation when we interact with the thing. Therefore, it cannot access a critical understanding of the thing. Heidegger emphasised that compared with theoretical approaches ('present-at-hand'), things in practical strategies ('ready-to-hand') are what they really look like. Practice is the primary scene in the relation between human beings and the world (Heidegger, 2001). However, from an 'Object-Oriented' perspective, Graham Harman argued that neither from the theoretical nor the practical approaches can we understand the fundamental tool or the thing, as they are no more than particular ways of human-thing relation (Harman, 2018).

From the ancient Greek philosophers such as Socrates and Plato until now, we have been obsessed with ontological questions like 'what is the world?' According to Descartes' empirical scientific methodology, (Rorty, 1980) to prove something is real still directly influences us. Kant's 'thing-in-itself' epistemology tells us that our world is constructed by phenomena in which there is an infinite array of humans experience objects and events (Cole, 2015). I would contend that, starting from here, an uncrossable line was drawn between the world and ourselves. We question how our subjective scenery of the world may not be the real one that it is. The classification of noumena and phenomena (Kant, 1998) made the objective 'unthinkable'. In this case, I doubt that such ontological questions are like the ideal 'Eden', built in our minds, but no one can explain them. Therefore, from my point of view, the modernist philosophers developed their theories and attempted to answer the ontological questions. They unavoidably created the tangent lines very close to the ontological circle but were somehow never able to hit it. It may not be a direct way of answering the question, however, I refer to a metaphor by Teju Cole, "If you set enough tangents around a circle, you begin to re-create the shape of the circle itself" (2017, p.206).

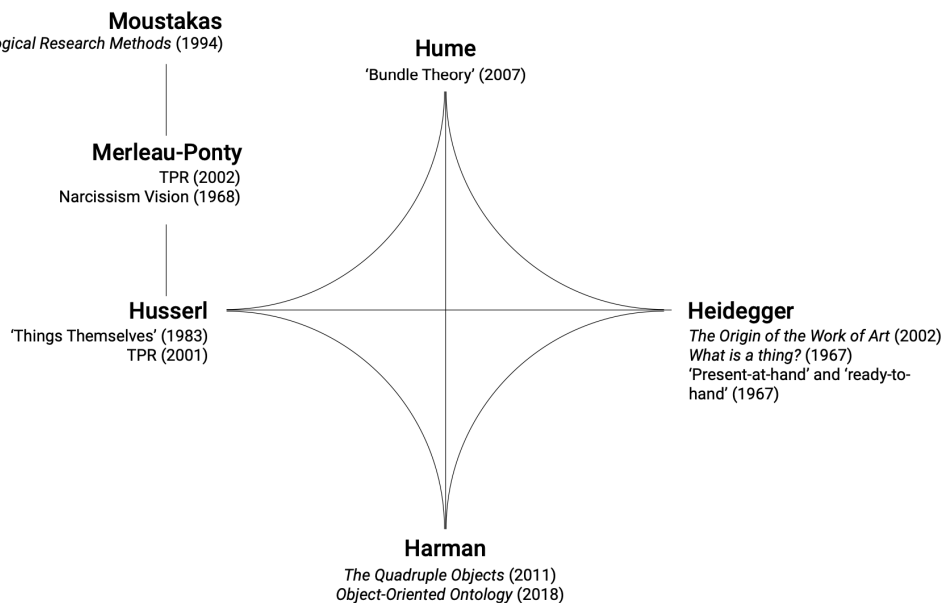


Figure 4, Theoretical Perspectives in this Project, (Author owned, 2022)

2.2 The OOO object analysis (Duoming object analysis)

In this section, I will review the core ideas of *Object-Oriented Ontology*: the 'Quadruple Object', the necessary links between them, and explain why it is relevant to this research.

2.2.1 'Object-Oriented Philosophy' (OOO), the 'Quadruple Object'

Harman reviewed the theories of Husserl (SO–SQ), Ortega, Heidegger (fourfold in 1919 and 1949) and others, and he developed and reclassified the 'Quadruple Object' in *Object-Oriented Ontology* as: **real object (RO)**, **sensual object (SO)**, **real quality (RQ)** and **sensual quality (SQ)**.

Harman claimed OOO is "a bluntly realist philosophy"; it accepted that the external world exists intendedly of human awareness (Harman, 2018, p.10), which differs from how Husserl's phenomenology merged the objects within and beyond human consciousness as the internal objects of consciousness.

The object exists in its own right and withdraws from all experience; therefore, Harman defined this external object (which was denied by Husserl) as the **real object** (Harman, 2011a, p.49). The diverse 'appearance' that people preserve from the real object ['adumbration', as Husserl called it (Harman, 2018, p.156)], was named by Harman as the **sensual quality**. The object underlay from the real object in our various subjective perceptions and experiences is defined as the **sensual object**: "Sensual objects only exist as the correlation of the one who experiences them" (Harman, 2018, p.165). And finally, the **real quality** is the necessary properties that maintain the object as itself (Harman, 2018, p.158), which can only be accessible intellectually rather than through sensuous intuition (Harman, 2011a, p.49). In other words, if we reduce any of the real qualities of an object, this specific phenomenon in peoples' minds will be destroyed. Taking a painting as an example to further explain these quadruple poles of

terminologies: a painting was presented in an exhibition space, it exists ‘in its own right’ and will not be influenced by how people interact with it. This painting itself is the real object. When a person looks at the painting, they get the appearances and properties in their perception, the qualities they found in their experience are the sensual qualities. In the subjective experience, the sensual qualities consisted of the painting; therefore, this experienced painting is the sensual object. When one aspect of the painting is reduced, for example a painted object, and we cannot regard it as the original piece, then this reduced property can be a real quality.

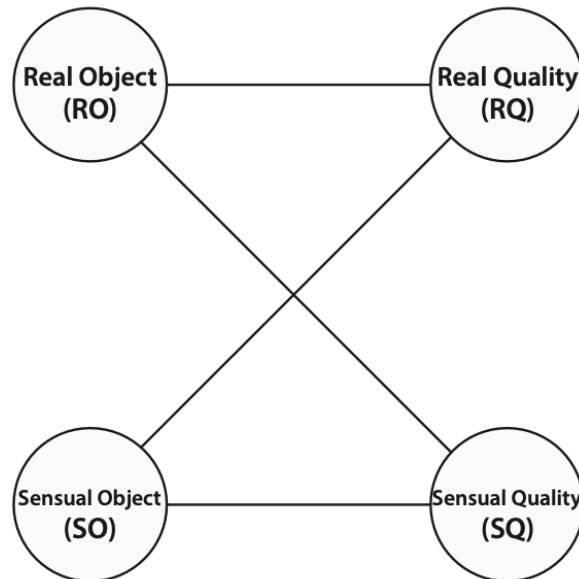


Figure 5, The ‘Quadruple Object’, (Harman, 2011a, p.50)

2.2.2 The relevant relations among the ‘Quadruple Object’: the ten possible links

Harman (2011a) named the new fourfold as: real object (RO), sensual object (SO), real quality (RQ) and sensual quality (SQ), which is less poetic than Heidegger’s ‘Earth, Sky, Gods and Mortals’. After individually explaining their meaning, the links in between are left to be discussed.

Firstly, are the links between these quadruple poles, which Harman called the ‘four tensions’. By reviewing the ideas from Husserl’s adumbrations and eidetic intuition, Heidegger’s tool-analysis and Leibniz’s monads (Harman, 2011a, p.99), he named the connections between ‘Quadruple Object’ as ‘time’, ‘space’, ‘essence’ and ‘eidos’ (Harman, 2011a, p.99). In his articulation, developed from Husserl’s phenomenology, sensual object and sensual quality (SO–SQ) is connected by the concept of ‘time’, which indicated the possibility for stability and changes. An enduring sensual object can shift qualities over time as we perceive. Moreover, what makes this dynamic quality possible is the ‘time’ through our experience (Harman, 2018, p.159). The next pair, RO–SQ (concealed real object and the sensual qualities), was connected through ‘space’. This differs from Leibniz and Clarke, who believed space as the container or a matter of relation between things. Harman claimed his ‘space’ is the site for relation and non-relation between things (Harman, 2011a, p.100). He emphasised the contribution of

Heidegger's tool-analysis on space rather than time. This 'space' has an important role in the RO–SQ tension because both 'withdraw' and 'access' can happen in this dimension (Harman, 2018, p.159 and 239; Harman, 2011a, p.100; Skolnik, 2016). The third and fourth relation is between sensual object and real quality (SO–RQ); real object and real quality (RO–RQ). This idea was referred by Harman from Plato's and Husserl's reverse the common theories about quality and object relation, that eidetic qualities were hiddenly placed in depth while the perceived object in our mind unifies the real qualities in the surface (Harman, 2011a, p.101). Harman used the term, '**eidos**' and '**essence**', from which Husserl defines the tension between the intellectually-approach quality and the perceived object.

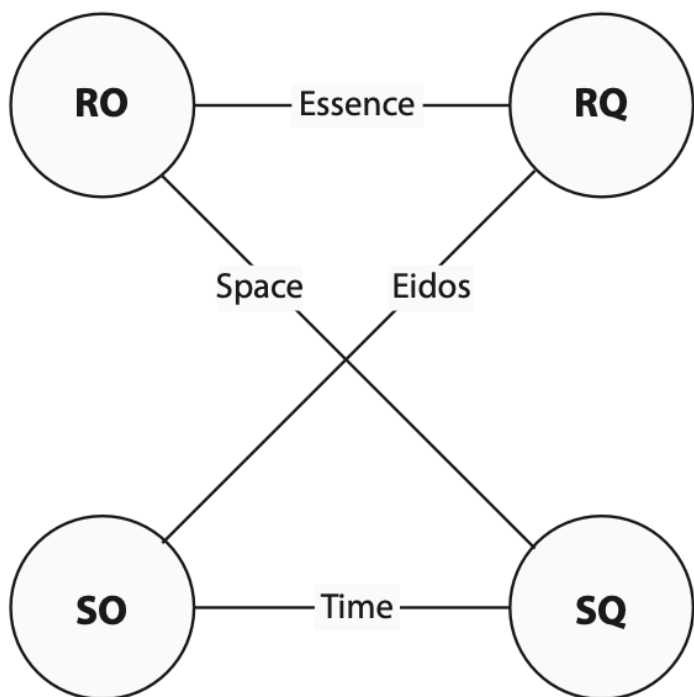


Figure 6, The Four Tensions in Quadruple Object, (Harman, 2011a, p.114)

The remaining relations to be discussed in this study are between two different real objects, between two sensual objects, and between sensual qualities. Refers to Harman that two real objects make contact "not through direct impact, but only by way of the fictional images they present to each other" (Harman, 2018, p.165). Harman also claimed that the *OOO* flat ontology model was imported by Wiscombe (2014, p.43) as "a flat ontology confronts the possibility of radically de-stratifying architecture without resorting to smoothing on the one hand or disjunction on the other" (Harman, 2018, p.255). These relations, as Harman named are the 'radiations' (between qualities and qualities) and 'junctions' (between objects and objects). I will not cover all the six relations here but will only introduce the relevant three: "the relation between two real objects is the **withdrawal** of the corresponding real objects behind our experience" (number 9); the relation between two sensual objects only happens as **contiguity** in our experience (number 10); and the connection between two sensual qualities is the **emanation** through the same object of experience (number 7) (Wolfendale, 2014, p.21; Harman, 2011b, pp.212–213).

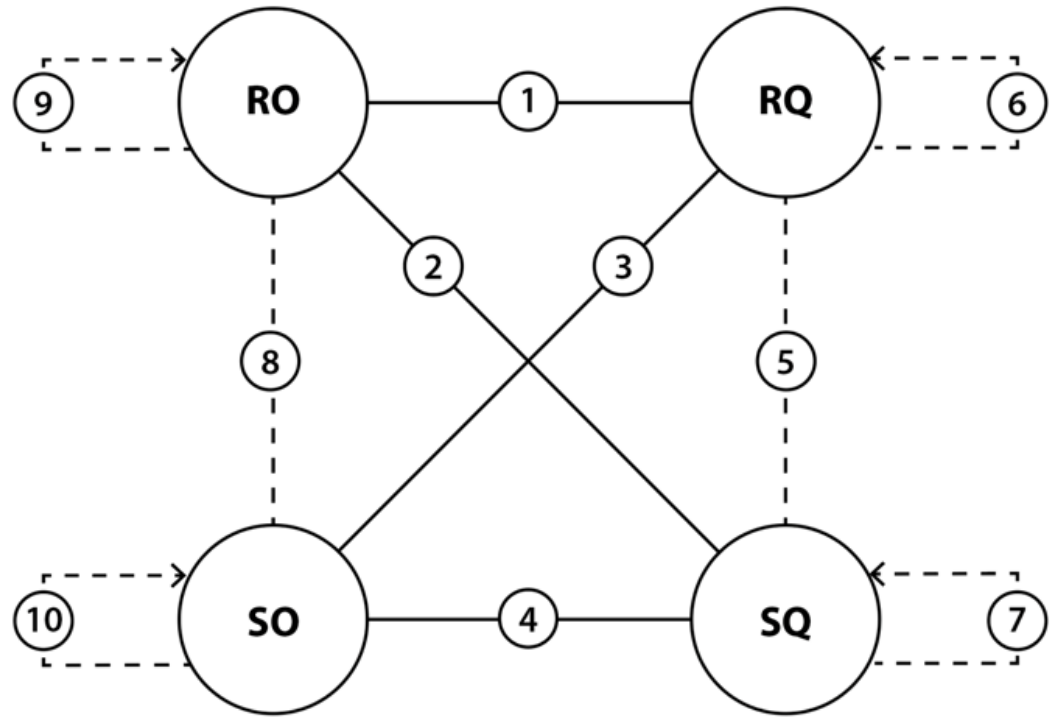


Figure 7, Ten Possible Links, (Harman, 2011a, p.78)

2.2.3 Object-Oriented Ontology in this project

Harman's *OOO* offered this object analysis theory from the 'Quadruple Object' and their links to unify objects and their qualities under one system and re-understand the human-object relation, which could be used in the art object analysis, especially the 'flatness' that equalised objects and human beings in a same level. It is a realism theory which admits the existence of the objectives, which is similar to Kant's noumena, to admit and think the unthinkable. *OOO* established a 'home' for the subjectively perceived things. *OOO* differ from the existentialism⁵ ideas which reject the existence of external world, but admits them and values the subjective as well (Harman, 2018, p.10). *OOO* gives an option to instead try to reach the real object; it offers a space for approaching the sensual object that explained the issues with a focus on subjective experiences. In analogy, Merleau-Ponty taught us to discover with awareness of limitations and refine the questions: "not to reimagine our existing perceptions of the world as the direct and lucid whole of transcendental philosophy, but to stop seeking that complete transparency in any form: to recognise that the fantasy of total perception – the view from nowhere or the view from everywhere – is an incoherent one" (May-Hobbs, 2022). These inspirations will be strongly linked with the theoretical perspectives and methodologies in Chapter 3.

5. Existentialism ideas says there is no objective world exist beyond perception such as Husserl and Yangming Wang, but similarly they met the barrier to approach to the real/ actual experience. Where I think it's the gap in different position. Either we say there's a gap between ourselves and the 'real' world, or methodological wise, there's a gap between our experience and the measurable descriptions, or maybe both, so these gaps caused the incoherent or unthinkable world.

2.3 A brief review of the previous study: 'The Layering Model'

'The Layering Model' was developed during my MA study at RCA, which was my first theoretical attempt at art object analysis under metaphysical perspectives. There are three main concepts in 'the Layering Model': "1. Art object, same as any other objects, exists by itself and will not be influenced by any other subjective existence; 2. The art object is constructed by a certain number of layers of material which dynamically connected to uncertain layers of information (Fig.8); 3. Art object exists as a communication bridge between art creators and art viewers. However, in this communication process, it is not in control by either art creators or art viewers (Fig.9)" (Mao, 2021, p.4).

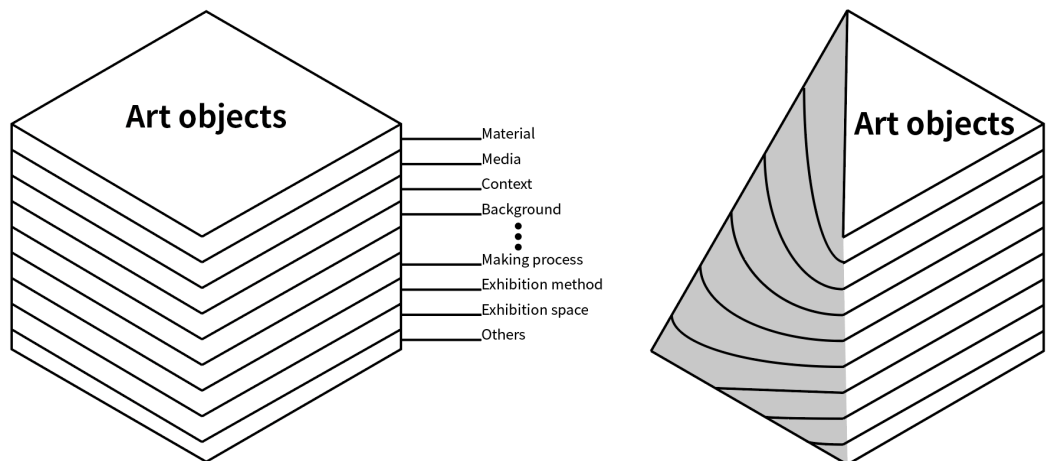


Figure 8, The Structure of Abstract Material and Information (left), the Individual Understanding of Art Object (right), (Mao, 2021)

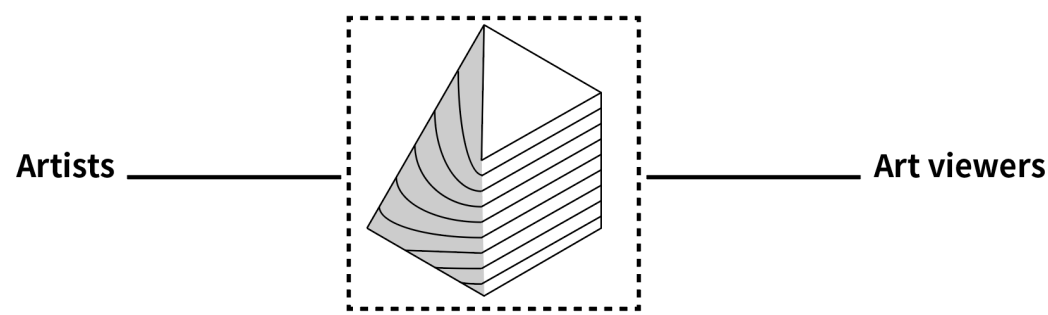


Figure 9, The Artist–Art Object–Audience Relation in 'the Layering Model', (Mao, 2021)

I was aware of some limitations and shortcomings of this model as the development in the current research project. Firstly, on the art object–human relation: a real art object can be more than a 'thing' (for example, the ideas, social context, and other related curatorial considerations), which suggests the critical perspective of the beyond-thingness of an art object. 'The Layering Model' over-simplified the material analysis, by equalising and regarding all those 'beyond-thingness' same as object components. Secondly, there was a strong belief on Hume's 'Bundle Theory' emphasised the qualities around objects, but rejected the thingness and reality of art objects. And finally, the model acknowledged the object–human relation but didn't further answer the questions of how people communicate through artworks as an information sender and receiver. 'The Layering Model' fell into Nihilism. Since I didn't try to discuss how this happened, but just gave a restriction on exploring this relation. Despite the critical limitations of this

model, I would suggest some points that could potentially benefit this project, such as the art creator–art object–art viewer relation and the two perspectives of object analysis in art communication. These new reflections on the previous theoretical studies strongly influenced the theoretical considerations in this project.

2.4 Summary

At the beginning of this chapter, I briefly mentioned some research projects and their positions and perspectives on understanding the digitalised art exhibition context during and after the pandemic, which strongly reflected on problem-solving and discovering practice potentials. Additionally, discussions around virtual heritage and virtual museums (Deshpande et al., 2007) were popular before the pandemic. However, there might be qualitative and positional differences between art and museum objects. As introduced in this chapter, I presume that speculative realism offered insights into object analysis, which could benefit art object discussions in art digitalisation. Through the scope of context, I've noticed the research gap: firstly, there was limited research on digitally transformed artworks in themselves, specifically during and after the pandemic context. Secondly, there was a lack of in-depth DTA material analysis from a speculative realism approach. While speculative realism perspectives were widely used in qualitative art material analysis (Rubio and Silva, 2013; Malik, 2015; Kerr, 2016). Such gaps made me realise it might be feasible to implement, experiment and validate the speculative realism perspective (more precisely, 'Object-Oriented Philosophy' in this project) on digitally transformed artworks. Moreover, I noticed in current research in contemporary art communities, we emphasis on art making and the impact on artworks, instead of valuing art viewers' experience as communication receivers. Therefore, this research project will be situated in relation to these research gaps and questions.

As covered, *OOO* suggested the combination of undermining and overmining, which mainly focused on things and things-related aspects. However, as indicated in 'the Layering Model' and other research on the digitalised exhibition context during and after the pandemic, there are other essential features beyond art objects themselves in contemporary art analysis, such as art community (Baumann and Burke, 2021), medium study (Bordini and Santos, 2021) etc. Therefore, I would suggest two main perspectives on uncovering the materiality of DTA: a thing and thing-related, and the beyond-thingness aspects. This research project will proceed under these two perspectives at different stages.

Chapter 3.

METHODOLOGY

In this chapter, I will introduce the research structure and explain the methods in narrative order. This research project will be divided into four sections: 1. theoretical considerations and pilot studies; 2. data collection and ethical considerations; 3. data analysis and framework development and 4. re-evaluation of online exhibition examples under the experiential framework, and overall reflection.

3.1 Theoretical consideration, research design and pilot study

3.1.1 Phenomenological positions in research design

Ideally, this project aims to discover an ontological answer to the research questions. However, as discussed in the previous chapter (2.1.2.c), it is challenging to approach the objective 'things themselves' directly, and we cannot be satisfied by the answers as the primary constructed material (what it is made of) or the quality relation from a human perspective (how to 'use' it). Phenomenological ideas, such as Husserl's 'things themselves' (Husserl, 2001) and Heidegger's double-hermeneutic (Hoy, 1993) (used in 'IPA'), offered insights to help us understand the objectives through human experiences. Through the study of subjective experience, the project will try to draw some tangents towards the ontological question and hopefully try to reach 'the art objects themselves'. At this stage, a series of raw subjective experience data is essential for further analysis. Therefore, a specific method for data collection is needed to generate a more comprehensive idea of art object understanding.

Hermeneutic phenomenology emphasises the researchers' opinion to interpret the descriptions and co-construct meaning (Patton, 2015). In comparison, Merleau-Ponty developed on Husserl's early transcendental phenomenology, which focuses on the pathological discussion of illusions and hallucinations. Merleau-Ponty's phenomenology suggested a method to understand the worldly existence of objects of one's experience. Firstly, phenomenologists need to collect and describe the perceptual and phenomenal experience (apart from the visual field). By taking the initial stance of describing and rejecting the second stance on experience, researchers can approach the perceptual experience in a more precise way. It is essential to notice that this method is to understand the subjective experience, which is a possible way to reflect on the natural existence of the world (Romdenh-Romluc, 2021). Secondly, under the method of 'Transcendental-Phenomenological Reduction', Merleau-Ponty's phenomenology involves the attempt to describe the objects of consciousness in the manner in which they are presented to consciousness. It attempts to reveal the world as it is experienced directly by a subject instead of how we might theoretically assume it to be (Tilley, 2009).

This process included a subtle balance between the suspension of some common-sense understanding of the world (as he called the 'Objective Thought') and the data collection hypothesis. Thirdly, we should try to describe the experiences as accurately as possible and analyse the phenomena using Gestalt's ideas (Romdenh-Romluc, 2021). Merleau-Ponty's transcendental phenomenology removes researchers' subject bias and hypothesis from the research process to approach a more accurate raw experience description (Romdenh-Romluc, 2016).

3.1.2 Acknowledgment and suspension of subjective perspective/Epoche

Noticeably, the perceiving perspective of the researcher has a significant influence through the research project. Therefore, calming the researcher's theoretical perspectives and view of perception (as an atheist viewer, researcher and art worker) is essential to start the research project (Moustakas, 1994). The researcher partially views things and discusses art objects' materiality from 'Object-Oriented' and other speculative realism perspectives. Graham Harman argued a series of ideas of things and object analysis from the classification of the previous thoughts as undermining, overmining and duoming (Harman, 2018) and the acceptance of the being of objectives beyond people's perception. The researcher also speculates on speculative realism (what might be the beyond-thingness of an art object), and questions on what could be a better way to approach art objects by also valuing the sense data and experiences from people.

Therefore, through the research process, the researcher will review the previous practice and knowledge on advertising, communication design and other art practice, aware of the subjective way of exhibition visiting and interpreting over the past ten years. The researcher tried to remove and suspend them from how to select and design the research project, which include the data collection method, setting selection and the interaction with potential participants. By the self-position reflection, the researcher hopes to prepare for a natural and open-minded position as much as possible for the fieldwork process.

3.1.3 Pilot data collection

With the acknowledgement of the researcher's subjective position, and following the transcendental phenomenology research methodology and other theoretical and methodological considerations, the pilot study intended to develop a data collection method and validate the ideal data analysis.

The pilot study was based on Daniel Silver's exhibition Looking (2022). This exhibition displayed a mixture format of artworks, such as sculpture, painting and video works. The show was curated by professional curators from the gallery. Daniel Silver's practices presented the abstract shapes of the human body with materials such as marble, bronze, concrete, wood, and clay. His works were presented in different scales, with vivid colours and other unique sculptural techniques. Through the exhibition, there was a development of the artist's personal history. This choice of setting for the pilot study is a

first attempt to experiment with subjective perceiving and interpreting experience on the complex composition of artworks materials in a contemporary art context.

The researcher maintained a respectful and deep listening position in the pilot study. During the activity, one participant was involved in two ways in an experiment of data collection. The participant was interested in visual art and has an architectural background. The pilot data collection started with an audio recording of the participant's first-person description while they were experiencing the exhibition. With a verbal consent, the participant described and explained their experience, ideas, thoughts and behaviours to an audio recorder on the ground floor of the main gallery at Fruitmarket. Later, they suggested their feeling of uncomfortableness while talking about art with audio recording in a gallery space. Therefore, for the rest of the exhibition (first floor main gallery and the Warehouse Showroom), the participant agreed to maintain a conversation with the researcher, and the researcher were allowed to take notes during the conversation. Such reflections suggested the refinement of fieldwork data collection methods, which will be detailly introduced in 3.2.1. During the activity, the participant expressed that they may require a certain number of instructions that help them talking. However, the researcher's initial consideration was that too many instructions provided may potentially influence participants' experience from their subjective way of perceiving. In this scenario, it is essential to bring forward balanced participation guidelines for the fieldwork, which will be discussed in Step 3 of 3.2.1. The reflection of this pilot study helped improving r the fieldwork design and preparing for understanding the real experience. Further observations of pilot data collection and pilot data analysis will be presented in 4.1.1.

3.2 Fieldwork data collection arrangement and ethical considerations in the physical exhibition

After the first section, the researcher understood their theoretical positions and subjective hypothesis, and the project will undertake phenomenological research methodology. Therefore, the second section will focus on collecting a more comprehensive range of subjective phenomenon descriptions (Fig.10).

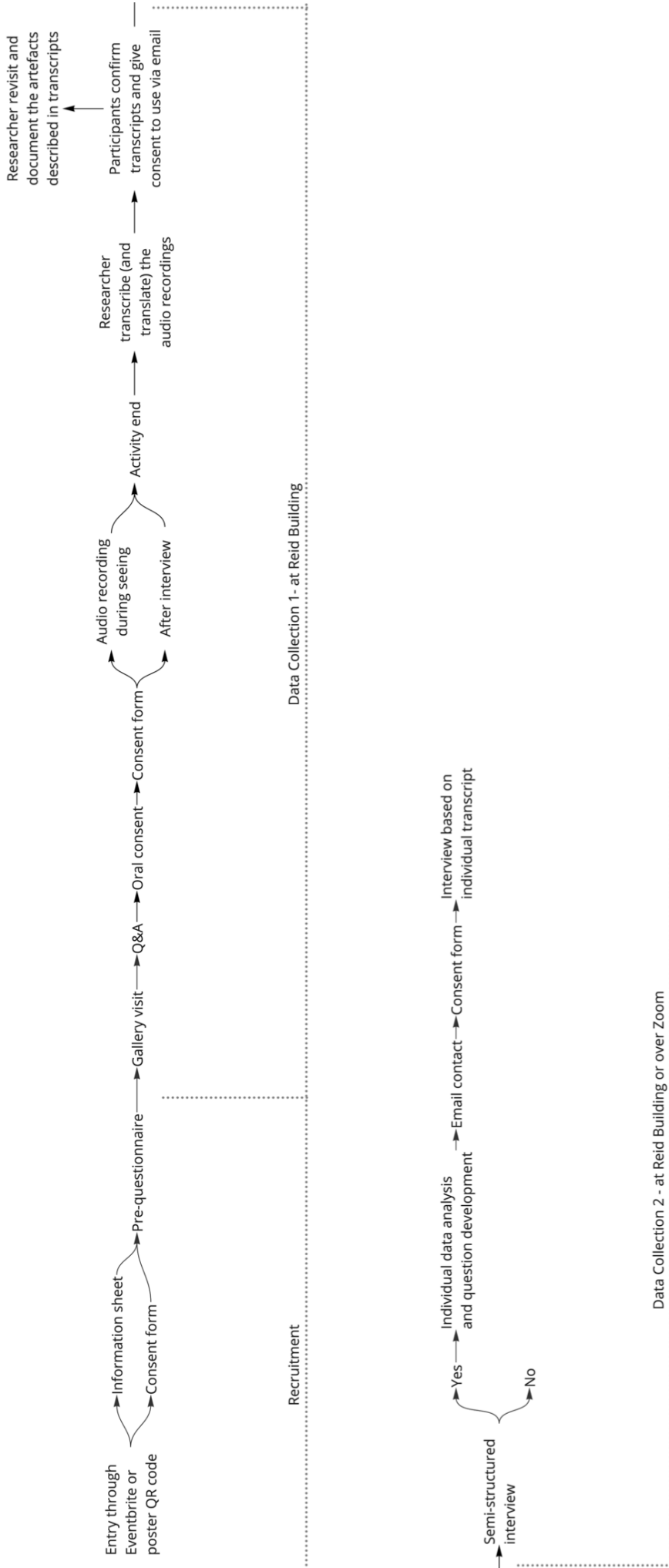


Figure 10, Fieldwork Structure, (Author owned, 2022)

3.2.1 Data collection arrangement

Inspired by Merleau-Ponty, Husserl and Moustakas' transcendental phenomenology, this fieldwork will aim to collect the first-person verbal descriptions from the research participant themselves. Under the theoretical consideration of transcendental phenomenology and inspired by the 'pointing and calling' (the unifying of human sensations) in East Asian transportation and other industries, an activity method was developed for data collection in this project. One important thing learnt from transcendental phenomenology is to respect and value everyone's perspectives, thoughts and ideas from people, so this attitude or value will be carefully considered in every step of the activity arrangement. The data collection will be divided into five steps:

Step 1, 'Epoche', 'Phenomenological reduction'.

To start the data collection, the researcher needs to remove the subjective bias and hypothesis from the data collection, which aims to set up a non-judgemental and respectful collection environment (Moustakas, 1994).

Step 2, Pre-participating questionnaire.

In this step, the researcher will provide all the activity details in the information sheet and ask for activity preferences. The researcher aims to create a safe, caring and transparent environment for the participants in this project. The questionnaire is designed under the research ethics and GDPR considerations, which will be introduced in 3.2.5 and Appendix A1. This questionnaire contains questions such as:

Q2: Are you from one of these vulnerable groups?

[Children under 16; Adults unable to give consent under the Adults with Incapacity Act (2000) Scotland; Prisoners (incl those convicted under UK law, detainees or asylum seekers); Individuals in dual relationships (e.g. students, staff, family members of GSA staff etc.)]

Q5: What method do you prefer for the data collection? (If you prefer other methods, please put them in the given space. The researcher will be happy to make adjustments.)

Q7: Do you have any symptoms of Coronavirus?

and Q8: Do you have any other enquires for participatory adjustment? (Such as accessibility, pandemic consideration etc. You are welcome to discuss any ideas and concerns with the researcher to improve your participatory experience.)

Step 3, Semi-structured interview.

The researcher will prepare for the adjustments based on the individual response to the questionnaire in step 2. Two collecting methods will be provided for participants to choose from: a) an audio recording of their first-person descriptions of their experience, sensations and thoughts during the process of their exhibition visit; Or b) an audio-recorded semi-structured interview which requires the same content after they finish the exhibition.

Due to the language usage of the researcher and intercultural considerations based on participants' feedback (the limitation of explaining themselves by using English

as second language), the fieldwork activity will also offer an option for participating in Mandarin Chinese. The collection will record participants' verbal expressions of their notices, sensations and thoughts throughout the whole setting experience. The participant will be encouraged to talk about their experience, including their notion of drifting, unexpected ideas and meaning-making based on their personal experience. A recommended printed instruction will be provided for participants which refer to the ideal data in this project, such as:

1. Describe your sensations: Try to describe what you see, hear, smell, feel and any other feelings (such as the material, colour, shape and other sensational elements) as detailed as possible.
2. Describe the meanings: Try to capture and describe your experience, ideas, motivations and actions throughout the visit.
3. Understand the interpretation: Try to think and talk about how you get your ideas from the works.
- And 4. Capture the movement: Try to capture/recall your body movement in the floor plan graph.

Step 4, After-activity survey.

After the main activity, the participants will be encouraged to fill in an anonymous after-activity survey. This survey will contain comments on the participating experience, activity arrangement and any further feedback to improve the activity for after participants. Some of the question examples are:

Q4: How do you rate the following items (the activity arrangement, clarity of information, verbal communication, the activity experience, overall experience) from 1–10 related to today's activity?

And Q6: Do you have any feedback and comments for the researcher?

The survey will also ask for participants' responses related to the research questions, such as:

Q1: Based on your visit today, how do you rate the accessibility of the artworks' concept? (i.e. visual element capturing, sense-making etc.)

Q2: Comparing to an online exhibition you viewed before, what do you think are the important features for in-person experience of artworks?

Step 5, Audio transcribing, translating and confirmation.

The audio files will be transcribed by the researcher. The audio recordings in Mandarin Chinese will be transcribed and translated by the researcher. The transcripts will be edited without indefinable information. And the researcher will send the transcripts to the participants to confirm the content is accurate and remove the context if they do not wish to be used in this study.

Following these five steps, the activity will carefully, non-judgementally collect subjective experience data for further analysis to produce arguments and a physical exhibition experiencing framework. (A full version of fieldwork procedure can also refer to Appendix A.5).

3.2.2 Ideal data

The ideal data collected from this fieldwork will contain detailed descriptions of the sensational elements from the objective works, demonstration of their interpretation of the works, explanations about how they make meanings through/from the art objects, and the body movement trace in the gallery space. It will also be beneficial to look at any other unexpected verbal expressions in the audio recording. Unexpected expressions may include any description of distractions and sense data that people could notice and perceive apart from the displayed objects or direct curatorial decisions. They may also include the use of interjections and conversational language in verbal descriptions. This project will study the raw experience of physical exhibitions, question the existing knowledge of object analysis and combine them with the pandemic and post-pandemic context. It intends to discover an idea of human meaning-making through physical art objects and build an alternative physical exhibition materiality framework for reflection on online exhibition understanding.

3.2.3 Fieldwork setting selection criteria

Referring to the reflection of the pilot study, the data collecting setting should be a professional-curated single-artist physical exhibition which should include a multi-format of artworks. It is also necessary that the displayed pieces contain a composition of materials, visual signifiers, abstract shapes, and story/logical connections among the works. Such criteria requires several theoretical considerations to collect better qualitative data for later analysis, such as, to separate artworks from everyday objects; to complexify visual and meaning-making experience with formats, shapes, signifiers, and materials; to validate sensual objects and uncover how participants could build up understandings through the whole exhibition; and to observe the influence among different artworks.

Due to the time and other practical arrangements, the activity is based on Mhairi Killin's exhibition 'On Sonorous Seas' (2022)⁶ at the GSA Reid Gallery. The show combines a series of physical artworks (sculptures, prints, sketches, poetry, etc.) and digital video works (which involved 3D capturing, digital composing, and other digital techniques). The sculptures created a tangible and intangible interpretation space by physical appearance and material considerations (such as silver casting, organic material, etc.). The artefacts were also conducted with storytelling about whales and dolphins.

Apart from the exhibition content, the gallery space was also considered. The visitors of Reid galleries have a mixture of backgrounds within and beyond the education context (the relevant stakeholders will be demonstrated in the next section). Also, the exhibition institution has the experience of going through the pandemic and awareness of the challenges of physical restrictions. Therefore, Killin's exhibition at Reid Gallery meets all the criteria for setting selection.

6. In collaboration with Fergus Hall, Tom deMajo, Miek Zwamborn and Susie Leiper.

3.2.4 Ideal stakeholders mapping and recruitment

Before the data collection, it is necessary to understand the participants and the stakeholder of the art environment (who are involved and occupy positions in this conversation). Based on the classic communication model (Berlo, 1960, pp.30–38) and Heidegger's (2001) object analysis method, this model was developed and mapped out different roles (artists, curators, viewers and researchers) within the art communication process (also closely interacting with art objects). Under such consideration, the art object was positioned in the middle and worked as a core link among artists, viewers, researchers and curators. The model allowed the researcher to set themselves and the participants from various perspectives, to open up the conversation to a reasonable scale and focus on representative subjective groups to be involved in this project.

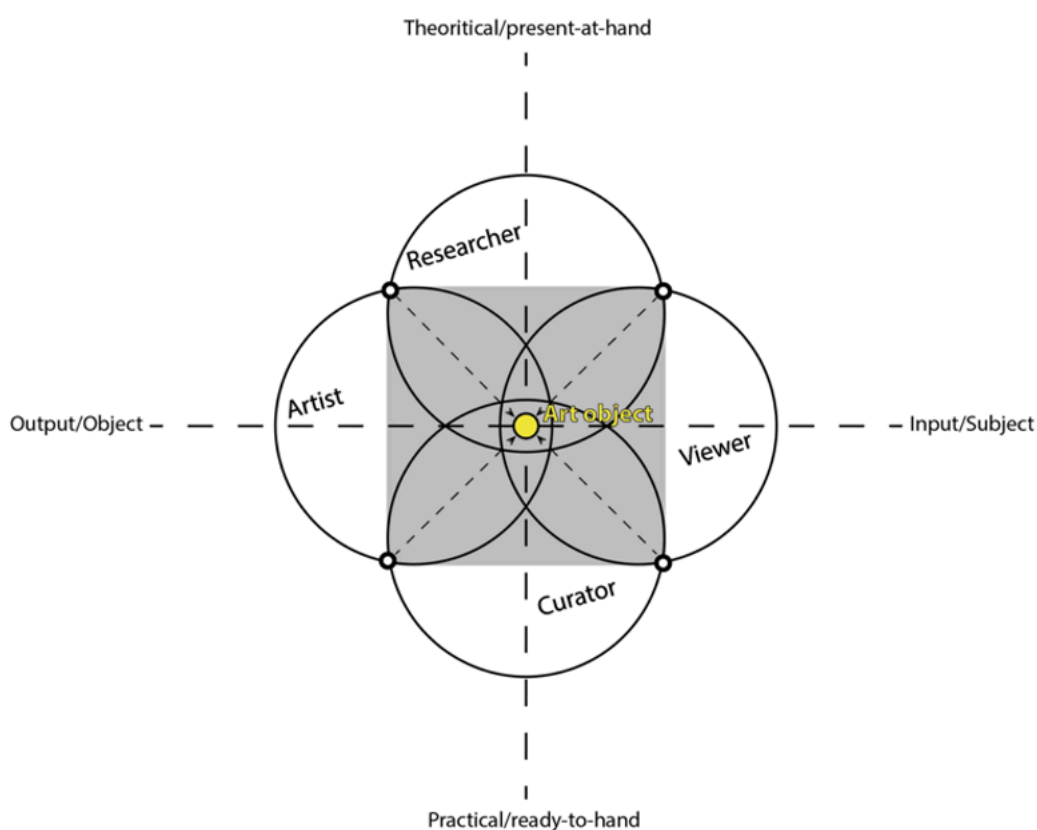


Figure 11, Stakeholder Mapping, (Author owned, 2022)

Referring to the stakeholder mapping, the recruitment will happen within the GSA community, and also open to the public at the same time. Interested participants will enter through an Eventbrite page or a physical poster QR code scan (Appendix A.7), which contains the Information Sheet for Participants (Appendix A.1), a Pre-participating questionnaire (Appendix A.2) and consent forms (Appendix A.4). The questionnaire anonymously gathers the information for filtering the vulnerable groups and Covid restrictions, also for adjusting the sampling method preference and any accessibility enquiries. After the questionnaire, the selected participants will choose a time slot to attend the research activities. The researcher's contact details will be provided for answering any questions related to the project. Background information of the participants group will be demonstrated at the beginning of data analysis chapter, 4.1.2.

3.2.5 Ethical consideration

There are two aspects of research ethics consideration in this project: GDPR and Covid restrictions. This research project will need to collect participants' email addresses and audio recordings during the activity; therefore, personal data protection is essential. Also, under the social context of the pandemic, Covid restrictions must still be taken into consideration. In this research activity, the researcher will follow the latest guidelines from the Scottish government and the Glasgow School of Art. A full version of the data protection and pandemic mitigations are available in an information sheet for participants (Appendix A.1).

3.3 Data analysis and framework development from a physical exhibition example

Based on the primary data collection on a physical exhibition in the previous section, this section will conduct the data analysis methods to understand the subjective experience and develop an experiential framework for physical exhibition experience. This section will be structured into two parts: the data analysis method and framework development.

7. A more in detailed data analysis method used and how the experiential themes (4.2) were carried out will be presented in Appendix D.2, four steps in data analysis..

3.3.1 'Interpretative Phenomenological Analysis' combine with spatial analysis⁷

First, it is worth clarifying that Merleau-Ponty's 'Transcendental Phenomenology' rejected any further explanation or analysis from the subjective phenomenon (Romdenh-Romluc, 2016), and data needs to be reviewed by Gestalt methods. However, this project aims not only to uncover semiotics insights, but also to develop more comprehensive implementable concepts of object analysis from phenomenological experience in various exhibition settings. Therefore, this project will undertake the 'Interpretative Phenomenological Analysis' ('IPA') to understand the individual experience related to the physical exhibition.

'Interpretative Phenomenological Analysis' is a qualitative research methodology based on Husserl's 'things themselves' (2001) and Heidegger's 'Hermeneutic Phenomenology' (2001), which allows researchers to approach things in experience and explain how people make sense of things (Alase, 2017). 'IPA' needs to proceed with the acknowledgement that we are not able to get access to the pure experience (hot and cold cognition), but try to approach it as close as we can (Smith and Nizza, 2022).

The data collection method was detached from 'IPA', which implements transcendental phenomenological research (demonstrated in the previous sections). While data analysis will follow the 'IPA' double-Hermeneutic method to understand how participants experience and interpret artworks in the physical exhibition setting. Raw data were collected as audio recordings, and the researcher will transcribe (/and translate) them into text transcripts. The researcher will implement idiographic analysis and equalise the value among every data. Then the transcripts will undertake verbatim analysis and generate the experiential statement and themes in each sample. This will be combined

with the 'Object-Oriented' theoretical perspectives by the note-taking method on the transcripts. Then the researcher will go through a cross-case analysis of the data with spatial data in the fieldwork setting. Each transcript will be organised in linear order by the participants' trace in the space and divided into sections by the time they notice the following artwork. Through this method, the project will entangle the experience on specific artwork, exhibition room and site. And finally, the researcher will classify the experiential themes under the object analysis perspectives suggested in the literature review chapter, build arguments, and discuss these discoveries in writing.

3.3.2 Framework development

With the discussions on experiential themes and arguments from data analysis, the project will then attempt to develop an experiential framework for the physical exhibition experience. This framework will be structured by categories summarised and highlighted from participants' experience in the fieldwork setting. This framework will also be produced with object analysis considerations, which were suggested as the thing and thing-related perspective and the beyond-thingness perspective from the literature review chapter. The framework could alternatively offer the aspects that are essential to real experience to artwork and exhibition interpretation, which will then be used to evaluate and analyse online exhibition examples in the next phase.

3.4 Re-evaluation of online exhibition examples under the experiential framework, and overall reflection

3.4.1 Online material selection criteria

One online exhibition will be selected based on each display format. Similar to the physical exhibition selection criteria in the fieldwork, the online exhibition should be a professional-curated single-artist exhibition that could be online and publicly accessed through two-dimensional screen-based personal devices. The material ideally should cover various mediums of artwork. The artwork contains a composition of materials, visual signifiers, and abstract shapes. There also should be a story/logical connection among the pieces.

Firstly, Léon Spilliaert's virtual exhibition at the Royal Academy of Arts was selected. The physical version of this show took place in August 2020, and the virtual tour video is still accessible (February 2023). Secondly, Ai Weiwei's online exhibition presented various formats of his works. This online exhibition can be accessed through a "photorealistic stereoscopic 3D" (Royal Academy of Arts, 2020) website. And finally, Lux curated a smaller-scale webpage-based online exhibition from Michael Curran's moving image work, 'Love in a Cold Climate', which contains text, video, interview recording and illustration.

3.4.2 Using visual methods in re-evaluating online materials

The phenomenological data of online exhibitions experience will be collected from the researcher only. This is mainly due to two reasons: firstly, under ethical considerations, during the research process of this project, the researcher is not permitted to share the fieldwork-related data to anyone apart from the GSA supervision team. And secondly, the experience and analysis of online materials will need to proceed with the experiential framework and 'Object-Oriented' lenses. The researcher is equipped with the project information and understanding of *OOO*. Therefore, the phenomenological data will be collected from the researcher's experience with the selected online exhibitions.

Ethnography is a qualitative research methodology widely used by anthropologists and sociologists. Visual ethnography offers approaches to understand the visual cultural context with the evidence of imagery materials. Similar to phenomenology, it emphasises the essential position of subjectivity, experience, knowledge and representation (Pink, 2007, pp.1–3). This could be highly beneficial in studying photography, video, hypermedia, and other cultural objects in the digital age (Dicks, 2006). Visual materials used in visual methods were constructed in three forms: visual things as data, visual tools to gather data, and visual ways to record field notes and/or memo (van den Scott, 2018, p.720). Therefore, in evaluating online materials, the researcher will cover the three roles of visual materials: starting from content analysis on visual materials (introduce and describe online examples), then engaging narrative through visual methods (notetaking and mapping in framework), and finally articulating the visual methods in writing (discussions and reflections referring to the mapping) (van den Scott, 2018, p.723).

By implementing the visual methods, the collection of online material experience will follow a similar structure to the fieldwork arrangement for participants, which will proceed by the researcher. The researcher will experience and interact with the online materials. Additionally, the researcher will keep the experiential framework developed in mind and use the framework to re-evaluate these online materials. Therefore, the researcher will proceed with notetaking about subjective responses, reactions, interpretations, and experiences, then map them out in the framework. To identify the differences between experienced, virtual, and presented space, the researcher will go through the online material on the first floor of the GU library. This area, to some extent, is similar to a gallery, where it is quiet with artificial lighting, and there might be some behaviour principles suggested by the site (such as being quiet and restricting some behaviours that might be judged by other people). Before the experience, the researcher will need to prepare in a subtle mindset, which could help suspend personal judgements and let spontaneous reactions and discoveries emerge. After experiencing and gathering phenomenological data from visual methods, the researcher will discuss these online material statements combined with data analysis results in the fieldwork, and attempt to articulate the possible discoveries around object analysis on DTA.

Chapter 4.

DISCUSSION I: PILOT STUDY, FIELDWORK DATA ANALYSIS, FRAMING EXPERIENCE IN THE PHYSICAL EXHIBITION SETTING

4.1 Pilot study discoveries and fieldwork participants

4.1.1 Observations in the pilot study

By obtained the pilot data by the methods demonstrated in 3.1.3, I observed the following discoveries based on experience of example physical exhibition, Looking at Fruitmarket in Edinburgh⁸.

8. Due to the limitation of ethical preparation at the early stage of this project, the pilot study participant only went through verbal consent, rather than completed the signed consent form. Therefore, detailed data of their responses will not be included in this project.

Firstly, and most importantly, I captured a physical artworks' experiencing pattern in the transcripts from both collection methods. The participant started an artwork by noticing the physical object, then they described relevant sensational qualities of the object, and attempted to explain the representations and meanings based on those descriptions. I also discovered this experiencing process may not be in a linear order. The physical artwork experience involved in certain continual repetition in this notion–description–interpretation pattern for the meaning-mediating attempts, which was subjective, dynamic, multi-layered, and complicated. For instance, the participant could notice another component of the same artwork after they already explained their interpretation. The new noticed material to some extent changed and updated the interpretations they already had. Such observation on physical artwork experiencing pattern helped to develop the fieldwork structure and guideline design for the fieldwork participants.

Secondly, although there was a printed exhibition floorplan and descriptions provided, it is also obvious that the body movements in the physical gallery space could be very different based on individual decisions. During the pilot data analysis, I speculated that such body movements could possibly be an external and visible unity led by multi-sensational notions, focuses, thoughts and gestures. Therefore, I decided to collect the fieldwork participants' body movements in the fieldwork exhibition space apart from their verbal description on their experience.

There are some other discoveries in the pilot study that could effectively anticipated the aspects in understanding the fieldwork data. These discoveries included: the metaphoric expressions in describing artworks' appearances, and the power issue in the artists–art viewers relation. The participant could make speculations on the making methods and techniques by the trace and texture of the sculptures. Furthermore, the participant's interpretation could be strongly influenced by the personal history, cultural background and subjective interests.

4.1.2 Fieldwork participants' group

Ideally, the participant group should cover the stakeholder mapping demonstrated in 3.2.4. Four participants took part in the fieldwork, and they were coded by number in their participating order. I will start by briefly introducing the participants' background information and their preferred data collection methods. P#1 is a PhD student in space engineering. P#2 is a PhD student. P#3 is a student. P#4 is an M.Res student with previous knowledge in art making, archives, museum collections and exhibiting work in an art school environment. Apart from P#3, who chose collection method b) the after-interview, all other participants generated their data as audio recordings while experiencing the exhibition. All participants were happy for follow-up interviews, and P#2 and #3 were interviewed about their thoughts and reflections on expressing themselves about art in the gallery space. Full versions of their transcripts are accessible in Appendix C.

4.2 The result of fieldwork data analysis⁹

Due to the limited quantity data collected in the After-activity Survey, the data analysis will mainly focus on the discoveries from the subjective descriptions of gallery experience, which will be demonstrated from three aspects in this section.

9. Participants' statement examples will be in Baskerville typeface with single quotation marks. Quotations longer than two lines will be presented in a different quoting format.

4.2.1 Experiential themes from an 'Object-Oriented' lens (things/artworks themselves, relations with artworks, metaphors.)

4.2.1.a *Perceiving and meaning making from real objects*

Firstly, I will argue that the meanings and concepts of an art object could partially be its real qualities of it. From the 'Object-Oriented' point of view, we uncovered that real qualities of an object are those that maintain things in themselves (which can be observed from Hume's 'Bundle Theory' in 2.1 and the painting example in 2.2.1). As we already know, there are differences between artworks and everyday objects, and I would suggest the meanings and ideas 'in' art objects are essential qualities that make them unique. Some discussions highlighted the importance of ideas in artworks, claiming that artwork is no more than the ideas behind it (Savedoff, 1989, pp.160–161; Morgan, 1996, pp.1–9; Cray, 2014, pp.235–236). However, I do not believe we should completely reject the physicality of art objects. The reason of which is similar to the limitations of Hume's 'Bundle Theory', that a thing cannot be only its qualities or relations, but also from the undermining perspective as the formed matter (Heidegger, 2002). Potentially, we might benefit from this emphasis on ideas that the meanings could make art objects different from everyday objects. Another approach is how we interpret these meanings: Husserl's idea that real qualities can only be accessed through intellectual activities rather than sensuous intuition (Harman, 2011a, p.49). Combining with Harman's insights on real qualities, how we make meaning from artworks is a similar method that we, as art viewers, externally interact with artworks' appearances, but only 'guess' the meanings in our mind through internal intellectual processes. These two approaches inferred that an art object's meanings, concepts, and ideas could be the real qualities, which allowed us to discuss meaning-making under the same 'Object-Oriented' philosophy system.

Then we may start to understand these subjective descriptions through the 'Object-Oriented' lens. We observed that participants' interactions with artworks might follow a particular pattern through verbal descriptions. Coding with the terminologies from the *Quadruple Object*, participants started the experience by interacting with the physical artworks (Real Object). Then the perceived qualities (Sensual Quality) and impressions (Sensual Object) gradually build up in this process. Finally, participants may articulate the meanings (Real Quality) of those artworks. There were limited meaning statements captured, but some examples suggested such an approach of interaction and experience, for instance, P#4 said at *Artwork 4. (i)*:

P#4 | ☞ Em... So then I'm just looking at the vitrines as well, so there's... a really
 Artwork 4. (i) | lovely map and one of... So I'll just go into the first one. And there's a
 map, em... and it's kind of got... looks like it's got different places in the
 world and maybe represents where some of these whales and dolphins
 maybe exist? Em... There's... em... they're kind of represented by these
 lovely sort of metal elements. They are kind of reticulated on the surface,
 so they've got this kind of lovely texture of silver, em... at different points'.



Figure 12, Artwork 4. (i) Project research 2020/21, at *On Sonorous Seas Mhairi Killin*, GSA Reid Gallery 26 Nov.–17 Dec. 2022, (Author photographed, 2022)

And:

P#4 | ☞ And then it looks like the artist's(/artists') sketchbook as well. Kind of
 Artwork 4. (i) | different... different settings maybe? or... of whales and dolphins em... at
 different points like... [inaudible content]. Beautiful handwriting as well.
 Again, just lovely sort of poetic pieces of writing as well. Lots of nice tex-
 tures, kind of patterns, almost like mapping the em... the journey of the...
 the whales and the dolphins'.

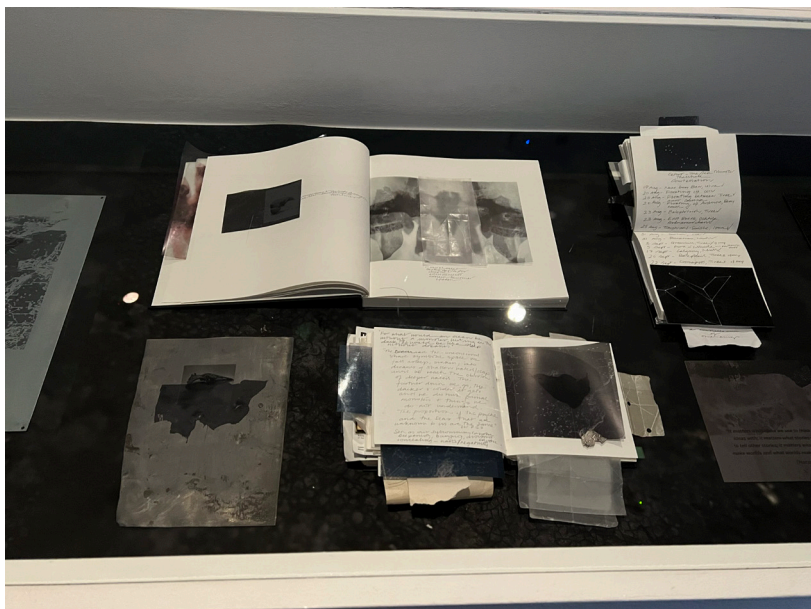


Figure 13, Artwork 4. (i) Project research 2020/21, at *On Sonorous Seas Mhairi Killin*, GSA Reid Gallery 26 Nov.–17 Dec. 2022, (Author photographed, 2022)

Also, P#2 at Artwork 3.:

P#2 ¶ Going now to the wall. Just reading forty-five voiceless beached whales.
 Artwork 3. Kind of interesting to see how it melts literally with the wide wall. [...] Coming where I stand now. So I turned a bit around. It's so interesting because I stand now like a couple of centimetres in front of the wall. To read actually what's written. It's a poet poem. The grey letters. It's actually nice to see in the wall the... kind of bones, right? How it's... on the paper and then not. And how the nails go into the paper and represents somehow the... torture and the... I sometimes I just look at the words, just that some of them like welcome, island, shells, ships. Actually interesting 'cause it doesn't need much words to describe what's happening. And it's already written down that that is voiceless. Kind of a sad feeling coming up'.

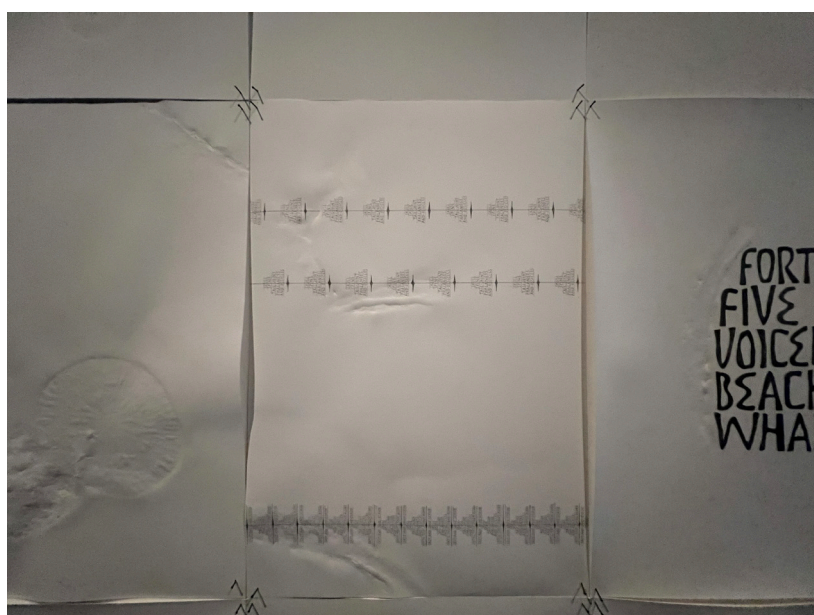


Figure 14, Artwork 3. *Ossuary*, at *On Sonorous Seas Mhairi Killin*, GSA Reid Gallery 26 Nov.–17 Dec. 2022, (Author photographed, 2022)

4.2.1.b Analogies and metaphors in describing appearances of the art objects

The first point in the fieldwork activity guidelines for participants encourages them to describe their sensations from the artworks. It is noticeable that while the participants described the appearance of artworks, they all used metaphors or analogies to describe different pieces in the exhibition. These metaphoric statements included descriptions of visual information and covered sound, smell and other sense data. Metaphors were used as an indirect description based on the perceived sensual qualities of the art object and related to their personal memorial history. Some of the related statements are:

Artwork 1.

P#2 | ☪ And after reading it, actually I'm... I feel like I'm part of the... or in the middle of an ocean. Because I can't hear anything else [...] It's quiet. Weird to enter this place. Feeling like being in the ocean'.

P#4 | ☪ That's kind of... the texture is quite sort of em... like mottled almost?... like it's... and there's a kind of scene running up the metal that looks a bit like stitches as well. It reminds me a bit of... kind of some em... some kind of stitches, as if someone's had an operation or something'.

P#4 | ☪ And there's some bits when the skull as well that are sort of glinting em... a bit like diamonds or sparkles or something'.

P#4 | ☪ ...and there's colours that are kind of... beige and grease and quite neutral colours, because it's like a skull. It's... it's the colours that you would maybe expect, but it also looks a bit like a piece of kind of driftwood or something that would wash up on a beach'.

Artwork 3.

P#1 | ☪ There are pieces of paper with... words and poems. And... the way the words are put on the paper... looks a bit like waves'.

P#2 | ☪ Kind of interesting to see how it melts literally with the wide wall'.

P#4 | ☪ The shapes are really pleasing to look at as well. They're quite organic and the way that they catch the light again because they're kind of embossed onto the paper. One looks a bit like a jellyfish'.

Artwork 5.

P#2 | ☪ It's a washing machine'.

P#2 | ☪ I feel I'm like... swimming or something because the sounds around me and all the words... about seas and dolphins and whales and...'

P#4 | ☪ Can hear sort of sounds of running water'.

P#4 | ☪ I feel like there's a few different images coming to mind. I feel like floating em... kind of floating on air or water just with that kind of sound. It almost sounds quite... I mean, I'm not religious at all, but it kind of reminds me of sort of being in a church or something as well and just being... sort of, I don't know, just that kind of 'transcendent feeling maybe? [...]' but I think for me it just... it reminds me of nature'.

Artwork 6.

P#1 | ☪ Uh... I like the fact that they used shiny materials because this look like really stars in the sky'.

P#4 | ☪ Maybe like like a fist or something that's kind of closed over with the fingers kind of folded over...and?..

P#4 | ☪ So those go right up the wall. It almost looks a bit like a kind of climbing wall as well because they go as I say, they go right up the wall. The wall's quite big. And there's lots of them at different intervals with it. It looks a bit like when you go rock-climbing [Chuckle] at a rock-climbing centre or something. Em... but they're just really lovely shapes. One of them reminds me a bit of a heart as well maybe? Em... or some sort of org.. like internal organ...'

Artwork 7.

P#1 | ☪ On the screen I can see, some very faint... blob-like figures. It's a bit like when you put oil in water'.

P#2 | ☪ Oh, it actually looks like I'm I cannot touch the floor 'cause it looks like... It's water'.

P#3 | ☪ Then there was a bit like rain... like the sound of water'.

P#3 | ☪ I just saw in the middle there was something a bit like, uh... the stars dotted, and then it was with the sound of rain, and some of the vertical lines, like there was some combinations of visuals and sounds'.

P#4 | ☪ This is like a sort of sound bath [...] It's like... as I say, it's a bit like a... a sound bath. I've never had a sound bath, but... [Chuckle] but it's a bit... what I would imagine that was like. Em... yeah, it's just really really peaceful. Ah... [Chuckle]... yeah... That reminds me like I think you can sort of picture the different animals in the ocean'.

P#4 | ☪ ...the screen's gone weird and it's kind of like it almost feels like I'm on a train now. Em... so it looks like it's kind of going past... the window of a train and everything's... it's like these horizontal lines that are moving up and down'.

Using metaphors and analogies in appearance descriptions on the perceived sense data is a lived example of Harman's 'allure' and 'eidos', which explained the relation between the sensual objects, real qualities, and sensual qualities (Harman, 2018, p.85). While people interacted with the real object, they processed the physical appearance into the sensual qualities, established the sensual object in the relation, related it with some detached quality and sutured it with a different thing (Austin, 2010, p.74). To some extent, this 'allure' process was also associated with meaning-making. It connected the unfamiliar object with some experienced ones and dynamically structured the meaning from this perceiving and interpreting process.

Taking P#4's description of *Artwork 5*. as an example, the sound of the podcast reminded them of a religious setting in a church. They explained this process of perceiving activity very well:

P#4 | **Artwork 5.** I think em... that's kind of the sonorous noises that we can hear, I feel like there's a few different images coming to mind. I feel like floating em... kind of floating on air or water just with that kind of sound. It almost sounds quite... I mean, I'm not religious at all, but it kind of reminds me of sort of being in a church or something as well and just being... sort of, I don't know, just that kind of transcendent feeling maybe? That people maybe get from... from being.. em... in a church or em... doing religious [...] Em... but I think for me it just... it reminds me of nature. Just I... I suppose... that's my kind of... yeah, it sounds a bit... silly, but like em... it's probably my idea of being in a church or whatever or... or kind of being religious as just being amongst nature and just the... the [inaudible content] and the wonder of it'.



Figure 15, *Artwork 5. Listening Station – On Sonorous Seas Podcast*, at *On Sonorous Seas* Mhairi Killin, GSA Reid Gallery 26 Nov.–17 Dec. 2022, (Author photographed, 2022)

In this scenario, the participant heard the sound of sonorous noises and got the sensual qualities (which they didn't verbally explain in detail) as 'transcendent feeling'. They compared this 'transcendent feeling' with 'floating on air or water' and 'being in a church'. The sensual qualities from the depth they didn't verbally explain unified the sensual objects

on the surface. And through this metaphoric explanation, they gradually developed their interpretation of the art object as 'being religious' and 'being amongst nature'.

In summary, these data examples found that metaphoric descriptions were commonly used as an indirect but effective way of describing appearance. Metaphors were also involved in experiencing and interpreting art objects, as demonstrated in the following diagram from *OOO*¹⁰ (Fig.16).

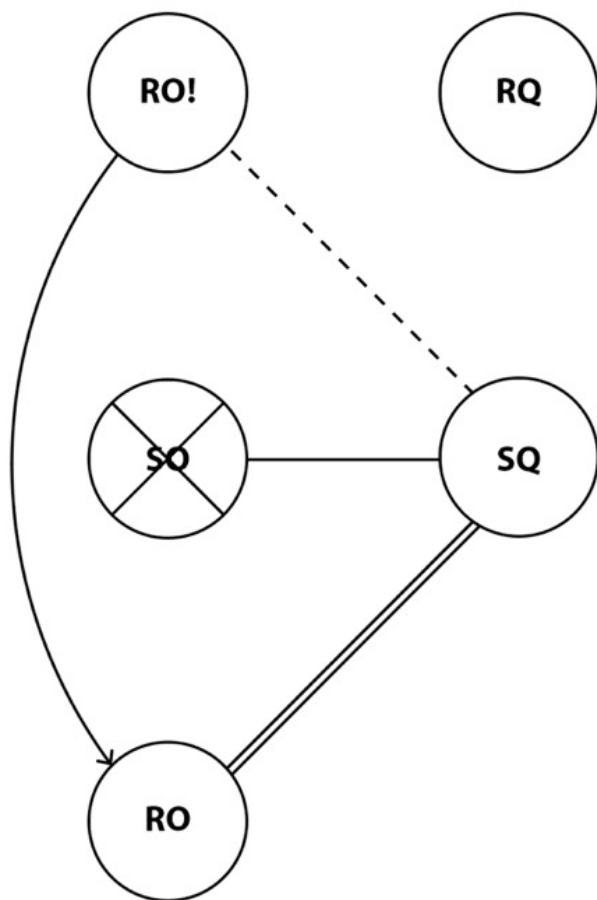


Figure 16, *Metaphor and Allure*, (Harman, 2018, p.85)

10. "In this diagram we initially have the normal case of a sensual object with its sensual qualities. By assigning improbable but not impossible new sensual qualities to the sensual object – such as the metaphorical 'wine-dark sea' rather than the literal 'dark blue sea' – the sensual object 'sea' is cancelled (hence the crossing out of SO above), being unable to uphold such unusual qualities. A mysterious real object is needed to do the job. But since sea as real object withdraws inaccessibly from the scene (hence the exclamation point! on the uppermost RO above), the sensual qualities of the metaphor are supported instead by the only RO that is not withdrawn from the situation: I myself, a real experiencer of the metaphor". (Harman, 2018, p.85).

4.2.1.c Connections, comparisons and references

Some participants verbally said they referred to a previous art piece while presented to another. This might indicate that the participant could establish a sensual object based on the real object, and connect them with the presented artwork. These examples could also conclude in a gradual development of meaning-making through their experience in the exhibition. For instance, from the overall reflection from P#3, they said:

P#3 | Well, indeed, I think the real things/physical things are still more attractive to me, such as the bone at the beginning, but all the latter content will make my impression of this bone richer and deeper'.
 Artwork 1.



Figure 17, Artwork 1. Extant, at *On Sonorous Seas* Mhairi Killin, GSA Reid Gallery 26 Nov.–17 Dec. 2022, (Author photographed, 2022)

The statement suggested the participant got an impression of *Artwork 1*. as the ‘main exhibition object’ throughout the whole exhibition experience process. And the other art objects in the exhibition worked as supplementary roles that supported their experience of *Artwork 1*.

A more specific example statement was from P#4. They saw *Artwork 1*. at first, and later when they were at *Artwork 4. (ii)*, they said:

P#4 Artwork 4. (ii) ‘There’s some more... bones, I don’t know if they’re kind of castings or if they’re actual... em... actual bones as well, but they’re in the second the vitrine as well, and they’re kind of lined up in a line. So they look like... kind of skulls again, or parts of skulls, but I’m not sure if they are. Em...and they look a lot more blackened than the first skull that we looked at em... at the start of the exhibition’.

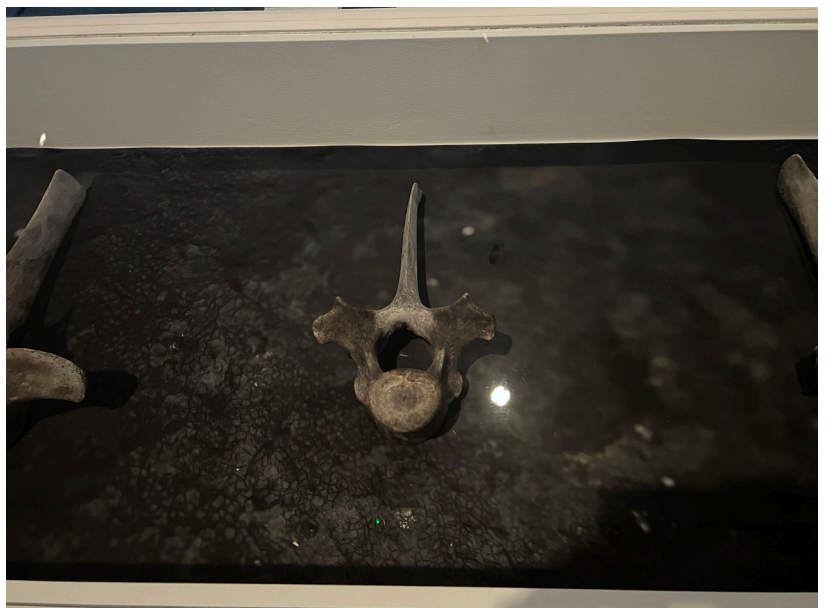


Figure 18, Artwork 4. (ii) *Project Research 2020/21*, at *On Sonorous Seas* Mhairi Killin, GSA Reid Gallery 26 Nov.–17 Dec. 2022, (Author photographed, 2022)

In this example, the skull in *Artwork 1.* was larger than the skulls in the vitrine. At this moment, P#4 was absent from *Artwork 1.*, but they could refer to the previous object while interpreting the new one. In comparison, objects in *Artwork 4. (ii)* are much smaller and 'a lot more blackened' than the 'first skull', which confused P#4 about whether they are casting, actual bones or 'parts of skulls'. Later from the same participant, while watching *Artwork 7.*, the participant recognised the similar visual elements presented in *Artwork 4. (i)* as they said, 'the map's beautiful and that looks like it's the same map that's been etched onto some of the other work with some of the metal pieces as well'. The example might validate that the perceived sensual objects and qualities helped interpret a new artwork.

In summary, the fieldwork discovered that participants could make connections, comparisons and references from the experienced works (SO) while interpreting new art objects. Audiences were absent from the experienced artworks, but they could refer to the SO and connect it when presented with new works. From a different perspective, this process could also suggest the building-up and development of sensual objects and qualities during the overall exhibition experience.

4.2.1.d The multi-roles of text in mediating meanings for participants

There were several text-based works and elements in the fieldwork setting. Text was an essential material in art pieces and exhibition with different roles. These included the printed introduction text at the entrance; calligraphy work *Ossuary (Artwork 3.)*; and audio-recorded podcast series, *Listening Station - On Sonorous Seas Podcast (Artwork 5.)*, presented on tablets with headphones and seats. The transcripts uncovered participants' different reactions to these formats of text, which will be discussed further in this section.

I will start with the exhibition introduction text, printed on a large scale on the wall. The exhibition also provided printed handouts for audiences. In this introduction format, the text required audiences to read through and receive the background information. All participants described their actions of reading at the very beginning of the activity (P#1-4), and some of them (P#1) suggested they referred to the exhibition leaflet through their experiencing process.

On the other hand, *Artwork 3. Ossuary* was a calligraphy piece which consisted of 20 pieces of paper. The paper was embossed with whalebone and nailed on a white wall in the exhibition space. The text was hand-written in different grayscale colours, sizes, and shapes, which could be seen as patterns from a distance. The text was implemented as text information (which requires audiences to read), poetry (which includes a unique flow of text), and pattern or image to convey visual language. These multi-roles of text required participants to perceive text information from different perspectives. For instance, as P#4 described:

P#4 | Em... and then there's other pieces of paper that have got the poetry
 Artwork 3. | written on them in different ways. One of them's kind of got a poem, but
 it's written in really tiny hand-writing, so you almost think it's a pattern at
 first rather than text, but then when you look closely, you can see that it's a
poem written into... to look almost like a pattern'.

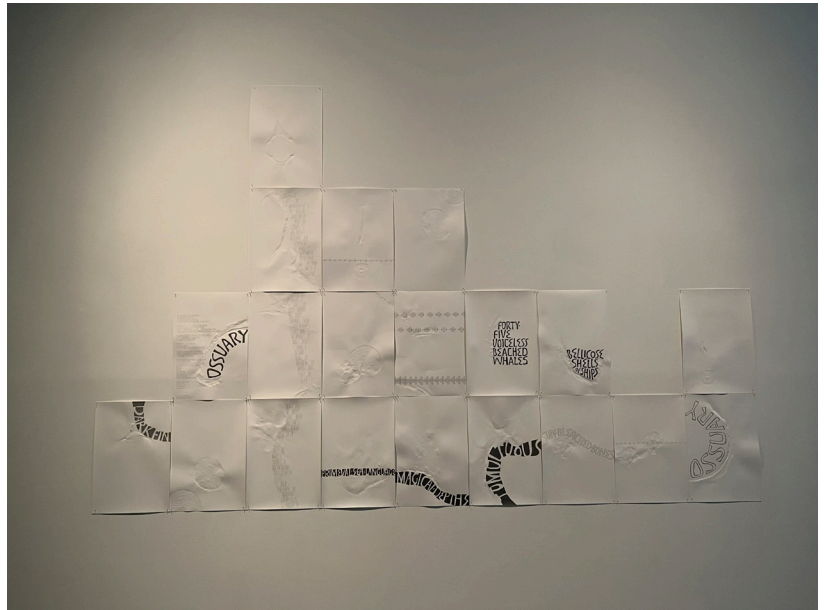


Figure 19, Artwork 3. *Ossuary*, at *On Sonorous Seas* Mhairi Killin, GSA Reid Gallery 26 Nov.–17 Dec. 2022, (Author photographed, 2022)

This might indicate that we interpret text and the visual of text in separate ways. In doing so, we might need to identify the format, and approach the visual language and the text reading. Noticing and interpreting visual text would cause body movement and a change of viewing angles. For example, P#2 said about the same work:

P#2 | It's so interesting because I stand now like a couple of centimetres in front
 Artwork 3. | of the wall. To read actually what's written. It's a poet poem. The grey
 letters. It's actually nice to see in the wall the... kind of bones, right? How
 it's... on the paper and then not'.

It is also worth mentioning how people see the text as a poem, since there was a recognising delay from P#1 and P#2 between reading the text and saying they are poems.

Finally, another format of text in this exhibition was the verbal text in *Listening Station - On Sonorous Seas Podcast* (Artwork 5). This artwork contained seven episodes of podcasts in which the artist, Mhairi Killin, told the stories through the project and presented artworks in seven aspects. The user interface on the tablet required audiences to read through and select the categories, which was the same example as the text introduction. Furthermore, in this scenario, verbal text and sound effects were engaged in different sensations from participants compared to the two formats above. While the artist was absent, they were hauntologically 'present' themselves in the gallery space (which will be discussed further in the later section, 4.2.1.f). The using of verbal text helped audiences to understand the concept and context of the exhibition. For example, P#4 said:

P#4 | **Artwork 5.** | I feel like I've listened to the bit about Mhairi Killin, where she's talking about her em... the sound of the... of the sea and sort of understand a bit better, I can put into context a little bit better what the exhibition's about[...].

In summary, through the collected subjective data, I've captured three text formats in this fieldwork setting: written text, visual text, and verbal text. Moreover, this distinction of forms may differ in the interpretation and experience methods to the audiences.

4.2.1.e Emotional and physical reactions

I discovered that the visual effect of material used in artworks might direct participants' emotional and physical reactions, and further cause intentions and decisions. *Artwork 7., A Constellation of Strandings*, was a 45' video installation that took up a separate dark space in the gallery. There was a reflective board placed below the projection wall. Just after entering the dark projection room, both P#2 and P#3 commented that the reflective material of the floor caused a sense of 'insecurity' and they did not want to 'step on it' or 'touch it'. This might be a general example that the visual perception of material influenced some participants' intentions and emotional reactions.

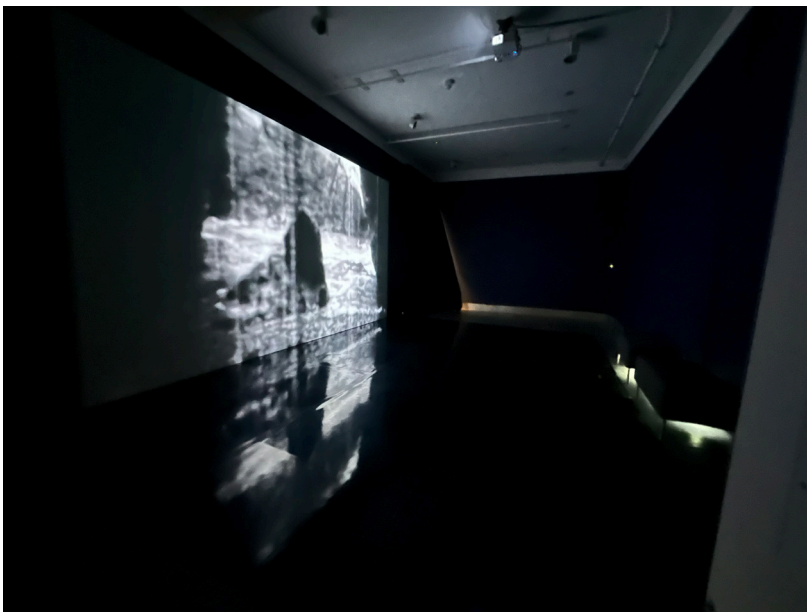


Figure 20, *Artwork 7. A Constellation of Strandings*, at *On Sonorous Seas Mhairi Killin*, GSA Reid Gallery 26 Nov.-17 Dec. 2022, (Author photographed, 2022)

More specifically on the emotional reactions, after experienced *Artwork 3, Ossuary*, P#2 summarised their emotional reaction as 'kind of a sad feeling coming up'. Reviewing their experience and interpretation of the artwork, they described the artwork's visual appearances, the action of reading text information, perspective changes and a few attempts of potential sense-making, which ended up with an emotional reaction that they got from the artwork. A similar and more detailed example was given by P#3 about *Artwork 1., Extant*, which was based on the unique material of bone. Before they entered the exhibition space, they were 'very happy', and after noticing the art object, they recognised the artwork was made of a whale's skeleton. They described their reaction as 'it was a complicated feeling' and 'the feeling of loss', 'a feeling that it (life) was unreachable and it's leaving further and further away'. Noticed these emotional changes, and later they explained the reason was based on several sensual qualities they perceived, such as

'it (the artwork) is in a large scale', 'it is right in the middle', 'they lifted it up very high' and 'the skeleton' material and the 'pores on it'. These sensual qualities from art object perceptions triggered a few meanings they produced, such as the bone suggested 'life is not alive anymore' and the pores and texture of the bone suggested 'it was related to the bubbles in the sea and the sound of the dolphin'. Through the meaning perceived, it caused an emotional reaction.



Figure 21, Artwork 1. Extant, at On Sonorous Seas Mhairi Killin, GSA Reid Gallery 26 Nov.-17 Dec. 2022, (Author photographed, 2022)

Therefore, I may suggest the possibility of this emotional reaction from artworks procedure as: 1 real object experience; 2 sensual qualities perceiving and sensual object building; 3 possible meaning-making; 4 emotional reaction and 5 decision-making.

A physical reaction example was about Artwork 7. While P#4 saw the visual effects of 'horizontal lines that are moving up and down' on the screen, they expressed the physical reaction as 'probably be a bit sick in a minute'. In this case, the participant didn't describe any attempts at the meaning of the visual effects, but directly expressed the intention of leaving the space. Also, in the same screening room P#2 said:

P#2 | 'The music is getting louder and louder. Look at all the squares that are
 Artwork 7. | on the wall. And I actually feel more comfortable because I see more of it
 and I kind of lean back. I feel better now'

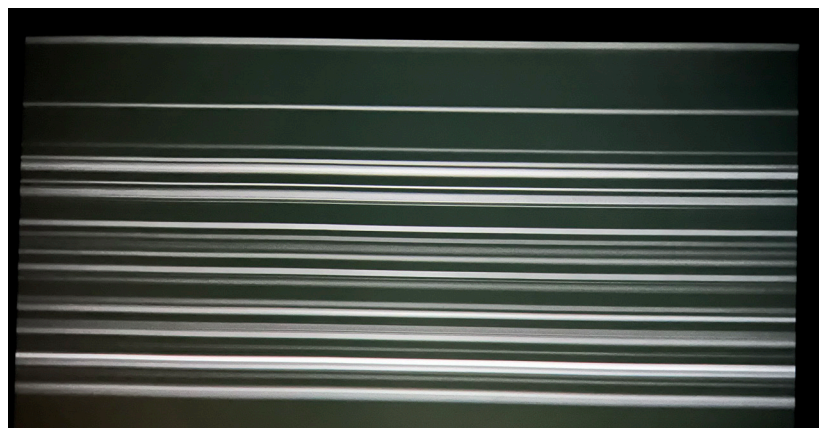


Figure 22, Artwork 7. A Constellation of Strandings, at On Sonorous Seas Mhairi Killin, GSA Reid Gallery 26 Nov.-17 Dec. 2022, (Author photographed, 2022)

This example followed a similar pattern of this physical reaction expressed during the experience. Therefore, I may suggest that the physical reactions from art objects could hide and/or cancel the meaning-making compared to the previous speculation on the emotional reactions, as: 1. real object experience; 2. sensual qualities perceiving and sensual object building; 3. physical reaction and 4. decision-making (Fig.23).

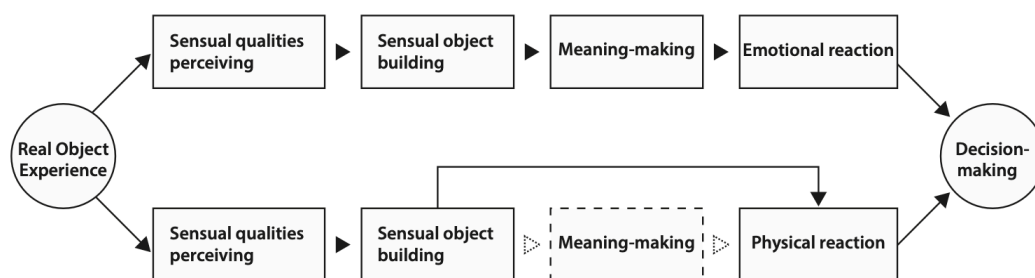


Figure 23, The Process of Emotional and Physical Reactions and Decision-making Based on Real Object Perceiving, (Author owned, 2023)

4.2.1.f The audience–art object–artist relation

The artists were absent in the fieldwork setting for all the participants. This condition meant that the participants did not have any access to communicate with the artists directly. This point is echoed in the human–object relation mentioned in my previous study, ‘the Layering Model’, where participants interpreted the ideas indirectly through the objects. However, apart from the obvious audiences–art objects relation captured in this exhibition, several elements made up for the consequences of the artists absence from audiences. For example, in *Artwork 5.*, the listening station contained seven episodes of podcasts where the artist, Mhairi Killin, talked about the artworks and projects from many aspects, the story, the music, the sounds, the Gaelic etc. P#4 responded that the podcasts helped them ‘sort of understand a bit better, I can put into context a little bit better what the exhibition’s about [...]’. To some extent, the hauntological presence of artists’ positions in the space contributed to audiences’ meaning making. In this scenario, I would suggest that the podcasts created a one-way communication that the hauntological presence of artists was involved in the audience-object relation while experiencing the exhibition.

However, as a simulation of artists’ presence, there was still a loss of open dialogue or interactions. For instance, P#3 expressed that while watching the video work, they could not be engaged in an ‘interaction with it’, as they were ‘just listening to them expressing themselves’.

4.2.1.g Spontaneous body movements and observations

Through the participants’ interactions with artworks, many described the spontaneous body movement based on the visual appearances of art objects. For example, as mentioned in 4.2.1.d, P#2 said they ‘stand now like a couple of centimetres in front of the wall’ to read what was written in *Artwork 3* (Fig.19). Another example from P#4 was when they were looking at *Artwork 1.*, they said, ‘[...] and you can walk right underneath it as well, which is great because you can kind of see it from all angles’.



Figure 24, Artwork 1. *Extant*, at *On Sonorous Seas* Mhairi Killin, GSA Reid Gallery 26 Nov.–17 Dec. 2022, (Author photographed, 2022)

From changing perspectives and closely observing those art pieces, some participants had a clue about the material and making process of the objects based on their visual appearances. Their speculations were not suggested by any text information. P#4 offered their guesses on the artwork's material and involved producing techniques:

P#4 | they look as if they've maybe been cast out of brass or bronze' based on
 Artwork 6. | the visual appearance of 'hammer marks or tool marks' and 'they (the artefacts) are really really shiny'.



Figure 25, Artwork 6. *A Constellation of Strandings*, at *On Sonorous Seas* Mhairi Killin, GSA Reid Gallery 26 Nov.–17 Dec. 2022, (Author photographed, 2022)

In summary, the phenomenological statements suggested the spontaneous body movement caused by artworks' appearances and the ability to trace back to the making process through the sensational data while interacting with the art objects.

4.2.2 Experiential themes beyond the thing

4.2.2.a Immersive impression of the space

We captured some participants mentioning their responses to the space once they entered the gallery. Before they noticed or started interpreting artworks or any text materials (Fig.24), P#4 said:

P#4 | ◉ First of all, I'm kind of thinking. It's quite a nice kind of dark space. It's quite
Room 1 | kind of atmospheric when I've come into it. That's the first thing I notice'.

The immersive impression of the space or the experience of atmosphere might be beyond the artworks themselves, which viewers could also perceive and experience.

Similarly, P#2 mentioned:

P#2 | ◉ OK. You can see. Something in the middle of the room. I don't know if I
Room 1 | find the sound very welcoming. I'm just reading the info paper now'.

Later after they read through the text introduction on the wall, they further described:

P#2 | ◉ Actually I'm... I feel like I'm part of the... or in the middle of an ocean,
Room 1 | because I can't hear anything else [...] It's quiet. Weird to enter this place.
Feeling like being in the ocean'.



Figure 26, Artwork 1. Extant, at *On Sonorous Seas Mhairi Killin*,
GSA Reid Gallery 26 Nov. – 17 Dec. 2022, (Author photographed, 2022)

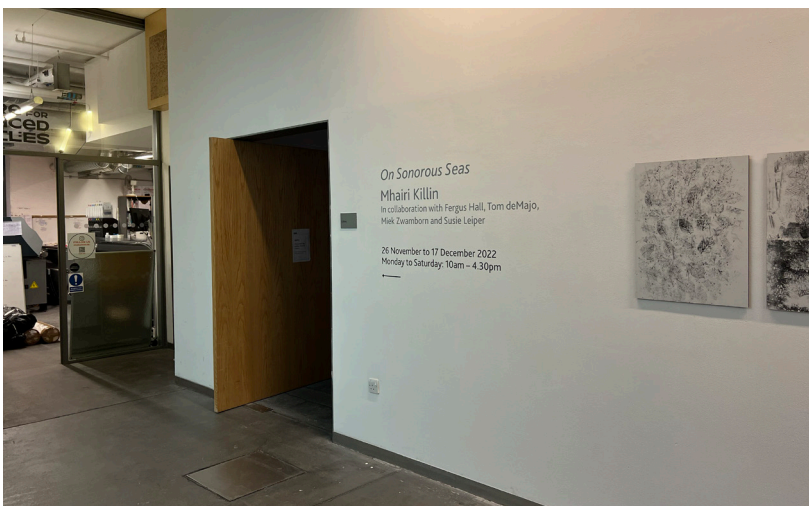


Figure 27, Exhibition Entrance, at *On Sonorous Seas Mhairi Killin*,
GSA Reid Gallery 26 Nov. – 17 Dec. 2022, (Author photographed, 2022)

Combined with the statement with P#4, we could see that the sound and brightness/ lighting of the space played an essential role in the atmospheric setting. Although participants had different responses and judgements of it compared to the area outside, these statements shared possible insights into sound and lighting.

Apart from the first discovery, I also realised participants could sense the different atmosphere between spaces. The exhibition was divided into three separate showrooms. The larger scale of the whale skeleton was presented in the first; the video installation was screened in the last; and all other works were exhibited in the middle room. The most significant response was about entering and exiting the last screening space. While P#2 left the last room and went back to the middle room, they said, 'it's actually so different coming back now into the room of all the lights. Different music'. Similarly, the two potential features that influenced the atmosphere of space could be the lighting and sound.

4.2.2.b Unexpected sense data

Apart from the considerations related to and designated to the artworks and exhibition, some participants described they captured some other sense data in the gallery space. For example, P#2 and P#4 demonstrated different smell data at the same place:

P#2 | ☞ And I can also smell something. Which I cannot really define. [...] Here's more
Artwork 1-3. | about I don't know is it lemon? Kind of just... tropic fruits Is it? Not sure?"

P#4 | ☞ I can almost smell the sea, but I don't know if that's just because I'm
Artwork 1-3. | immersed in the experience'.



Figure 28, Artwork 1–3 Exhibition Space, at *On Sonorous Seas* Mhairi Killin, GSA Reid Gallery 26 Nov.–17 Dec. 2022, (Author photographed, 2022)

However, the smell was not mentioned by the curators or artists as a part of the curatorial considerations.

Sound and visual sensations were mentioned by P#3. While listening to the audio work (*Artwork 2. Ossuary*), they looked for where the sound wave came from, and their attention was redirected to the light setting on the ceiling. P#2 noticed they were

distracted by the people passing by outside the curtains and windows. And P#4 said they noticed the noise outside the gallery while listening to the podcasts (*Artwork 5*). Also, they mentioned the burnt surface of the vitrine. Besides visual, sound and smell, other sensational data were captured, for example, the coldness of the wall in the screening room. Therefore, based on the subjective responses from fieldwork participants, I believe the multi-sensational unexpected data could be regarded as one of the crucial parts of the exhibition experience.

4.2.2.c The freedom of decision-making

Point four of the fieldwork guidelines asked the participants to capture their body movements on a printed floor plan of the gallery space. The traces varied from participants' personal decisions, even the viewing orders of artworks were different. Overall, some of the participants' viewing orders (2/4) were influenced by the artwork number on the printed leaflet.

Apart from the body movement shown from the trace on the floor plan, many participants verbally expressed their body movements in the space as well. Based on a single artwork, for example, the video installation *Artwork 7*, P#1 mentioned in their additional comments that they were 'standing in front of the screen and moved around in front of it during the entire time'. Similarly, in the same space, P#2 sat at the beginning and then would 'stand up, walk around and look at the bottom of the floor', whereas P#4 was sitting the whole time.



Figure 29, Artwork 7. A Constellation of Strandings, at On Sonorous Seas Mhairi Killin, GSA Reid Gallery 26 Nov.–17 Dec. 2022, (Author photographed, 2022)

These examples suggest audiences have the freedom for diverse decision-making on their body movement, viewing perspectives and other behaviours in the physical space. Some influential features might include multi-sensational data (sound, lighting, visual effects etc.), floor plan, text information and artworks themselves.

4.2.2.d Inaudible content, ambient sound and atmosphere

Interestingly *Artwork 2. Ossuary*, was the piece that was paid less attention by the visitors. The artwork was an audio piece of poem reading with the sound of the sea presented by a directional speaker. It was positioned on the same wall next to the calligraphy, *Artwork 3*, and directed to the middle exhibition space. Through the audio recordings, the sound of this artwork was audible, but many participants said they could hear the sound effects, and someone was talking, but they could not identify the content. For example:

P#2 | **Artwork 2.** | 'I haven't realised before when I stood next to the wall that there was someone. Saying something in the background, but now... are reading the poem. I can't hear what they are saying'.

P#4 | **Artwork 2.** | 'I don't know if you can hear that as well, but there's kind of... like as well as a sort of meditative music, there's kind of em... someone reading out kind of spoken word that you can hear. Can't quite make out what they're saying all the time, but I've got little bits of it'.



Figure 30, *Artwork 2. Ossuary*, at *On Sonorous Seas* Mhairi Killin, GSA Reid Gallery 26 Nov.–17 Dec. 2022, (Author photographed, 2022)

The sound of this *Artwork 2.* together with the sound of the video installation, *Artwork 7.*, could be heard in the first and middle showrooms. Combined with the statements describing the feeling of space in 4.2.2.a, I would suggest the inaudible context of sound contributed to creating the atmosphere which/where people could perceive. Artworks could influence each other through spatial spreading. Moreover, audiences were capable of unconsciously blocking the irrelevant sound information at different points depending on their perceiving objects.

4.2.2.e Social interactions with other people

While the participants viewed the exhibition, I noticed that many of them (3/4) had conversations with the invigilators in the gallery. Mainly the topics covered the exhibition's concept, experiences with artworks, books and publications displayed at *the Nature Library* (*Artwork 8.*) and the reflection of this research activity. This minor

discovery of social interactions in the gallery space reflected Heidegger's idea (1967) about people gathering around things in a space, and echoed the 'opening conversation' concept by CCA Annex Glasgow in the scoping conversation. The exhibition is not only about artworks themselves, but also a communication platform for knowledge exchange, reflections and other social interactions.

4.2.3 Experiential themes suggested the limitations of fieldwork structure and data analysis

4.2.3.a Limitation of verbal language, are we comfortable talking about art?

The data collection method required participants to verbalise their perceiving process and experience while interacting with art objects and the exhibition. The limitation of this data-collecting method was noticed and acknowledged while proceeding with the activity and analysing the data.

Firstly, there was noticeable feedback from the participants about the limitation of verbal language and second language use in describing visual appearances, sense data and verbalising feelings and intangible meanings. This can be seen from the responses at different stages of the activity. For example, on describing the visual appearances of *Artwork 6.*, P#4 said:

P#4 | *Artwork 6.* | ' [...] so ... difficult to describe them, but I'm imagining they might be some sort of again, maybe part of the whale, but just like scaled down'.

P#1 and P#2 expressed the difficulty of verbal description in their conversation with the invigilators, such as:

P#1 | *Conversation* | 'I've never had to express my thoughts so directly, while experiencing the exhibition. So it's very hard to express in words... like what I have experienced [...]'

P#2 | *Conversation* | 'You know making sense of what I see what I feel. And to find words for it? Which I feel so difficult for me, as I'm not a native English speaker'.

Furthermore, some parts of participants' responses may suggest that they may feel uncomfortable talking about art. This might be caused by the gallery space or the potential unbalanced power in the artist-viewer relation. Through the after-activity reflections and by reviewing the transcripts, I noticed the difficulties for participants to express the meaning or concepts they got from the artworks. The perceiving and interpreting activity may happen internally, and it is necessary to be aware of the gaps and biases between the data collected and the pure experience (Smith and Nizza, 2022).

4.2.3.b Activity guidelines may potentially influence participants' experience

Before the activity, I prepared a printed guideline for participants, including four parts I expected to get from their responses. This contained the sensational description of artworks, the meaning they got, how they connect and develop the meanings from artworks and the trace of body movement. Learning from the pilot study, I noticed the

difficulty in talking without any guidelines, so these points were offered to participants. Before the activity, I told the participants that these guidelines might just be some recommendations, and I did not wish to influence their interpretations and experiences. However, I could acknowledge the limitation of the procedure that might potentially suggest and influence their responses to the collected data.

4.2.3.c Behaviour code and tension created by gallery space

Through the activities and reflection with participants, I noticed a potential code in the gallery that influenced their behaviours. This tension might affect and limit people's spontaneous intentions and actions in the space. For example, at the beginning of the activity, after entering the exhibition space, P#4 said, 'I'm not really sure if I'm allowed to be talking'. Also, later when they saw the casting *Artwork 6.*, they expressed their instinct that they wanted to 'touch it', but they were 'not going to because it is an exhibition'. This was a potential example that showed P#4 thought people were not allowed to speak or touch anything in the gallery. Such a principle may restrict our interaction and interpretation of art objects. Also, since some participants may feel uncomfortable talking in the activity setting (4.2.3.a), there could be gaps between their verbal description and their pure experience, which required a critical acknowledgement while understanding the data.

4.2.3.d Participants' subjective interests, personal histories, and cultural backgrounds

By reviewing participants' experiential data, I was aware that their subjective interests, personal histories, and cultural backgrounds may play an essential role in their experience of art objects and exhibitions. These factors could possibly be the reason why participants' experiences may vary. There were some unique observations from individual participants, for example, P#3 discussed the curatorial methods and light settings of the whole exhibition in their overall reflections. P#4 particularly mentioned and explained their interest in the *Seaweed Collector's Handbook* at the *Artwork 8.*, the *Nature Library*, because they're 'really into' and their 'practice comes into'. As discussed in 4.2.1.g, P#4 also captured and speculated on the object-making techniques from the visual appearance of *Artwork 6.*, which 'look like the kind of objects that [they] want to make for [their] project'. These examples proved that the subjective interests, personal histories, and cultural backgrounds diversified participants' experiences.

However, due to the ethical considerations, I designed the fieldwork with a deduction and distance from participants' personal information collected and used in the data (see Appendix A.1, 'What will happen to me if I take part?' and 'What are the possible benefits and risks of taking part?'). It is challenging to collect and analyse these subjective factors within the theoretical scope of this research. Therefore, the participants' subjective interests, personal histories, and cultural backgrounds were not included in the experiential framework to be introduced in 4.3. Such considerations will be explained in the research limitations (7.3.2)¹¹.

11. The inclusion of participants' cultural backgrounds in the experiential framework was raised during the Viva examination. Such inclusion may require a more extended research time frame and a more extensive research portion, which require amendments from the very early preparation stage of project structure design, such as ethical considerations, recruitment, and data collection. Due to the aims and objectives of this research is to generate a general and 'essential' model for DTA interpretation at the ontological and epistemological level. Therefore, discussing the cultural background aspect is not included in this research and will be considered in future research.

4.2.4 The summary of the data analysis result

Through analysing the subjective data collected in the fieldwork, there could be several discoveries about people's experiences and interpretations in a physical gallery space. The themes and findings were categorised through three lenses. Firstly, from the 'Object-Oriented' perspective, we discovered how participants experienced and interpreted artworks in the exhibition setting. The discussions were through art objects themselves; the artist-object-audience relation; the role of text materials; and audiences' reactions. Secondly, we understood participants' experience beyond the object perspectives, where we noticed the atmosphere setting; unexpected sense data; decision-making and social interactions in the space. Finally, we were also aware of some limitations to this fieldwork and the data collected, which may include the difficulty in verbalising experiences; potential suggestions by the activity guidelines; and the behaviour code in the gallery space. With the outcome of the data analysis, the next section in this chapter will attempt to build a framework for the physical exhibition experience.

4.3 Experiential framework from physical exhibition experience

After understanding the phenomenological experience from the data collected in the fieldwork, I will attempt to frame the physical exhibition experience from similar lenses in this section. The framing of understanding a physical exhibition experience aims to set up general implementing and evaluating perspectives to compare and review some online exhibition examples. The framework was suggested by the discoveries through the data analysis from two categories: firstly, the thing and thing-related perspective; and secondly, the beyond-thingness perspective. The framework potentially might represent our experiential habits of perceiving and interpreting artworks from a physical exhibition, which could also offer some reflections and discoveries on the current online exhibition cases.

4.3.1 The thing and thing-related framework

In this section, I will develop some critical points from the discoveries of the physical exhibition experience. The 'thing', in this scenario, could mean the discussion about art objects themselves. At the same time, 'thing-related' may suggest the surrounding relations with art objects, such as the artist-audience relation.

Firstly, I will talk about the artworks themselves and how we interact with them. I would name it **the interaction with art objects**, which could be the most straightforward point to examine our experience with artworks. It includes the material analysis of the art objects themselves. Referring to Harman's *Quadruple Object* and the overall understanding of each subjective data, we uncovered that the speculative interpretation of a physical artwork might need to go through a dynamic and multi-directional process. In this process, an audience would interact with the appearance of the physical object (RO) through multi-sensations, perceive it through the sensible qualities (SQ), build up a perceptual object (SO) and then intellectually interpret the meaning of the work (RQ). In

the physical exhibition examples, the following meaning, judgements, understanding and reactions all started from viewers' proceeding a direct interaction with the physical art object. Therefore, I would suggest the first point of view is from the interaction with art objects.

Secondly, I would suggest the viewers' **relation with artists** in this framework. From a communication point of view (Berlo, 1960, pp.30–38), and reflecting on my previous study, artists (encoders) and viewers (decoders) communicate through art objects (the messages and channels). Also, as suggested by the presence and absence question in 4.2.1.f, it is necessary to look at how to position the sender and receiver of information in art-related communication. For example, the artist 'spoke' through the podcasts and audio works in the fieldwork exhibition. They tried to talk directly to the audience, and some participants responded that it helped them understand the exhibition's background information. Many of them mentioned they would scan the QR code and listen to them after the show. Therefore, apart from directly looking at the relation with art objects, it is also essential to evaluate from the viewer–artist relation perspective to understand how we experience artworks in an exhibition.

Later on, if we zoom out and look at the artworks in the whole exhibition visiting process, instead of analysing a single piece of artwork, we can notice the relation among different materials, in general, helped in the meaning-making. Here, I would suggest references and connections, where we were able to connect artworks (RO) through SO. Since we can only perceive one 'thing' at a time, as suggested in 4.2.1.c, we are capable of making **connections and references** among artworks when we are presented to another. As discovered, such phenomenon proved the being of SO, which may play an important role in interpreting each piece of artwork, and also in building up an overall understanding of the exhibition.

Finally, in this thing and thing-related lens, more externally, is the *freedom of decision-making* around artworks and exhibition settings. The decision-making here indicates how much space or freedom is available for spontaneous behaviour, body movement and changing viewing points. Behaviours or perspectives could be more visible sometimes. It is necessary to observe and record viewers' body movements and other external behaviours while they interact with artworks. We have noticed some spontaneous behaviours directly caused by the appearances of art pieces in the collected descriptions. For instance, when P#2 looked at the cartography work, they moved very close to the paper. Therefore, it matters to evaluate whether the exhibition or artworks presentation set up any limitations to this intentional decision-making. This may create boundaries to our approach method and relation to the art objects.

In summary, through a thing and thing-related lens, I suggested four points to evaluate our experience with art objects and exhibitions based on the understanding of subjective experiences in the fieldwork: 1. the interaction with art objects; 2. artist–audience relation; 3. references and connections; and 4. the freedom for decision-making.

4.3.2 Beyond-thingness framework

As discovered from the data analysis, we could see to understand the exhibition experience. It not only suggested artworks themselves, but also directed to some other features that were beyond things. So, in this section, I would suggest another four points to look at the experience from a beyond-thingness perspective.

Firstly, we have noticed some participants expressed other **unexpected sense data** through their viewing in the gallery space. For example, two participants mentioned they smelled something between the first and the middle exhibition room. The unexpected sense data of space could be considered as an important part of the exhibition experience. In some participants response in the fieldwork, the sense data may include multi-sensational impressions of the space, and also may include unexpected distractions where they could perceive in the space. Through my observation, some cases showed the audiences are capable to perceive much more than the artworks. The evaluation of unexpected sense data will not be expanded here. However, I would question to what extent curators and artists allow the uncertainties to emerge in the space, and how much unexpected sensations offering to the viewers should take into consideration while understanding such experience.

Secondly, I would highlight the **atmosphere** in the exhibition space. Referring to the participants descriptions on atmosphere in 4.2.2.a, the sound effects of artworks and the lighting could be some of the essential features in atmosphere setting in the space. The nonphysical form of sensory material from some artworks may spread and occupy the space. Also, based on the participants' response, their feelings (such as 'calm', 'atmospheric' etc.) of the space started even before they interacted with any artworks, and this perception of atmosphere was there during the entire visiting process. Participants were able to process it through their reactions or felt moods (Tye, 2021, p.2), even it was difficult for them to verbally describe them. They used analogies to demonstrate their feelings in the space. These ineffable proprieties they perceived in the space could also be approached as 'qualia' (Tye, 2021, p.2) in the sensory experiences. Such feelings of space could potentially contribute to the experience in an exhibition. Therefore, I believe the atmosphere could be another perspective for us to approach the art object experience.

Thirdly, I would bring up the **social interactions** in the exhibition space. As many participants talked in the audio recorder (for example, some of them used pronouns as they were talking to me, the researcher, while many talked to the invigilators about their thoughts and reflections around artworks), we could notice the social interaction role of art exhibition. My hypothesis was that people are generally uncomfortable when talking about art, but I suggest it might be caused by various complex circumstances. Referring to the after-interview with P#2 and #3, they mentioned such discomfort was caused by: the limitation of verbal language (an intercultural issue that language is a barrier); the power in the artist–audience relation (they did not want to misunderstand

the artists' 'correct answer'); a fear of being judged by other people (they did not want to speak in gallery space and disturb other audiences); and an internal, personal, and quiet preference for exhibition visiting. On the other hand, some commercial galleries put effort in creating a platform for open conversations about artworks or art in general during the pandemic. Such discoveries may raise up questions such as: who could the viewers talk to and how? And where could the viewers share their ideas and reflections around the artworks? However, regarding the understanding of these subjective experiences, I think the social interactions with other people were presented and could be a necessary part to look at in different exhibition examples.

And lastly, referring to 4.2.3.c, we uncovered that the gallery space has a **potential code** for people's behaviour. Through the direct response and after reflection, some participants expressed that they felt uncomfortable when they were in the exhibition space. This tension to some extent limited their behaviours and decisions, which may be caused by the space itself and other people in the space. I would suggest this tension would restrict people's perceiving experience, so it need to be discussed. For example, through the transcript, we have noticed that, of the *Artwork 4.*, the vitrines and *Artwork 2.*, the audio reading poem in the fieldwork exhibition has the least comments through all the participants. The invigilators' seat was just next to the *Artwork 4.* and *2.* In comparison, participants spent more time when they were alone in the screening room. When P#2 was watching the video installation *Artwork 7.*, they described they were distracted while someone came in, and they hesitated whether to leave. This example suggests some people may feel uncomfortable while they're close to other people. This emotional tension might restrict people's behaviour and decision-making against their first instinct or intention while interacting with artworks.

In summary, combining with the discoveries in the fieldwork, I suggested four points where we may uncover exhibition experience from the beyond-thingness perspective: 1. unexpected sense data; 2. atmosphere; 3. social interactions and 4. potential gallery behavioural principle.

4.3.3 Framework summary

Through the articulation in this section, we have developed eight evaluating points as a framework, which were situated from the thing and thing-related, and the beyond-thingness lens. The thing and thing-related perspective includes the discussion around the interaction with art objects; artist–audience relation; references and connections; and the freedom for decision-making. Furthermore, the beyond-thingness perspective engages in the analysis on unexpected sense data; atmosphere; social interactions; and potential gallery behavioural principle.

This experiential framework based on the real subjective experience of the physical exhibition fieldwork could be used as potential discussion categories to visually review and reflect on online exhibition examples in the next chapter.

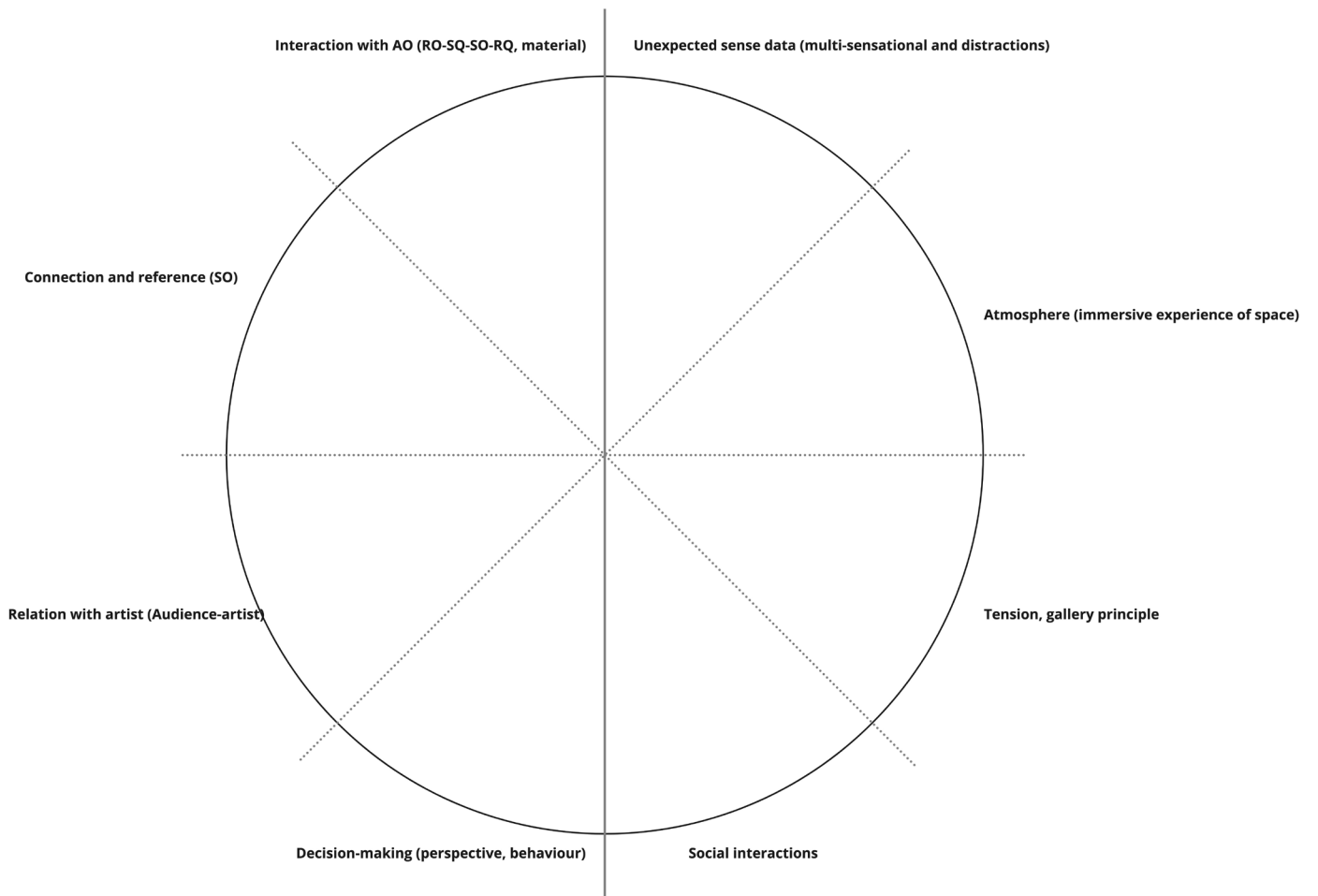


Figure 31, Experiential Framework Based on Physical Exhibition Experience, (Author owned, 2023)

Chapter 5.

DISCUSSION II: DTA ANALYSIS

In the previous chapter, we analysed and built up an understanding of the physical exhibition experience through the fieldwork based on Mhairi Killin's 'On Sonorous Seas' at GSA Reid Gallery. We attempted to develop an experiential framework for the general artworks' interpretation in a physical exhibition setting. In this chapter, we will reflect on some online exhibition examples using this framework and look for potential discoveries and insights on digitally transformed artworks.

During the pandemic in 2020, many examples of online exhibitions took place through various platforms. This phenomenon continued in many instances even when visiting restrictions to physical venues were lifted. Three mediums of online exhibitions will be discussed and analysed in this chapter: virtual exhibition tour videos, 3D showrooms based on the actual physical venue by implementing XR technologies, and webpage-based online exhibitions. On these three platforms, displayed artworks, including paintings, sculptures, moving images, photography, were transformed into digital formats using different techniques. These examples will be discussed under the experiential framework.

5.1 Virtual exhibition tour video, taking the Royal Academy of Arts, "Video: 'Léon Spilliaert' - virtual exhibition tour" as an example

5.1.1 introduction and description

The video tour for Léon Spilliaert's exhibition was presented in a video frame on a webpage created by Tiffany Greenoak and published in March 2020. Apart from the video, there was extra text about the artist's background and overall exhibited information on this webpage. The virtual tour video was 22'30" long and walked through artworks following a designated route. The exhibition displayed 80 pieces of painting by various materials on paper. There was background music playing along with the image, but there was no gallery ambient sound in the video. Text information printed on the wall was presented starting from an overview of the whole text, then slowly moving from up to down for audiences to read through. Similarly, the presentation of artworks started from an overlook of each space, then individually showing each painting. Some of the detailed views of paintings were displayed in the video. Paintings were presented in non-direct viewing angles in the video, and footage contained digital zoom in and out to show more details. Artworks' information was presented in separate subtitles over the image. In this video tour, most of the painting frames were cropped. Artists' drawings in sketchbooks were shown in the format of pictures and slides.

5.1.2 Thing and thing-related perspective

We may highlight some discoveries from this showcase through a thing and thing-related lens. Firstly, by observing the digitalised presentation of paintings in this virtual tour, I would suggest, mostly, that paintings were presented as flat moving images. The depth and traces of artworks were challenging to perceive. Instead, the blurry and pixels of digital videos can be noticed. Still paintings were digitally presented as recorded video, where people can recognise the dynamic image flashing when showing lower brightness detail of the content. Also, due to the frame rate, there were significant pauses throughout the video (Fig.32).

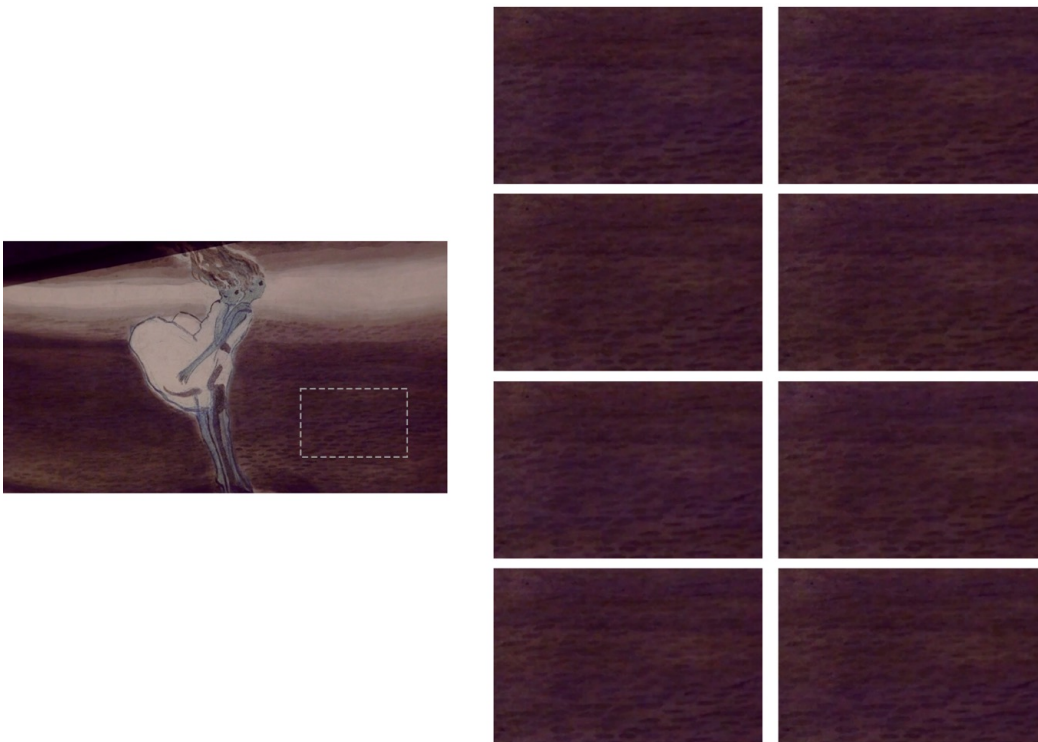


Figure 32, Dynamic Painting Details Presented in Eight Frames in 'Léon Spilliaert' - Virtual Exhibition Tour

Secondly, the camera angles and telephoto focuses showed disadvantages in the simulation of viewing from human eyes. The camera angles may be under consideration to hide the cameraperson through frame reflection. Also, most of the painting frames were cropped by the video frame. These visual appearances might cause an unfamiliar sensation comparing a spontaneous physical experience in artworks (Fig.33–34).

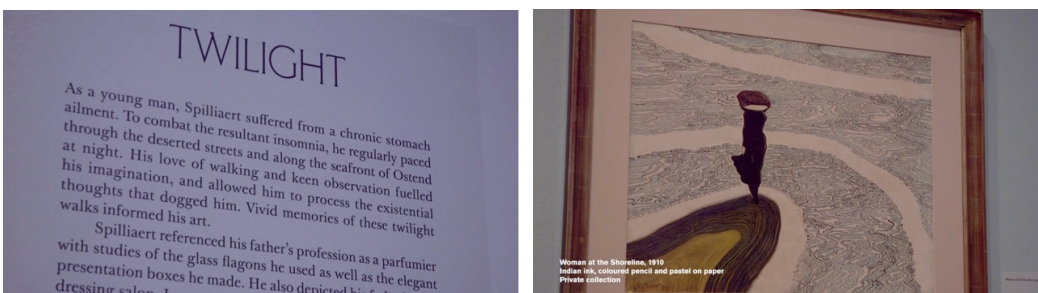


Figure 33–34, Viewing Angle and Camera Focus in 'Léon Spilliaert' - Virtual Exhibition Tour

I reflected on my experience with these digitalised paintings on the video tour. I got an overall image of the exhibition and the impression of displayed artworks by trying to restore the original paintings and what happened in the physical space. However, I would

suggest a passive interaction and indirect approach to the artworks through the curators and videographers. In the video tour, different paintings were 'presented' on the screen. The audiences just needed to be still, watch, read and listen to what was presented to them. This indirect relation with artworks and the reduction of 'approach' made it slightly complicated to the interpretation process. By observing my body movement while watching the video, I noticed I moved forward to capture more details or backward to get an overall view. Although the digital zoom and camera movement mimicked a walking body movement, my spontaneous intention was somewhat limited. Each painting was presented for around 5 seconds. The short presentation made it challenging to interpret and make connections among artworks. I captured that I noticed the appearances of artworks (SQ), and I can remember some of them (SO), but I rarely intellectually look for meanings (RQ) through visual appearances. I will further discuss this interpretation of digital transformations in 5.4.1.

5.1.3 Beyond-thingness perspective

I observed some unexpected visual data through the video tour experience, which is very much related to the reflection over the painting frame and glazing. Firstly, I noticed the reflection of other audiences walking by and sitting down in the video, which might offer a sense that I was not 'in' the space alone. And secondly, this reflection over the painting frame in the video, together with the reflection on my laptop screen, created interesting confusion. This multi-dimensional reflection in and on the video frame raised some unexpected sensations over the exhibition tour.

There was the limited atmosphere I could feel through the virtual tour. I could partly get the immersive experience of the space through the background music, space lighting and different colour of walls. However, when the music was changed, it could distract the immersive feeling of space and reminded me of the video medium. Decision-making and emotional tension from gallery were not observed. Instead, I could feel my reaction was based on the actual experience space that I presented myself in. And lastly, this virtual exhibition showcase did not provide any platform for social interaction with other people.

5.1.4 Summary

Through my experience on this virtual tour of Léon Spilliaert's exhibition, I will recap and highlight some of my discoveries on the virtual video tour under the experiential framework. Firstly, there is a problem with painting documentation through digital images and videos. The flatness and dynamics of digital images may simplify and also perplex our perception of paintings. Secondly, the camera viewing perspectives, angles and focuses may create barriers in setting a 'direct' relation with artworks. And lastly, here, the multi-dimensional medium (video and device frame) may emerge layered confusion in the exhibition experience (Fig.35).

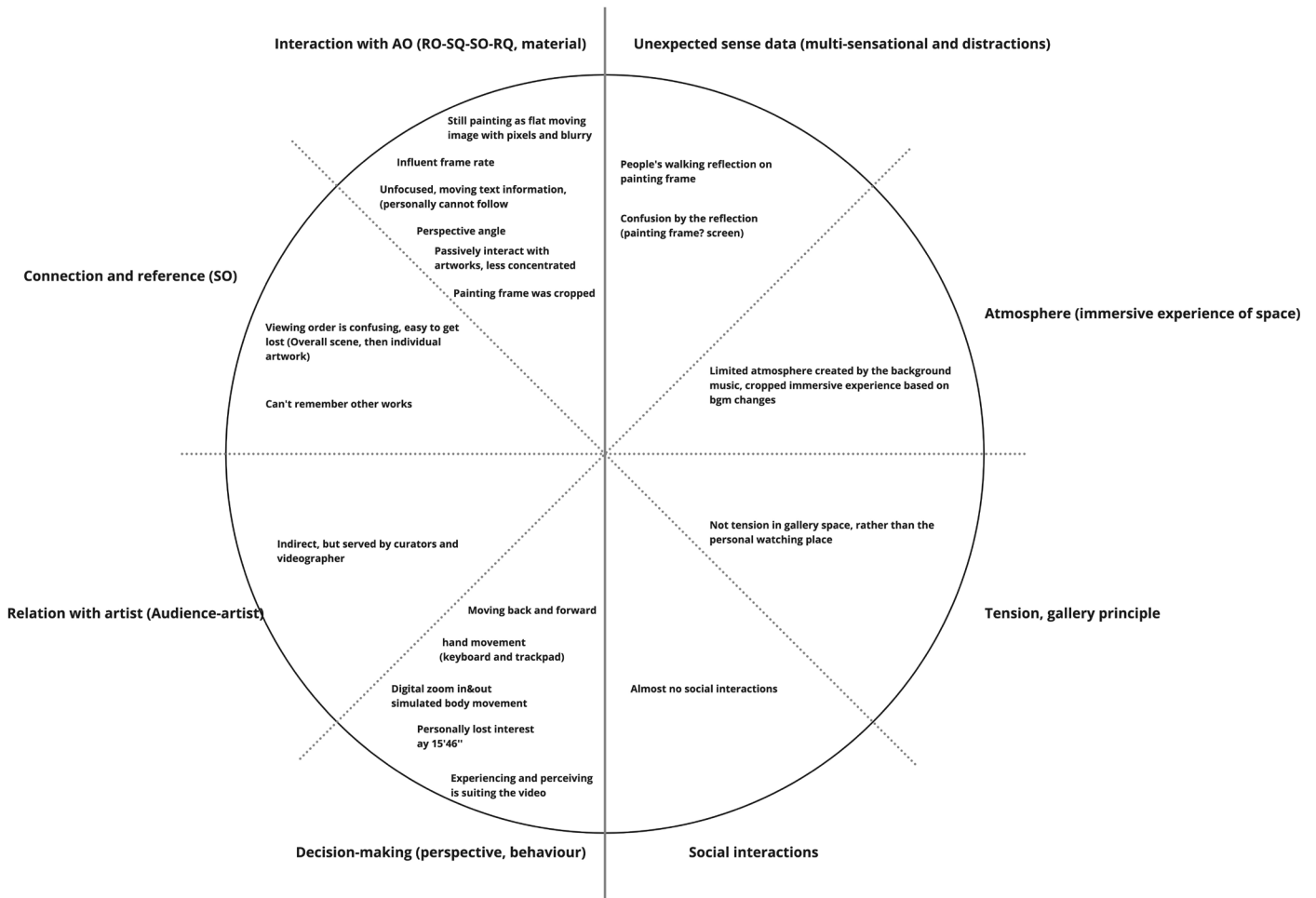


Figure 35, Mapping- "Video: 'Léon Spilliaert' - Virtual Exhibition Tour", (Author owned, 2023)

5.2 3D showroom exhibition, taking the Royal Academy of Arts, 'Ai Weiwei 360' as an example

5.2.1 Introduction and description

'Ai Weiwei 360' was a 3D online exhibition curated by the RCA capturing a physical exhibition in 2015. The online show was first published in 2016 and exhibited many artworks in various formats, such as installations, sculptures, photography, videos. The online exhibition offered 'navigable 360° imagery, videos and audio channels'. People could access the virtual tour through a webpage on a 'desktop, tablet or smartphone' (Royal Academy of Arts, 2020), starting with a video introduction and then the main user interface outside the gallery. There were switching buttons for controlling background music, ambient gallery sound and audio descriptions. This online exhibition contained 360° imagery captured at different points in the gallery space, which also linked artwork videos together through the icons on art pieces. Audiences could look at artworks in the panoramic view from designated points and in descriptive videos. Explanatory videos took the format of documentaries, where the artist and curators talked about the 'meanings, context and techniques', with the imagery of overall and detailed views on artworks. Text information was displayed as subtitles on screen by clicking a button on the printed wall. Also, there was a floor plan with artwork icons for navigating the route and position.

5.2.2 Thing and thing-related perspective

Compared to the video tour in 5.1, I would suggest there was more concentration on experiencing artworks in this exhibition. This may be due to the diverse format of materials covered in this online showcase. For installations and other three-dimensional artworks, the panoramic imagery combined with the descriptive videos basically satisfied my way of perceiving. The presentation format allowed viewers to look around and digitally zoom in and out to look at the details of artworks. However, several points relating to such a form of digital transformation image need to be highlighted. Firstly, in this case, a wide camera perspective was used in capturing the physical scene. The viewing angle involved more content, but slightly unusual from our ways of seeing. For example, looking at a larger scale or a 'closer' piece of work, there may be a distorted visual effect (Fig.36–37).

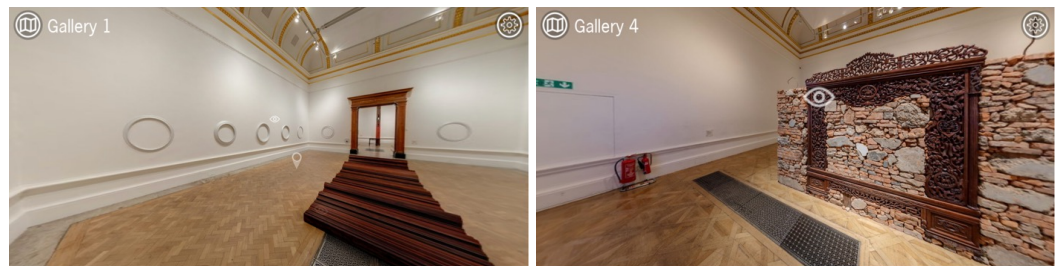


Figure 36–37, The Wide Camera Angle in 'Ai Weiwei 360'

Secondly, the interface allowed viewers to 'look around' instead of looking at the same work from different angles. It offered limited points to observe the space, rather than to observe the same artworks. When we try to zoom in and look at the detail of a piece, we could notice we are zooming and moving on the same flat image. The intention of looking at the same thing from a different angle was mistakenly mixed with looking around. Here I would like to combine this contradictory point with physical body movement, which would add another layer of complexity. Similar to the video tour, I captured that I moved back and forward, but more importantly, my hand movement on the keyboard and trackpad was controlling where I went, as well as how and what I saw. Therefore, I suggest this unfamiliar hand movement unified perception may influence our relation with these 3D captured artworks.

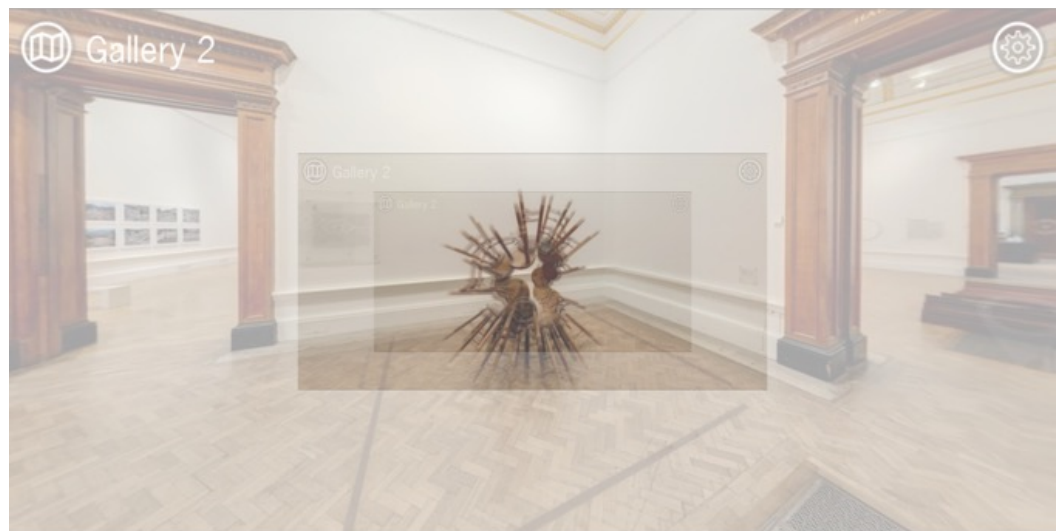


Figure 38, Zoom in and Move Around Comparison in the Panoramic Image in 'Ai Weiwei 360'

Thirdly, through my experience on this online exhibition, I realised that art objects were 'faded' into the exhibition environment in the panoramic images. I suggest that digitally transforming an exhibition in this way may benefit more by replicating the space instead of objects. Viewers can have a better sense of the showroom instead of interacting with individual artworks.

Next, I would like to talk about the viewer–artist relation. Descriptive videos made up for the limitation from the 360° images, where I could have a better sense of the appearance of the artworks. And similar to the podcasts in the fieldwork, the artist's virtual presence helped build up the audience–artist relation, since they were explaining themselves to me. However, a very personal reflection was that when I intended to look at the details of artworks through the videos, the 'correct answers' were 'served' simultaneously. Personal interpretation of artworks (intellectually looking for RQ) was passively prevented and cancelled. In my opinion, it was difficult to evaluate a more beneficial way to arrange and provide additional materials around the presented artworks. However, the straightforward meaning offered by the artist and curators 'served' me with a better understanding of presented artworks and also with making connections among them.

5.2.3 Beyond-thingness perspective

Through my experience with the 360° online exhibition, I would emphasise the atmosphere here. As mentioned in the previous section, the panoramic images benefited more in representing the space. However, because of the wide and extra deep camera perspectives, it was hard to evaluate my sensation of the space. Apart from the visuals, background music and ambient sound could be chosen. The sound helped simulate a feeling that I was 'in' the space, but it was not synced with the visual 'movement' in the virtual space. There were limited unexpected sense data and social interactions in this online exhibition example. Like the previous virtual video tour, I did not capture any tension caused by potential gallery principles. It was more related to the presentation space where I experienced the online exhibition.

5.2.4 Summary

By analysing the 360° online exhibition example, we uncovered several features and discoveries in this specific format of artwork digitalisation, where some of them benefited or limited the interaction and experience. For example, firstly, we've noticed panoramic imagery had more advantages in simulating space, but the wide camera perspective failed to mimic the real viewing experience. Secondly, we uncovered the unfamiliar perceiving approach, which was mainly unified by hand movement. Thirdly, we questioned how much we need to involve in the presence of artists and how much additional information should be provided in the individual interpretation. And finally, we provided some reflections on the space sensation in the 360° showroom.

From my perspective and combined with the insights given by the *Quadruple Object*, these discoveries raised some questions related to what we perceive in the virtual exhibition space (Fig.39). For example, how much do we need to see/know in order to experience an artwork? Should we develop individual interpretation confidence in art communication? And how could we improve the quality of digitalised art objects? The digital transformation was based on the real art object. In other words, how much error happened between the original piece (Real Object 1) and the artwork in the online context (Real Object 2)? I think the more difference emerges in this transformation process, the more difficulty there will be for audiences to restore the meanings of the original artwork (Real Quality 1). Further discussion around these questions will be continued in section (5.4).

Ai Weiwei 360

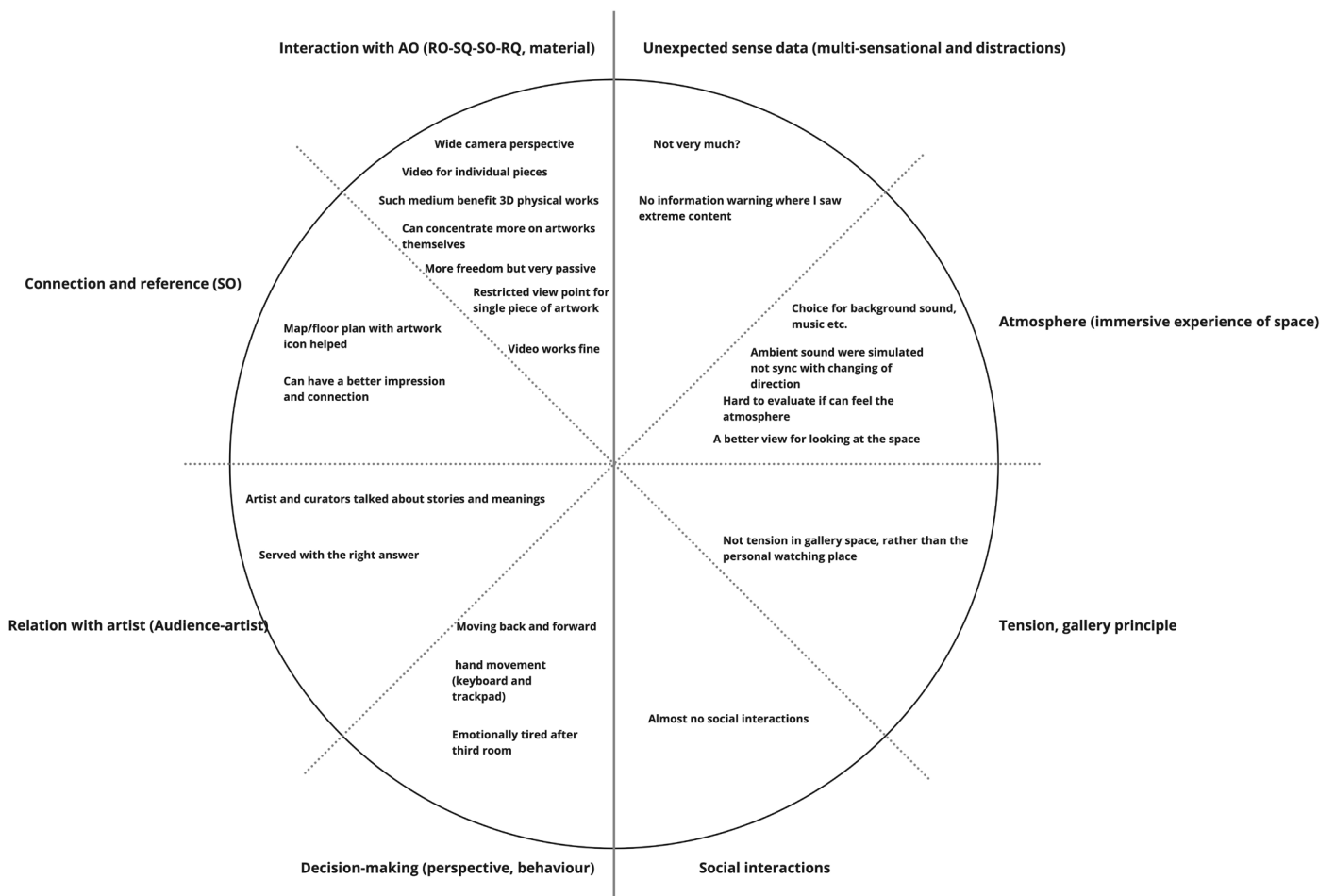


Figure 39, Mapping- 'Ai Weiwei 360', (Author owned, 2023)

5.3 Webpage online exhibition, taking LUX, 'Love in a Cold Climate, Michael Curran (2002)' as an example

5.3.1 Introduction and description

The final example is the webpage-based online exhibition about Michael Curran's moving image work curated by Lux. This exhibition mainly presented the moving image work 'Love in a Cold Climate'. It is a 57'35" film made by the artist using a camcorder. The artwork was previously exhibited at Lux Centre in 2002. There were various material formats on this dark colour background webpage, including text, film (the main work),

interview recording and image. There were also links over text for additional materials on other web pages. The website described the film as 'highly personal meditation', and I perceived the work as very emotional. This multi-layered, complex film was presented as a video on the webpage. This complexity was fascinating, and I will discuss it in the following sections.

5.3.2 Thing and thing-related perspective

As mentioned in the previous introduction, there was a multi-layered complexity of materiality in this film work [It is confusing that some resources define the work as coloured video (Curran, 2002) while others call it a film (Lux, 2022)]. Firstly, imagery-wise, this film piece was shot over a camcorder. Although it is unknown whether the artist used digital techniques to edit the film, it was presented in digital video format for access at the end, where this is the first layer of format transformation. And secondly, there were many scenes in the film where the artist shot television weather forecasts on television, which added another layer of complexity to the presented video. When audiences watch these example clips, they are watching 'the video in the film in the video'. Similarly, there audio was recorded over phones and voice mail. Also, people were talking in different languages, and which were simultaneously translated into English. In this case, viewers were listening to the speaking 'in Russian in English through telephone in the film in the video'. I would suggest the digital transformation of video works can have fewer material limitations compared to other art formats, but the video transformation might create some extra complexity.



Figure 40–42, The Camera Shot on Television Image in 'Love in a Cold Climate, Michael Curran (2002)'

Secondly, I would suggest the camera language created a subtle dynamic relation between the audience and the artist. There were many scenes where the artist shot the interviewee from a first-person perspective, where people could view from the artist's eyes. Audiences were in the conversation with the artist without engaging in it, while in other scenes, the camera was positioned in a third-person perspective to observe the event. Through my experience watching the film, I captured that I was unconsciously looking for the artist's position and my position through the switches.



Figure 43–45, The Dynamic Artist–Audience Relation Created by Filming Perspectives in 'Love in a Cold Climate, Michael Curran (2002)'

Also, in the film, I could capture repeated visual and sound language within the film and build up connections, making sense of clips during the entire experience. For example, foam-like white particles appeared in two scenes, and I could not understand them at the beginning, but then I identified and understood what that meant in the later scene (Fig.46–48). Similarly, I could remember the voices and accents to identify different people speaking in the film. Moreover, after watching the film, I was able to recognise scenes (SO) and understandings (SQ) and then make connections with other materials (RO) (text description and interview video) in the online exhibition.



Figure 46–48, *The Foam in Several Clips in 'Love in a Cold Climate, Michael Curran (2002)*

Unlike the previous example (3D showroom), the webpage online exhibition offered a linear viewing order from up to down. I captured myself experiencing the display in the order of reading (text), watching (film), rereading (text), listening (interview) and looking (at the image). Also, it allowed me to reflect and build up meanings by experiencing the artwork myself, and then to get additional information by listening to the artist's interview.

5.3.3 Beyond-thingness perspective

Through my experience of the exhibition, mainly around the film work, I noticed some discoveries from the beyond-thingness perspective. Firstly, I captured myself thinking about other sensations while the artist mentioned 'smell the coldness' in the film. To some extent, the perceived appearances from artworks may lead me to think about and notice other sensations in the physical settings. Secondly, I realised I could see my reflections over the screen, but sometimes I could unconsciously block it out and concentrate on the artwork. Thirdly, regarding the exhibition overall, I could not capture any sensation and impression of space as an exhibition, but I could perceive the sense data from the film itself. For example, I got the emotional reaction of sadness after watching the film and the physical reaction of tears while listening to the artist talk about their story, as 'I'm making a film about love'. In my experience, I was distracted by people in the physical space, and I had to pause the film for a while. However, I had no feeling related to the gallery space experience. Finally, apart from the subtle switching of relation mentioned in 5.3.2, there was a sense that I was positioned in a conversation while watching the film. However, there were no actual social interactions captured during the experience.

5.3.4 Summary

Through experiencing this webpage-based online exhibition, we have uncovered several discoveries within and beyond the artworks themselves (Fig.49). Firstly, there was the multi-layered complexity of materiality while presenting film work digitally, which required extra analysis in interpretation. Secondly, a subtle dynamic relation between artists and viewers could be created by camera language (as where we see from). Thirdly, similar to those mentioned in data analysis, we can capture SO from artworks and make connections. And finally, this web-based example suggested a linear viewing order without space sensations.

Lux, Michael Curran, Love in a Cold Climate

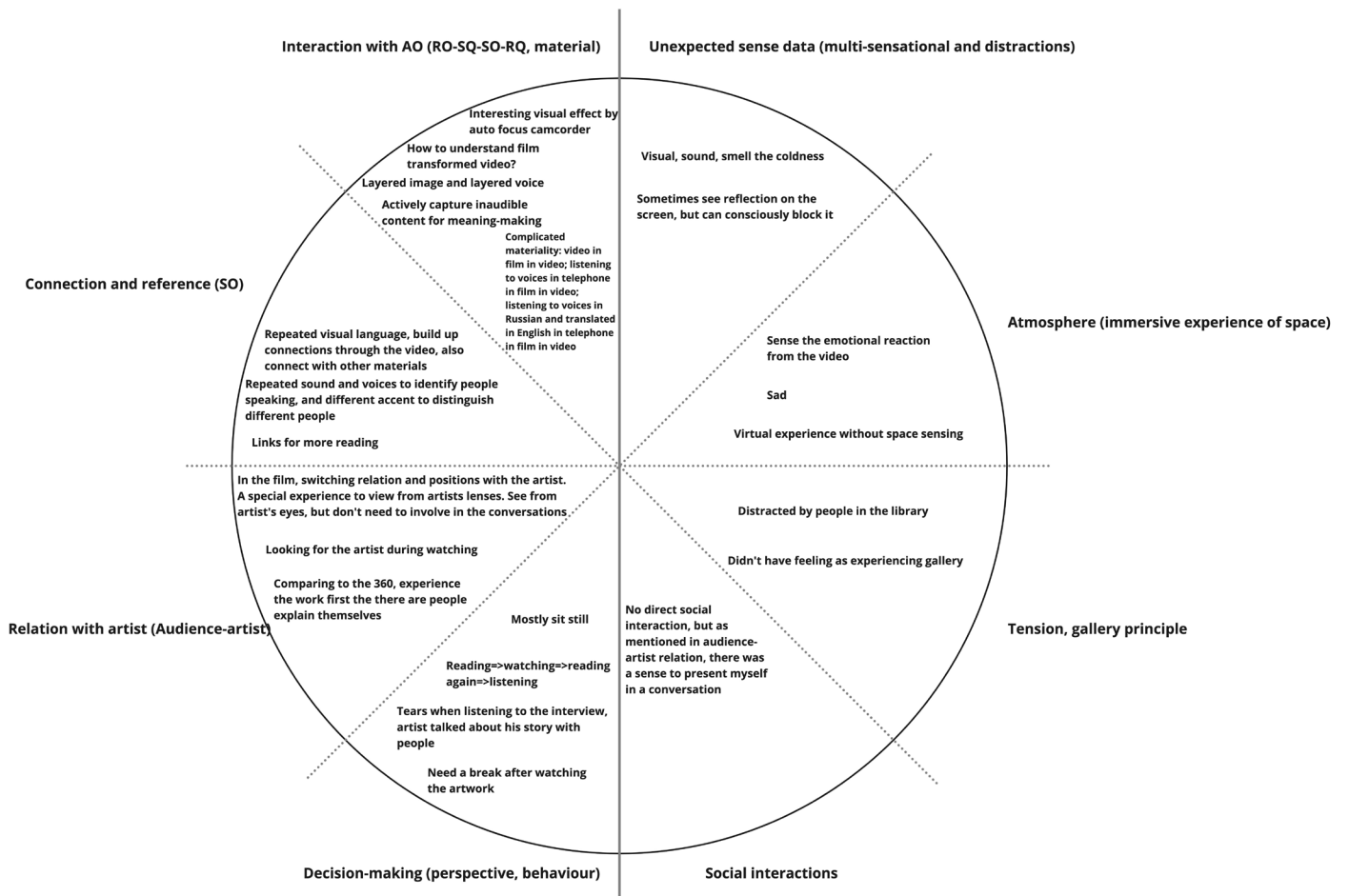


Figure 49, Mapping-'Love in a Cold Climate, Michael Curran (2002)', (Author owned, 2023)

5.4 Reflection and discoveries

5.4.1 What do we 'see'? How do we 'think'? –An 'Object-Oriented' model

Through the discoveries under the experiential framework and comparing the physical and online exhibition examples, I would suggest it matters from what we see and how we see in the digitalising context of artworks. Developing from Harman's New Fourfold and their 'ten possible links' in the *Quadruple Object*, I would suggest a speculative model for DTA, which contains the digital transformation and interpretation around them. Such a model could possibly be used to explain the artwork's digitalisation, and the perceiving and communicating errors that emerged around them.

Firstly, in the literature review (2.2.1), we understood what a real object is. And as Heidegger suggested, 'je diesen' in *What is a Thing* (1967, p.16) about how to identify two different things: where one thing can only exist at a specific time and space, and things being positioned in different time and/or places should be regarded as two different ones. Therefore, original physical artwork and its digital transformation should be considered differently. Since they both exist externally and do not depend on human experience to be themselves, we could probably define them as two real objects under Harman's 'Object-Oriented' system. From here, as an example, we name the original artwork as Real Object 1 and the digital transformation as Real Object 2.

The digital transformation was developed from the original piece. We should then question the relation between the two. Referring to Harman's articulation, two real objects could either be connected by a sensual object (Harman, 2011a, pp.100–101) or one could withdraw from another (Harman, 2011a, p.115). In this scenario, we're talking about two things in their own rights that did not involve in human interaction with them yet. Then I may suggest Real Object 2 could be withdrawn from Real Object 1.

Next, we could involve our interaction and interpretation of art objects. We are absent from the original art piece (Real Object 1) in the online exhibition context, and we aim to uncover the experience and understanding (Real Quality 1) of Real Object 1. Real object and real quality were connected through 'essence', which it is not accessible to us (Harman, 2011a, p.100). With the restriction of physical artwork (Real Object 1) on an online platform, we can only experience it through digital transformation (Real Object 2) instead. Therefore, we shall talk about the upper layer of this model, and how we interact with Real Object 2. Starting from Harman's theory and his reflection on Heidegger's tool-analysis, real object was translated into sensual presence on surface for access and interactions (Harman, 2011a, p.50). From here, we could perceive sensual quality (/qualities) from real object. And similar to the demonstrations in 4.2.1.c and 5.3.2, as we interact with real objects, we could capture the shifting sensual qualities and unify them as a perceived sensual object (Harman, 2011a, p.33). This perceived sensual object of digital transformation (Sensual Object 2) exists inside the relation between the real thing and ourselves (Real Object 2) (Harman, 2011a, pp.49–50; 115–116).

As our aim is to approach the meanings of original artwork (Real Quality 1), this will involve two extra processes: how could we restore Sensual Object 2 to Sensual Object 1 and Sensual Quality 2 to Sensual Quality 1? We are now moving from the upper layer to the lower in the model. These relations between two different sensual objects and different sensual qualities were explained by Harman in his *Three Radiations and Three Junctions*, where sensual qualities were connected through emanation through the same object of experience, while sensual objects were through continuity (Harman, 2011a, pp.114–115; Harman, 2009). As discussed above, a digital transformation and the original art piece are two different things. Therefore, this restoration process will have to rely on the sensual object(s). Then finally, we may intellectually approach the meanings, various real features, together with eidetic traits (Harman, 2011a, p.33) of the original piece (Real Object 1) through the indirectly restored Sensual Object 1¹².

To summarise, from the demonstrated model, we could see the digitalisation process mainly engaged in a transformation that Real Object 2 withdrew from Real Object 1. But the experience from digital transformations and interpreting them might need to go through many more procedures: experiencing the digital transformation (Real Object 2–Sensual Quality 2, Sensual Quality 2–Sensual Object 2), restoring experience and sense data (Sensual Object 2–Sensual Object 1), and intellectually articulating the meanings (Sensual Quality 1–Sensual Object 1, Sensual Object 1–Real Quality 1).

From the model and these complicated processes, I would suggest two points that might create errors for viewers' experience on DTA instead of original pieces: The first error may occur during the transformation process as 'what do we see?' What is the quality of those digital transformations? In other words, how many differences may be identifiable by viewers between DTA and physical artworks? These may be featured material-wise, mainly about the artworks and digital materials themselves. For example, we discussed the blur and flashing visual confusion observed in the painting digitalisation in 5.1.2. While the second error may emerge during the experiencing, restoring and interpreting process as 'how do we think?' This may require curators to consider how viewers could access and experience those digital transformations, and how much affordance audiences are capable of under various digital mediums and platforms. For example, we covered the medium confusion and viewing restrictions in 5.2.2.

12. I partially agree with Harman's rejection of Husserl, that he thought that even through the intellect cannot grasp real qualities (Harman, 2019, p.23). However, I think there should be some space for individual interpretations that situate between sensual qualities (perceived qualities based on experience) and real qualities (the eidetic qualities that make a thing as itself).

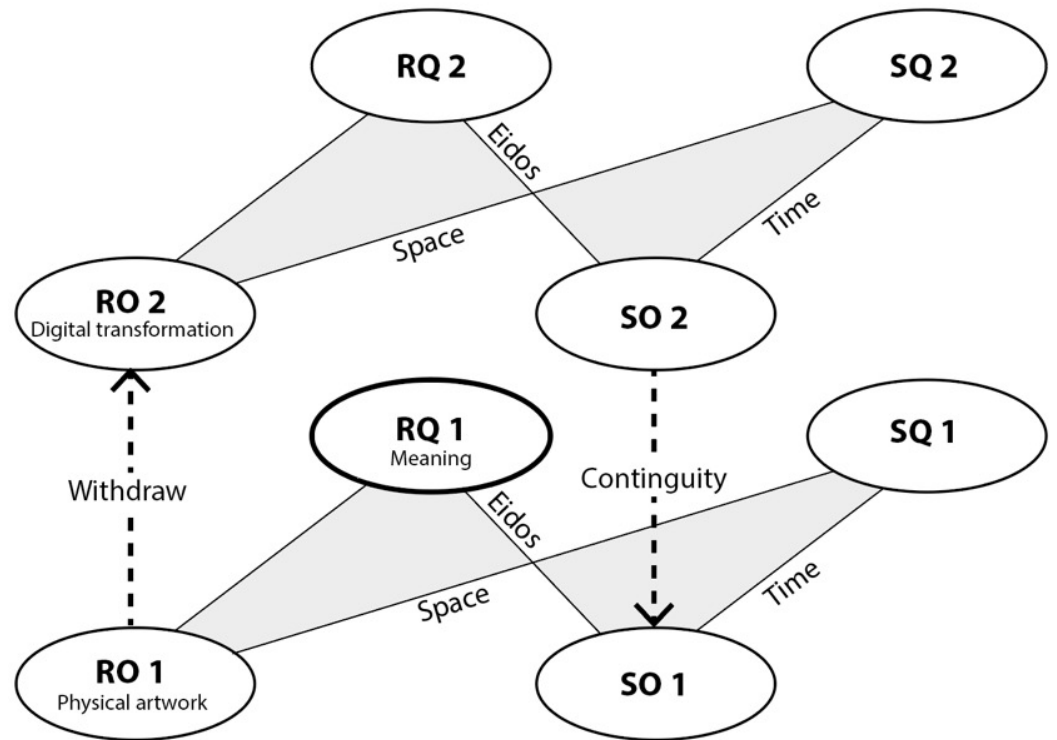


Figure 50, The 'Object-Oriented' Model on DTA Analysis, (Author owned, 2023)

5.4.2 How do we 'see'? Where do we 'see' from?

Apart from the explanation of the model created for uncovering the problems around DTA, some other discoveries are suggested from the fieldwork and reflections on online exhibition materials. Echoing the previous section, I think it matters not only by what we 'see' and how we 'think', but also by how we 'see' and where we 'see' from. These questions may vary our relations with art objects.

We have re-evaluated online exhibition examples and discovered several issues caused by camera and visual image effects, for example, the telephoto camera focus and filming angles in 5.1.2; the wide camera visual effect from creating an unfamiliar experience in the panoramic showroom in 5.2.2; and the switch of camera-language changing audience–artist relation in 5.3.2. Such examples, to some extent, failed to mimic the ways of seeing, which may complexify the viewing angles and set up boundaries for an immersive experience on art objects through these online platforms.

Also, I would like to highlight the user-interface experience here, as the hand movement unifies the viewing actions discussed in 5.2.2. We have noticed we used our fingers to control simulated body movement in the 'online space' in this showcase. For example, we use two fingers to swipe up on the trackpad to 'walk' closer to artworks, which could be controversial to our habit. The changing of user interface on e-readers (from tapping to swiping in order to turn a page) could have suggested the importance of body movement consideration in the interpretation method and medium studies. This study is not focused on the service or interaction design perspective, but I may briefly suggest the potential error that hand movement unifies 'seeing' on online exhibition platforms.

5.4.3 Interpretation confidence under the artist–audience relation

Apart from the reflections on the artworks themselves and the presentation of online exhibitions, there are other discoveries on the interpretation confidence and artist–audience relation, which may arguably be an issue in contemporary art and curatorial practice. Through the fieldwork and after-interviews with some participants and reflecting on my own exhibition viewing experience, I found we could be uncomfortable talking about art. This was suggested to be caused by potential artists' power which may potentially stress individual viewers, and by the 'fear' of being judged on personal interpretations by other people. I hypothesised that part of the art experience could be very personal and private, and we might be unconfident in our voices as art viewers. During the time, we emphasised how artists created art and the impact of their artworks on art history. However, I may suggest artists and researchers could consider the viewers more. To what extent could we care about art viewers' affordance? How much should additional material be provided to help viewers understand the artworks? Did we really care about art viewers' voices and engage them in the 'conversation'? These questions were raised during my fieldwork and reflections in this study. As suggested in my previous study in 'the Layering Model' (Mao, 2021), art includes art creators, artworks, surrounding stakeholders and especially viewers to build up this communication network. Therefore, artists, curators and other stakeholders could consider more on building a less judgemental, less privileged, and open art environment with art viewers.

Chapter 6. CRITICAL REFLECTIONS ON PROJECT STRUCTURE AND METHODOLOGY

Due to the project structure, theoretical perspectives, and methodologies introduced in the previous chapters, the researcher was aware of the complicated theoretical connections in this project. Therefore, this chapter will critically review and further clarify these considerations in three sections: the theoretical considerations in literature review and methodology, physical and online exhibition variation, and the reflections on using 'IPA' in this project.

6.1 Reflections I: theoretical perspectives, considerations, and connections in literature review and methodology

After the project proceeded with the pilot study, fieldwork, fieldwork data analysis and the DTA analysis, the researcher reviewed the project structure and involved theories, which need further clarity for their different roles, connections and rationales. This section will offer supplementary discussions on the literature review and methodology (Fig.51), which included one suspension (highlighted in green dot-line), two perspectives (highlighted in blue line) and three detachments (highlighted in orange dash-lines).

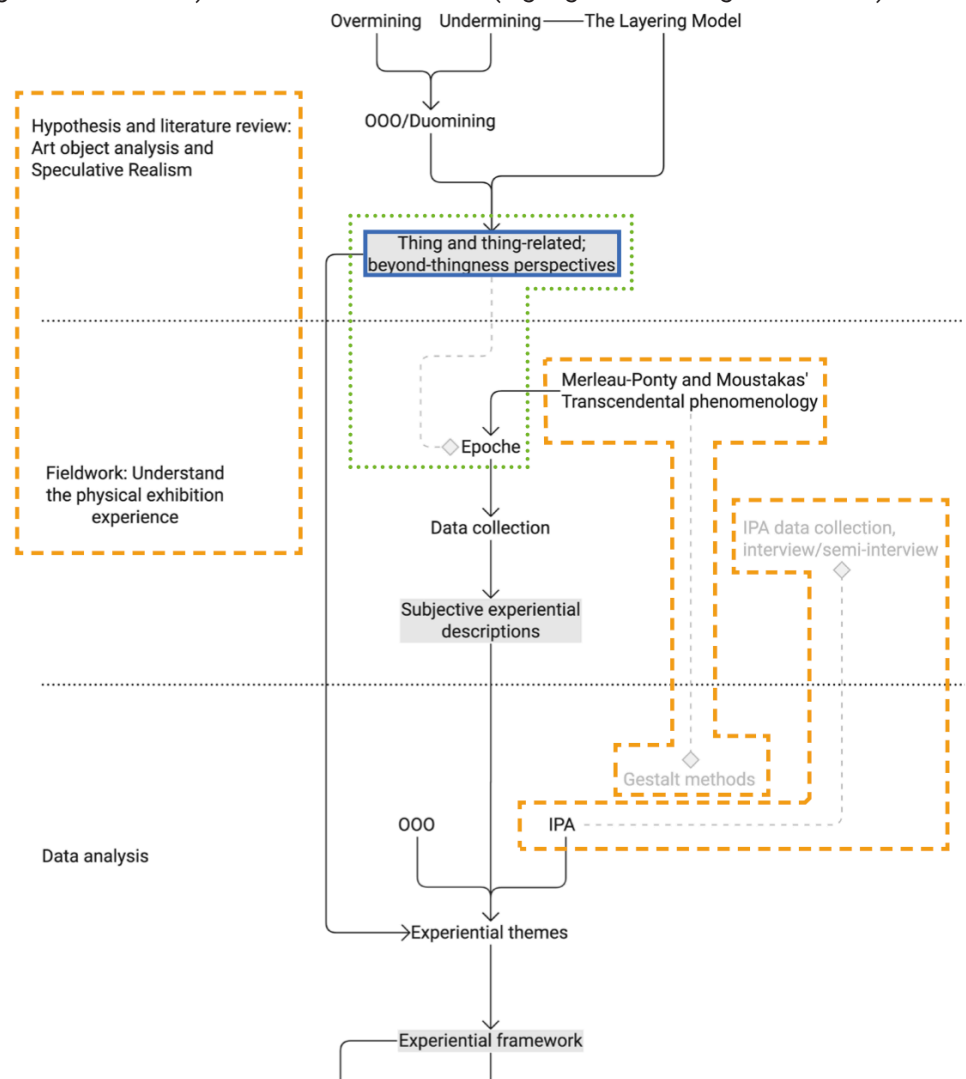


Figure 51, Critical Reflections on Project Structure, Literature Review and Methodology, (Author owned, 2023)

6.1.1 One suspension: speculative realism hypothesis at Epoche

As introduced in the literature review chapter (2.2.3, 2.3, and 2.4), the research scope came from a speculative realism perspective, specifically *Object-Oriented Ontology*. In order to capture more representative experiential patterns from real experience, the researcher introduced and proceeded with the fieldwork to collect and analyse people's interactions with art objects in the physical exhibition settings. In this scenario, one suspension happened at the beginning of the fieldwork as Epoche (3.1.2), where the speculative realism hypothesis was suspended from data collection and interactions with participants. As discussed in 3.1.1, the choice of phenomenological position was aimed at understanding the objectives through human experience, and the implementation of transcendental phenomenology was to deduct the researcher's subjective bias as much as possible.

6.1.2 Two perspectives: the thing and thing-related; and the beyond-thingness perspectives

In the review and critique of the researcher's previous study, 'the Layering Model' (Mao, 2021), the importance of the thingness of object analysis, as well as the acknowledgement of artworks' 'more than a thing' qualities, were uncovered in 2.3. The thing and thing-related perspective indicated those discussions related to the art object themselves, their materiality, and the surrounding human-object relation (4.3.1), while the beyond-thingness perspective took those reflections on the features beyond the things themselves that resided in the art object context (4.3.2). Therefore, the main takeaway from the discussion on 'Object-Oriented Philosophy' (2.2) and the developed version of 'the Layering Model' (Mao, 2021) were the thing and thing-related, and the beyond-thingness perspectives, which were engaged in almost every stage of this project except the fieldwork data collection¹³.

6.1.3 Three detachments; Speculative realism (OOO) and existentialism (phenomenological research), 'IPA' and its data collection, and Merleau-Ponty's transcendental phenomenology and Gestalt methods

There were three methodological detachments in this project, which may seem 'to contradict' each other. Therefore, this section aims to clarify these theories' usage, roles, and the reason for such arrangements.

Firstly, speculative realism (OOO) and existentialism (phenomenological research) were both engaged in this project. These two theoretical perspectives were implemented in different roles and rationales. As briefly mentioned in 6.1.1, *Object-Oriented Ontology* was considered as the overall theoretical perspective and research scope of this project. OOO was closely engaged in several stages of this project, such as partially understanding the fieldwork data, framing the fieldwork experience on physical exhibition (Fig.31), and forming the primary research outcome, the 'Object-Oriented' Model on DTA Analysis (Fig.50). On the contrary, phenomenology was involved in fieldwork design, data collection and general fieldwork data analysis. As discussed in

13. The fieldwork aimed to collect a more comprehensive range of subjective phenomenon descriptions (3.2) for later data analysis and experience framing. As demonstrated in 6.1.1, the researcher undertook the transcendental phenomenological reduction in the fieldwork data collection to acknowledge and suspend the researcher's hypothesis. Therefore, the speculative realism reflections and two perspectives were engaged in all the steps (Fig.2) except the fieldwork.

2.2.3 and footnote 5, the main conflict of these two theoretical genres arguably was whether there were fundamental objectives beyond human perception, but concluded with the similar result of an incoherent, unthinkable (Cole, 2015), and noncertain world (Marion, 2015, p.206). Moreover, when Smith (2021) introduced the key features and components of 'IPA', he also expressed the acknowledgement of "at its best", where the limitation of the accessibility of the 'real experience'. In this project, the involvement of phenomenology was not aimed at formalising a counter-argument towards speculative realism about whether there is an objective world, or if the thing we perceived is the thing in itself, but is to help generate an understanding of our experience on those art objects. In summary, the involvement of *OOO* allowed for explaining those unapproachable 'real experiences' by sensual objects and sensual qualities. At the same time, the engagement of phenomenology gathered more representative data and made the discussion less subjective. Therefore, such detachment and combination of speculative realism and existentialism will benefit this project by critically meeting these two theoretical perspectives halfway.

The second detachment in this project was 'IPA' and its data collection methods. Fieldwork data collection was switched with transcendental phenomenology due to the awareness of the researcher's bias and the value of subjective experience from participants. The detailed discussion was already demonstrated in 3.1.1, 3.1.2, and 3.3.1.

The final detachment happened during the fieldwork data analysis, which was related to Merleau-Ponty's transcendental phenomenology and its Gestalt methods. Merleau-Ponty's transcendental phenomenology forbids any further interpretation and explanation of subjective descriptions. Therefore, the Gestalt methods were changed to 'IPA' in data analysis. Detailed considerations and rationales were discussed in 3.3.1.

6.1.4 Reflection I summary: the 'subtle connection' between the literature review and the methodology chapters

There was an overlapping and close connection between the literature review and the methodology chapter. Such a subtle relationship between the two chapters was because the approaches of both physical art objects and DTA analysis came from the metaphysical system, which discussed the ideas of objects, things, their qualities, and relations. These discussions were related to the theoretical perspective of speculative realism and the methodological approaches of phenomenological research. As suggested in 6.1.3, the researcher would consider that speculative realism and phenomenology in this project took up different positions and anticipate diverse phasic objectives for accomplishing the research outcome.

6.2 Reflections II: physical and online exhibitions selecting considerations in this project

Apart from the discussions on physical and online exhibitions selection criteria (3.2.3 and 3.4.1), the researcher was aware of those variations in how the online and physical exhibitions were carried out. As introduced in 3.2, the fieldwork undertook audio recording to collect the participants' responses in the physical exhibition setting. In comparison, the researcher's evaluation of online exhibition materials applied note-taking methods to capture their response (3.4.2). This variation in data collection and sampling methods were due to the following considerations.

The aim of the fieldwork data collection and analysing the fieldwork data was to openly generate an experiential framework and suggest the materiality of physical art objects. Therefore, the researcher offered two methods of semi-structured interview, as well as audio-recording, to collect fieldwork data. However, the re-evaluations and DTA analysis were aimed at understanding art viewers' experience with DTA in relation to the Experiential Framework Based on Physical Exhibition Experience (Fig.31). Therefore, visual ethnography, as well as its visual methods (note-taking and mapping) (3.4.2), was considered as more suitable approaches to proceed these DTA discussions. Such differences in collection methods, data variations (fieldwork data and online material re-evaluation data), and analysis methods (based on the takeaways from the fieldwork framework), to some extent, offered some observations on DTA, which were presented in 5.4.

6.3 Reflections III: challenges of using 'IPA'

Reviewing the process of this research project, the researcher particularly reflected on their experience in using the 'IPA' research method. As it was the first time that the researcher used the 'IPA' research method in this M.Res project, this section will mainly conclude the following two reflections based on evaluating this research experience.

Firstly, it was challenging to implement such a heavy research method within the limited time frame and research portion in this Master of Research programme. The researcher was challenged as to what level of depth and detail that the data should potentially be analysed as a satisfactory understanding. Therefore, the researcher will possibly employ the 'IPA' method in longer-term research projects in the future.

Secondly, the researcher observed a strong sense of uncertainty and uncomfortableness when analysing the fieldwork data from participants. Although the researcher proceeded with transcendental phenomenological reduction (3.1.1 and 3.1.2), it was still challenging to interpret and generate experiential themes from participants' transcripts. The researcher captured the difficulties in balancing sense-making (producing judgements or making good use of the data) and being 'non-judgemental'. The researcher also felt uncomfortable holding those given 'authority' to explain other

people's statements. In this project, the researcher tried to partially share individual participants' fieldwork data analysis outcomes and the experiential framework (4.3) with their owners. This verified whether those discussions were accurate and suitable to their experience.

14. Such observation was discussed in 6.1.3, especially since the researcher held an overall speculative realism perspective in this project. This passiveness of inaccessibility was like the discussion about the real object and real quality (2.2.1 and 5.4.1). The researcher could never fully access the real experience (6.1.3), and even the first person themselves could not. Therefore, such efforts and attempts towards the limited meaning accessibility raised that passiveness while understanding the data.

Looking back on this experience of using 'IPA' in this project, the researcher would suggest that such a research method needs a certain amount of practice. Through the researcher's understanding, 'IPA' requires its users to be 'objective' as their best from/ in a subjective 'mind box', and closely engage with the collected data from a certain balanced ethical distance. The researcher's 'IPA' experience also suggested that using 'IPA' might also encounter a sense of passiveness in interacting with the data because of the restricted access to the real experience¹⁴.

Chapter 7.

CONCLUSION AND RECOMMENDATIONS

In this Chapter, I will conclude this thesis by recapping the research enquiries and discoveries through this study on digitally transformed artworks. I will then demonstrate the limitations of this research and provide recommendations for similar studies. Finally, the conclusion chapter will end with suggestions on potential future research questions that emerged from this research project journey.

7.1 Conclusion

The research questions in this project started from the digital exhibition phenomenon during and after the pandemic of Covid-19. The research project openly questioned the impact of digitalisation on non-digital artworks and explored the potential insights into future curatorial practice in the digital context. This research aimed to uncover and re-understand the artworks on digital exhibiting platforms, as physical art objects have been digitally documented, displayed, and to be accessed online. The project also aims to suggest object analysis methods for digitally transformed artworks. Therefore, the research question was broken down into three sub-questions: 1. understand and frame the physical exhibition experience; 2. uncover artworks in online exhibitions experience by using the experiential framework; and 3. articulate and reflect the digitally transformed artworks in future art and curatorial practice.

7.1.1 Understand and frame the physical exhibition experience

Apart from the theoretical considerations, the project started with the fieldwork, which aimed to understand the phenomenological experience of artworks in a physical exhibition setting. Therefore, under Merleau-Ponty and Moustakas' transcendental phenomenology research methodology, I collected first-person experience descriptions from four participants on a selected physical exhibition, 'On Sonorous Seas', Mhairi Killin, at GSA Reid gallery. The raw data then were analysed under the 'IPA' combined with the speculative realism ('Object-Oriented Philosophy') theoretical perspectives, where I suggested sixteen experiential themes in three aspects. The first aspect is from an 'Object-Oriented' lens, where I demonstrated the discoveries related to artworks themselves and the human-object relation. This included themes like meaning-making and interaction with art objects; metaphors and analogies; connections, comparisons, and references; text materials; emotional and physical reactions; audiences-artworks-artists relation; and body movements. The second aspect focused on the beyond-thingness perspectives, which included the impression of space; unexpected sense data; decision-making; atmosphere; and social interactions. The last perspective suggested the limitation of this fieldwork method, which included the limitation of verbal language; the discomfort of talking about art; the activity guidelines; and the behaviour principle in

gallery space. Details of these experiential themes were demonstrated in 4.2.

With the understanding of the subjective experience and experiential themes from the fieldwork, I then summarised these themes into an experiential framework on physical exhibition. The framework was divided into two sections: the thing and thing-related framework (on the left) and the beyond-thingness framework (on the right). Thing and thing-related framework were developed from the data analysis from the 'Object-Oriented' lens, which included interaction with art objects; artist–audience relation; references and connections; and the freedom for decision-making. The beyond-thingness framework was suggested from the second and third aspects of data analysis, which included unexpected sense data; atmosphere; social interactions; and potential gallery behavioural principle. Similarly, the full discussions were presented in 4.3.

7.1.2 Uncover artworks in online exhibitions experience by using the experiential framework

After the development of the experiential framework in the fieldwork and data analysis, I then re-evaluated three online exhibition cases under visual ethnography methodology and 'Object-Oriented' considerations. These three cases were selected based on different online exhibition formats: video tour, 3D showroom and webpage. I captured my experience in these three cases by note-taking and mapped my responses in the physical exhibition framework. I will highlight several discoveries specifically on each platform: the problem of paintings documentation as flat digital moving images and the camera shooting issues on the RA Léon Spilliaert video tour; discussion on panoramic imagery capturing space and hand gestures unifying sensations in RA Ai Weiwei 360° showroom; also the multi-layered complexity of materiality and the dynamic artist–audience relation created by camera language in Michael Curran's film on the webpage presentation. These discoveries were discussed in Chapter Five and helped structure later theoretical reflections.

7.1.3 Articulate and reflect on digitally transformed artworks in future art and curatorial practice

Firstly, I developed an 'Object-Oriented' model that could explain the communication error in the digital transformation process (5.4.1). The model coded the digitalising process with Harman's *Quadruple Object* and articulated the possible transformation and experiential connections among them. The model also uncovered two key components that may influence people's interaction through DTA: 1. what do we 'see' – what happens between RO1 (the real art object) and RO2 (the digitally transformed material) based on artworks themselves and the quality of digital transformations; and 2. how do we 'think' – what happens between SO2 (Sensual object of the DTA) and SO1 (sensual object of the original artwork) Then we can identify if there are barriers for people to experience, restore and interpret the original artwork through DTA.

Secondly, through the subjective phenomenological discussions around the three online exhibition cases, I also suggested two other possible reasons for the communication

errors with DTA: how do we 'see' and where do we 'see' from (in 5.4.2). These two ideas were developed from observing our relations to those DTA. How do we 'see' indicated the related body movement and mediums involved with the interaction with online materials, for example, the hand gestures unified the seeing and body movement in digital 'space'(5.2.2) and the possible confusion of reflections on painting frames and glazing in the video and personal device screens (5.1.3). Where do we 'see' from suggested ideas about camera shooting angles, focuses and other visual image effects of DTA? Here we may discuss whether these DTA images succeed in mimicking our ways of seeing, for example, the telephoto focus and filming angles (5.1.2) and the unfamiliar wide camera view in the panoramic showroom (5.2.2).

And finally, we have covered the interpretation confidence and potential power between artists and audiences (5.4.3) from the reflection on the fieldwork. Some participants have suggested they felt uncomfortable and unconfident when talking about art. In the after-interviews with them, they mentioned the reason for this could be a potential power issue in the artist–audience relation, and with other audiences. These issues might create barriers to individual experience in artworks and a broader intercultural problem in art practice and communication. This suggested that artists, curators, and other stakeholders could take more considerations to building more inclusive and non-judgemental art communities in future practice.

7.1.4 Summary

There were three primary outcomes from this research project: an experiential framework, which helped to understand subjective experiences on physical exhibitions; an 'Object-Oriented' model, which may explain the digital transformation process and the reasons for communication errors with DTA; and other related discoveries, which may suggest several perspectives and problems in the current art practice context. These suggestions could alternatively benefit future art practice, and both online and physical exhibition curation.

7.2 Research outcome evaluation

7.2.1 Academic beneficiaries

The primary audiences of this research target those researchers, educators, curators and art practitioners in the academia and art disciplines. Echoing the three main outcomes summarised in 7.1, I will suggest the potential academic beneficiaries in this section.

Firstly, the delivery of the experiential framework (4.3) could possibly offer curators and art practitioners several aspects in their future curatorial and artistic practices on physical exhibitions. Especially the art objects–viewers relation, art viewers' experience pattern on artworks, and the sensation of the atmosphere could be regarded as alternative reminders in curatorial practices. Secondly, developing the DTA model (5.4.1)

will arguably give some insights into re-understanding DTA from the 'Object-Oriented' lenses. This model could probably benefit researchers and educators to continue these discussions, experiments, and tests on these DTA theoretical outputs through their critical debates and/or practices. Finally, I would suggest those other discoveries could potentially open up the conversations regarding the online exhibitions curations, and the ethical considerations in the current contemporary context.

7.2.2 Non-academic beneficiaries

Although this research is not directly aimed at non-academic audiences, I would suggest the project outcomes could still indirectly benefit them. During the study, I explained the experiential framework and the DTA model to some fieldwork participants. They offered positive feedback and continuous discussion on the power issue, as demonstrated in 5.4.3.

I believe such research outcomes (7.1) could indirectly encourage a more inclusive and equalised contemporary art context. With the rising awareness of such existing curatorial issues within the digitalised art environment, this project could help curate exhibitions in various formats, accessibilities, and apprehensions for art viewers. This research could also support educational activities and events from art institutions and stakeholders to develop art viewers' freedom, comfortableness, and interpretation confidence in the art and exhibition environment.

7.3 Research limitations

I was aware of several limitations while proceeding with this research. I will discuss them from two perspectives in this section: theoretical limitations and practical limitations.

7.3.1 Theoretical limitations

Firstly, this project took the speculative realism perspective – more precisely the 'Object-Oriented Philosophy' – to review the current problem of DTA in the digitalised exhibiting context, and to uncover the reasons for communication errors in the digital transformation process. However, there are many counter-critiques of *OOO*, such as (Cole, 2013) and (Austin, 2010). Also, Harman's review strongly influenced the understanding of previous existentialism theories used in this project, such as Husserl's and Heidegger's ideas. Therefore, it is necessary to put *OOO* in a broader and more critical discussion and evaluation with other contemporary metaphysical ideas, such as Latour's 'ANT' and Morton's *Hyperobjects* (2013).

Secondly, due to the scope of this research context, there were limited studies on the beyond-thingness of art objects in the exhibition context. I would suggest several aspects of further theoretical studies in the future, such as the aura (Benjamin, 2008), atmosphere, qualia (Tye, 2021), sense data, time and space, intercultural discussion, and audiences' perceiving affordance (in service and interaction design).

7.3.2 Practical limitations

Due to the time frame of this M.Res programme, there were some limitations in the fieldwork design. These limitations were based on two aspects of consideration. Firstly, there was a limited separation of participant groups in the fieldwork. Ideally, the fieldwork should recruit participants from diverse positions (suggested in 3.2.4) for more representative data from stakeholders' multi-perspectives responses. Also, there were limits to the validated qualitative data I could collect from the after-survey, which set up boundaries to combine participants' experience data combined with quantitative analysis. Such limitations could be improved in a better fieldwork structural and material design in data collection in future studies.

Moreover, I was aware of the limitation in the data collection method, which was suggested in 4.2.3. I would recommend co-designing the activity structures with artists, curators, and art viewers before proceeding with data collection, which could contribute to analysing the discrepancies in art making, curating, and interpreting in exhibition settings. The second aspect of limitation is the fieldwork setting selection. This project takes place from 2022–2023, when there were limited hybrid exhibition recourses in the UK. For more comprehensive comparative data analysis and framework development, I would suggest an ideal fieldwork setting, where the same artwork materials are both exhibited online and in a physical venue. The data collection and analysis could also be improved with a more comprehensive evaluation on how participants' subjective interest, personal history, and cultural background influenced their experience mechanism with art objects. This improved setting selection and new fieldwork structure could also possibly involve focus groups and comparative study methods to create a better understanding of the DTA context.

7.4 Future research and recommendations

In this section, I will introduce the recommendations and future research topics that emerged from this research journey.

Firstly, I will suggest a discussion on the atmosphere in the physical and online exhibition context. Briefly suggested in 4.2.2.a and 4.2.2.d, the atmosphere in the exhibition space was captured as an essential point in the participants' experience. I demonstrated that sound, lighting, and other sense data may contribute to the atmospheric setting in the exhibition space, which could engage further discussions in future curatorial practices.

The second recommendation is for further discussions on the written and linguistic text in the exhibition context. We covered the multi-role of text information that mediated participants' meaning-makings and behaviours in 4.2.1.b. Therefore, I recommend further research on the text used explicitly in gallery space under Derrida's 'deconstructionism' and Wittgenstein's 'language game and private language'. This could

potentially combine with the intercultural discussions suggested in 4.2.3.a. which may happen in gallery spaces.

Thirdly, I found it is necessary to study further the potential principle set by galleries and the surrounding environment, which was suggested in 4.2.3.c. This topic may involve art viewers' decision-making, emotional and physical reactions (4.2.1.e) and the discomfort of talking about art (in 4.2.3.a). This principle issue may also include a discussion around the power issue in the artists–audiences relation, which may include how to build up art viewers' interpretation confidence through art practice, curation, and academic and public education.

Furthermore, and finally, I would suggest returning to the DTA and online exhibition issues. We could alternatively revisit the DTA issue from other theoretical perspectives (suggested in 7.3.1) and a more practical and experimental approach to online exhibitions. Art curators could arguably consider online exhibition curations with the awareness of different design methodologies from physical exhibitions, rather than duplicating physical works or completely avoiding online exhibitions. Also, I would suggest artists could experiment with these apprehension format potentials through their practices.

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APPENDIX

A. Fieldwork preparation

A.1 Information sheet for participants (ethics consideration)

Participant Information Sheet

**INNOVATION
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Title of study:

The Affects of Digitalisation on Non-Digital Artwork from the Global Pandemic

Invitation Paragraph:

Thank you very much for your interest in this research project. Since the global pandemic in 2020, there has been a considerable challenge and influence on the communication context of art. Many galleries and art spaces need to reduce the number of visits or even close down; exhibitions have to take place online; physical art objects, like installations and sculptures etc., were forced to be transferred into a digital document format. Such a situation challenged art practice, curation, and other art-related activities and events. Thus, this project is aimed to understand such problems by focusing on the discussion of art objects themselves; and to provide an alternative insight into the art practice and curation in the digitalised context.

What is the purpose of the study?

This research project will build an understanding of the materiality of art objects and Digitally Transformed Artworks, by studying people's experiences. This is part of the researcher's MRes study, which is a postgraduate research degree offered across all schools at The Glasgow School of Art.

For more information on this project, please refer to the following pages of this information sheet. And for anything that isn't covered in this documentation, please contact the researcher, Toby, at c.mao1@student.gsa.ac.uk.

Thanks again for participating in this research project. This project truly values all your ideas, insights, efforts, and feedback.

Why have I been invited to take part?

If you are interested in visual arts, if have you ever experienced an online exhibition, if you make artwork and think about how to present them, or if you have any insights on the digital exhibiting platforms during and, hopefully, the post-pandemic, then this research project will need your help!

Do I have to take part?

No, you do not have to take part in both stages. You can choose to end your participation at any time. Using the consent form, you can choose the level of documentation and participation to continue with. If you're a GSA student, your participation is completely voluntary, and your involvement or otherwise will not have any bearing on your academic performance, grades or progression.

What will happen to me if I take part?

Before the activity, you will have time to ask questions about the research project and the activity. Then you will need to sign two copies of the consent form. You will be offered a printed guideline for instructing the activity (refer to the final page). You will choose the sampling method in the Pre-participating questionnaire. The sampling method will be the following: a) Audio recording during the experience: The researcher will offer you an audio recorder before you start visiting the exhibition. You're encouraged to talk about your first-person descriptions of experience, sensations and thoughts during the process of your exhibition visit; or b) An after-interview: The researcher will ask you to describe the same content following the guideline after you finish your visit. The interview venue will be out of the gallery space in the GSA Reid building.

After the activity, you will be asked whether you're happy with a further interview (stage 2 data collection) after the researcher analysis your data. You can choose if you want to participate in the stage 2 interview. The stage 1 activity will end with a survey about the research activity and gallery experience. In the After-activity survey, questions 7-11 are related to the Reid gallery experience. If you agree in the consent form, your response to questions 7-11 will be anonymously shared with GSA Exhibitions team for the purpose of curatorial improvement.

Stage 2 data collection will happen after the researcher transcribes and analysis the individual data (within two weeks after the stage 1 data collection). When you agree to the following interview, you will be contacted by the researcher through email for this stage 2 data collection. This process will follow a semi-structured individual interview with the

researcher, while the questions are based on the individual data collected at stage 1. The interview will take place in the common area at the GSA Reid building and will take around 15 minutes. You will be offered the consent form, and the interview is recommended to be audio recorded. You will need to attend the stage 1 activity to attend the stage 2 interview.

After each activity, the researcher will send you a copy of your transcript. This is to review and confirm the content is explicit; make sure your identity is not unidentifiable; consent to the transcript to be used in the thesis and be made publicly accessible for research and teaching purposes.

What are the possible benefits and risks of taking part?

Covid considerations:

All participants will go through the pre-participating questionnaire to ensure you don't have any Covid symptoms. ii) The activity will follow the latest GSA Covid guideline and Scottish Government Coronavirus (COVID-19) advice and guidance for: universities, colleges and community learning and development providers. Before the activity, the researcher will offer hand sanitiser, recommend and offer participants face coverings and sanitise any possible touching surface (such as the audio recording devices, pens etc.). During the activity, the researcher will maintain physical distance. After the activity, the researcher will sanitise the surface touched by the participants. You are also welcome to discuss further Covid transmission mitigations with the researcher if needed.

Personal data protection:

This research project will collect your email address and audio recording during the activity. Only the researcher and GSA supervisors will have access to the above information. Your email address is used for recruitment and communicating activity details in this project. Your audio recordings are the main data collected and used in this project and will only be accessible to the researcher and GSA supervisors. The audio files will be coded with numbers, securely stored in a separate hard drive and permanently destroyed two years after the examination panel assesses the project. Your audio recordings will be transcribed by the researcher and used as primary data in the thesis of this project. The researcher will send you a copy of your transcript to ensure any needed amendments and exclusive from identifiable information, and ask for your consent for use. If agreed, the anonymous transcript will be made publicly available in examinable format (viva, examination presentation, dissertation or thesis) for research and teaching purposes. Completed participants' consent forms will be stored safely in the locker at the GSA Innovation School office. They may be accessed by the researcher and GSA supervisors, and be securely destroyed two years after the examination panel assesses the project. The researcher will follow the Data Collection Act 2018 to keep the collected data safe during and after the research process.

What will happen to the results of the study?

Your audio data will be coded with numbers and transcribed by the researcher. Only the anonymous transcripts will be analysed as part of the researcher's MRes study, which will be made publicly available in examinable format (viva, examination presentation, dissertation or thesis) for research and teaching purposes. You are welcome to ask for a project update from the researcher.

What if I have further questions, or if something goes wrong?

If this study has harmed you in any way or if you wish to make a complaint about the conduct of the study, you can contact GSA using the details below for further advice and information:

Dr Michael Pierre Johnson, m.johnson@gsa.ac.uk

Or

Dr Aude Campbell Le Guennec, a.leguennec@gsa.ac.uk

Or

Research and Enterprise Office, The Glasgow School of Art, 167 Renfrew Street, G3 6RQ: research@gsa.ac.uk

Thank you for reading this information sheet and considering participating in this research.

Please keep this sheet for future reference.

A.2 Pre-participating questionnaire

Thank you for your interest in the research project-The Affects of Digitalisation on Non-Digital Artwork from the Global Pandemic. Please go through the Information Sheet for Participants before completing this questionnaire.

This project will take place at the GSA Reid Gallery, based on Mhairi Killin's exhibition On Sonorous Seas.

The following questions are for a better participating experience. All the personal information is protected under the Data Protection Act 2018 and GSA Research Ethics requirement. This questionnaire contains 10 questions and will take you around 3 minutes to complete.

If you have any questions, please contact the researcher, Toby, at: c.mao1@student.gsa.ac.uk.

1. Have you read the Information Sheet for Participants of this research project?

Yes

No

2. Are you from one of these vulnerable groups?

[Children under 16; Adults unable to give consent under the Adults with Incapacity Act (2000) Scotland; Prisoners (incl those convicted under UK law, detainees or asylum seekers); Individuals in dual relationships (e.g. students, staff, family members of GSA staff etc.)]

(This question is required by the Research Ethics and Risk Assessment by the Glasgow School of Art.)

Yes

Children under 16

Adults unable to give consent

Individuals in dual relationships

No

3. What is your preferred pronoun?

He/him

She/her

They/them

Other

Prefer not to say

Prefer to self-describe:_____

4. How would you describe your occupation and/or the working/studying discipline?

Prefer not to say

5. What method do you prefer for the documentation?

Audio recording while viewing the exhibition

A semi-structured interview after seeing the exhibition

Other (Please explain, and the researcher will be happy to make reasonable adjustments):_____

6. Are you happy for a further interview or conversation after the researcher reviews your data?

(If yes, you will be contacted by the researcher through email within 2 weeks of your participation for this interview.)

- Yes
- No

7. Do you have any symptoms of Coronavirus?

(Such as continuous cough, high temperature, fever or chills, loss of, or change in, your normal sense of taste or smell)

- Yes
- No

8. Do you have any other enquires for participatory adjustment?

(Such as accessibility, pandemic consideration etc. You are welcome to discuss any ideas and concerns with the researcher to improve your participatory experience.)

-
- No

9. Could you please provide your email address?

(Your email address is only used for recruitment and communicating activity details in this project. Only the researcher and GSA supervisors will have access to this information. It will be coded with number and is protected under the Data Protection Act 2018.)

-
- I don't want to provide my email address

10. When do you plan to visit the Reid Gallery and take part in the activity?

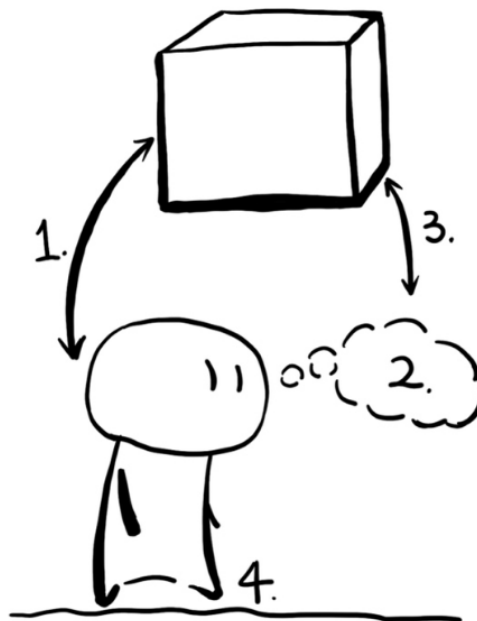
(Please note the opening time of the exhibition at Reid Gallery is: 26 November–17 December 2022, Mon–Sat, 10:00-16:30. The researcher will meet you at your chosen time outside the Reid Building near Scott Street.)

A.3 Fieldwork activity guidelines for participants

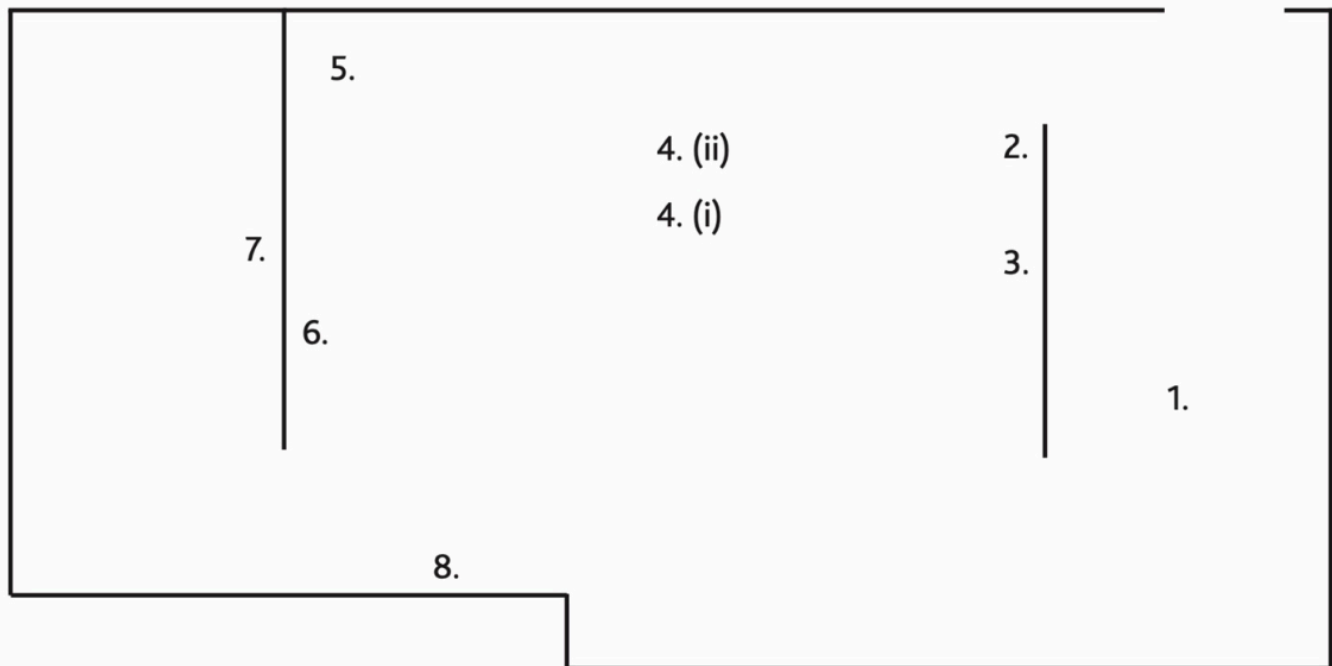
Stage 1 Activity Guideline

The main data collected in this activity is to verbally capture and describe your experience and idea development while visiting the exhibition. Some of the hints for you are:

1. Describe your sensations: Try to describe what you see, hear, smell, feel and any other feelings (such as the material, colour, shape and other sensual elements) as detailed as possible.
2. Describe the meanings: Try to capture and describe your experience, ideas, motivations and actions throughout the visit.
3. Understand the interpretation: Try to think and talk about how you get your ideas from the works.
4. Capture the movement: Try to capture/recall your body movement in the following graph.



Floor plan to capture your body movement



1. Extant

Cuvier's Beaked Whale skull, recovered from Bragar, Isle of Lewis, by Jon Macleod in 2018. Etched silver rest by Mhairi Killin, words from Ossuary by Miek Zwamborn, calligraphy by Susie Leiper.

2. Ossuary

Miek Zwamborn, (translation Michele Hutchison). Read by the poet.

3. Ossuary

Miek Zwamborn, (translation Michele Hutchison) Calligraphy Susie Leiper. Embossed whale bone papers by Mhairi Killin and Miek Zwamborn.

4. (i) Project Research 2020/21

Mhairi Killin sketchbooks, prints and silver elements.

4. (ii) Project Research 2020/21

Cuvier's Beaked whale vertebrae recovered from two locations on the Isle of Lewis, 2018, by Jon Macleod and Màiri NicGilliosa.

5. Listening Station - On Sonorous Seas Podcast

Produced by Mhairi Killin and Fergus Hall, edited by Fergus Hall with music by Fergus Hall.

6. A Constellation of Strandings

Installation of 10 cast silver Cuvier's Beaked Whale ear bones depicting the 2018 stranding locations around the islands of Iona, Mull, Coll and Tiree.

7. A Constellation of Strandings

45 minutes.

Sound composition by Fergus Hall with video by Mhairi Killin in collaboration with Tom DeMajo. Featuring vocals by Lea Shaw.

8. The Nature Library

Selection of books curated by Christina Riley, founder of The Nature Library. Includes exhibition copy of the On Sonorous Seas publication.



Research Consent Form

Research Project Title :

The Affects of Digitalisation on Non-Digital Artwork from the Global Pandemic-Stage 1 Activity

Lead Researcher: Chengwei Mao/Toby

Contact Details: c.mao1@student.gsa.ac.uk

*Please initial
boxes*

- 1. I confirm that I have read and understand the participant information sheet for the above study;
- 2. I have had an opportunity to consider the information, ask questions and have had these answered satisfactorily;
- 3. I agree to being audio recorded as part of the research and I understand that these materials will only be accessed by the researcher and GSA supervisors;
- 4. I understand and agree to the transcripts of audio recordings being made public available in examinable format (viva, examination presentation, dissertation or thesis) after I review and confirm the transcript with the researcher. This is only for the purposes of research and teaching, and I understand that these materials will remain anonymous;
- 5. I agree to the results being used for *future* research or teaching purposes;
- 6. I agree to take part in the above study;
- 7. I am happy to be contacted by the researcher for a following interview after the researcher reviews my data, (if yes, please provide your email address below);
- 8. I agree to share my response in the After-activity Survey with GSA Exhibitions, and I understand this will remain anonymous;
- 9. I am happy to be contacted about any future studies and agree that my personal contact details can be retained in accordance with the Data Protection Act 2018

Name of participant
with email address (optional)

Date

Signature

Researcher
Chengwei Mao/Toby
c.mao1@student.gsa.ac.uk

Date

Signature



Research Consent Form

Research Project Title :
The Affects of Digitalisation on Non-Digital Artwork from the Global Pandemic-Stage 2 Interview

Lead Researcher: Chengwei Mao/Toby

Contact Details: c.mao1@student.gsa.ac.uk

*Please initial
boxes*

- 1. I confirm that I have read and understand the participant information sheet for the above study;
- 2. I have had an opportunity to consider the information, ask questions and have had these answered satisfactorily;
- 3. I agree to being audio recorded as part of the research and I understand that these materials will only be accessed by the researcher and GSA supervisors;
- 4. I understand and agree to the transcripts of audio recordings being made public available in examinable format (viva, examination presentation, dissertation or thesis) after I review and confirm the transcript with the researcher. This is only for the purposes of research and teaching, and I understand that these materials will remain anonymous;
- 5. I agree to the results being used for *future* research or teaching purposes;
- 6. I agree to take part in the above study;
- 7. I am happy to be contacted about any future studies and agree that my personal contact details can be retained in accordance with the Data Protection Act 2018

Name of participant with email address (optional)	Date	Signature
--	------	-----------

Researcher Chengwei Mao/Toby c.mao1@student.gsa.ac.uk	Date	Signature
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A.5 Fieldwork procedure for the researcher

1. (Before participants arrive) Test equipment. Sanitise touching surface. Prepare consent form, floorplan, and pen on clipboard. Notice exhibition invigilators.

2. (5 minutes before the time slot) Welcome and meet the participant on Scott Street. Walk them to the project area in Reid building outside the gallery space.

3. Greetings and appreciation, 'have you read through the information sheet?'

4. Talk through the activity and project:

'Research aim: study about how we're making sense by artworks by study the real experience while viewing the exhibition. Audio recorded. Equipment, clip microphone on your clothes near your neck, audio recording while you speak'.

'Just for your information, you can talk about anything related to the artworks and the exhibition, refer to the guideline: describe the sensual information (see, hear, read etc.); talk about the meaning you gathered from the works; how you make meaning through the sensual information. Also, it will be very helpful to capture your body movement by using the floor plan on the back of the sheet'.

(To some participants if feel confused): 'You can imagine describing the works to someone who cannot visit the exhibition in person. And can discuss the ideas and thoughts'.

5. Questions from participants?

6. Sign consent form (two copies, one for participants)

7. Set up equipment: ON=ON=Recording=Test

8. Any questions during the activity; you can feel free to stop at any time.

9. Masks, sanitiser if needed.

10. Stop recording and welcome them back.

11. Feelings, thoughts, comments, and reflections

12. Next: "Contact information and audio files will be coded by number and store in separate USBs. Transcribe (and translate) the data. I'll send you the transcripts by email to confirm they're explicit, without indefinable information and gain your consent to use the content in this study; Follow-up interview (if needed) will be no more than 2 weeks after I transcribe and analyse the data. "

13. After-Survey now or later, QR code on poster.

14. Questions, concerns, ideas contact by email.

15. Appreciation for participation (ask food allergy and preference, offer them biscuits, and exhibition publication as appreciation), and goodbye.

16. Reset equipment, transfer data in separate USBs and delete recordings on recorder. Sanitise touched surface.

Clarity of information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very Poor	Poor	Neither good nor poor	Good	Very good	Don't know/ not applicable/ prefer not to say
Verbal communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very Poor	Poor	Neither good nor poor	Good	Very good	Don't know/ not applicable/ prefer not to say
The activity experience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very Poor	Poor	Neither good nor poor	Good	Very good	Don't know/ not applicable/ prefer not to say
Overall experience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very Poor	Poor	Neither good nor poor	Good	Very good	Don't know/ not applicable/ prefer not to say

5. How do you think today's experience reflects or inspires your future creative activities?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1				5
Very poor				Very helpful

6. Do you have any feedback or comment for the researcher?

Please do not share any identifiable information here.

Question 7-11 are about the Reid Gallery and feedback for GSA Exhibitions.

7. How did you get to know this exhibition?

- Social media platforms (LinkedIn/ Instagram/ Eventbrite etc.)
- GSA newsletter
- GSA Exhibition blog
- Posters, printings
- Word of mouth
- Random visit
- Other:_____

8. What is your motivation for visiting this exhibition besides this research project?

- To spend time with friends/family
- For a special occasion
- For peace and quiet
- To be intellectually stimulated
- To be entertained
- To be inspired
- To do something new/out of the ordinary
- To learn something
- To enjoy the atmosphere
- For reflection
- Visual art is an important part of who I am
- To escape from everyday life
- For academic reasons

- For professional reasons
- To entertain my children
- To educate/stimulate my children.

9. How would you rate the following?

Quality of the exhibition/event

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Very Poor	Poor	Neither good nor poor	Good	Very good	Don't know/ not applicable/ prefer not to say

Value for money of paid element

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Very Poor	Poor	Neither good nor poor	Good	Very good	Don't know/ not applicable/ prefer not to say

The whole experience

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Very Poor	Poor	Neither good nor poor	Good	Very good	Don't know/ not applicable/ prefer not to say

10. What do you expect to access from the GSA and Reid gallery in the future?

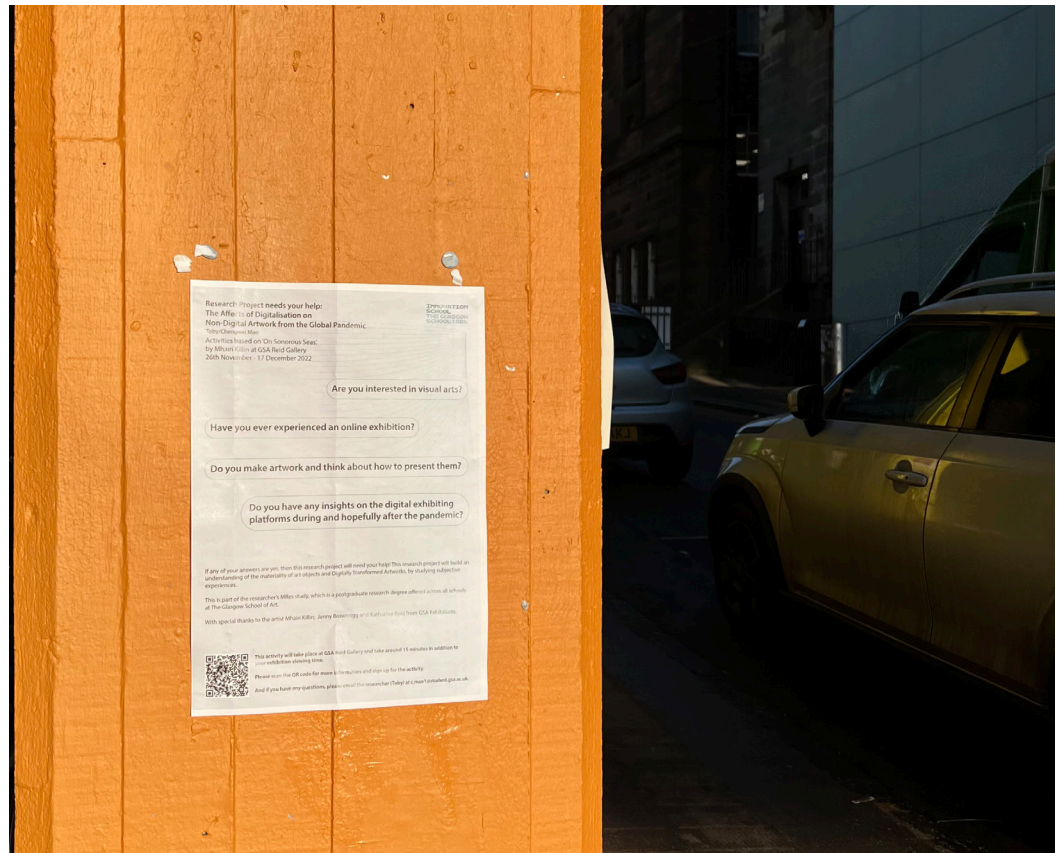
- Visual art exhibitions
- Online access to artworks/online exhibitions
- In-person events
 - Performance;
 - Artists talk;
 - Workshops;
 - Screenings;
 - Seminars;
 - Public lectures;
 - GSA students-related activities;
 - Other in-person events: _____
- Online events
 - Performance;
 - Artists talk;
 - Workshops;
 - Screenings;
 - Seminars;
 - Public lectures;
 - GSA students-related activities;
 - Other online events: _____
- Other: _____

11. Are you happy to share your response to the gallery-related questions (7-11) with GSA Exhibitions?

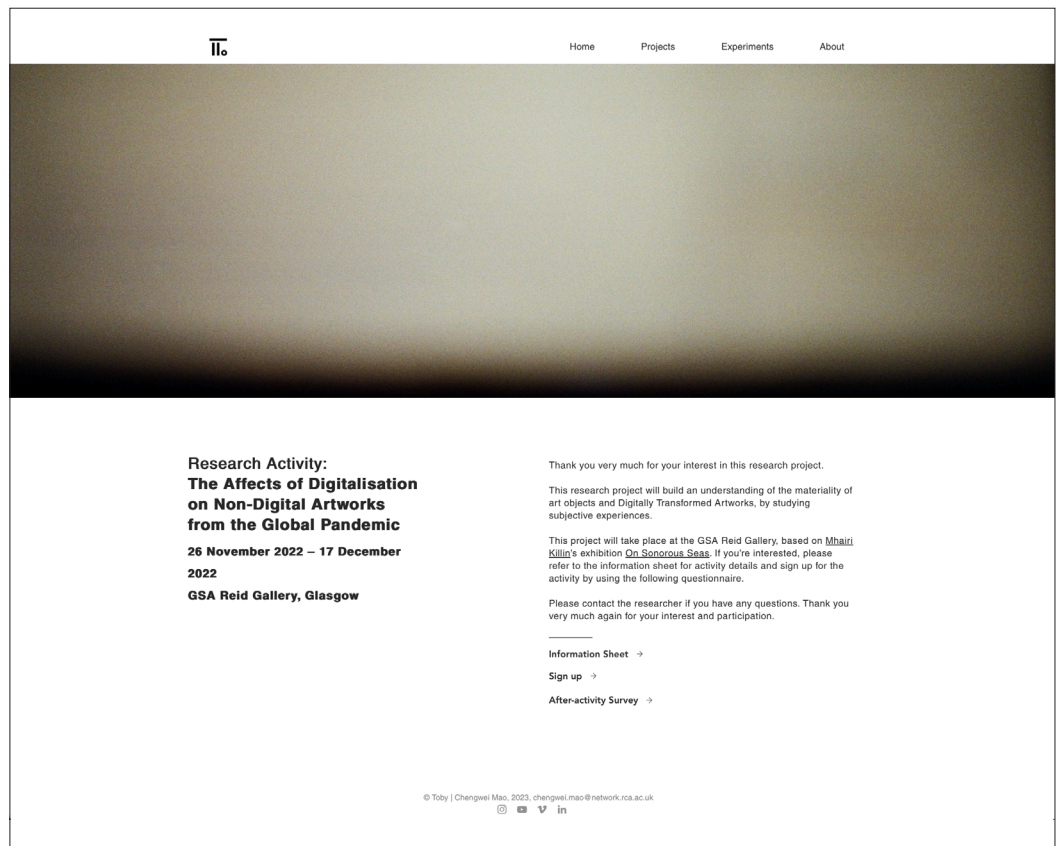
(Your response will remain anonymous.)

- Yes
- No

A.7 Recruitment materials



Recruitment poster at GSA campus



Activity webpage

B. Fieldwork settings and online exhibition materials

B.1 Exhibition Leaflet, Mhairi Killin, 'On Sonorous Seas' (2022)

ON SONOROUS SEAS

MHAIRI KILLIN

IN COLLABORATION WITH FERGUS HALL,
TOM DEMAJO, MIEK ZWAMBORN AND SUSIE LEIPER

26 Nov - 17 Dec 2022

The story of *On Sonorous Seas* began with a whale carcass that came ashore in August 2018 at Traigh an t-Suidhe/Strand of the Seat, at the north end of the Isle of Iona, where artist Mhairi Killin lives. What became of the whale is a story told with the voices of science, art, music and poetry. It interrogates the power of, and reliance on, sound as a survival tool for both the whales and the military, and the complex relationship between the militarisation of Scotland's seas and their existing ecosystems.

The Iona whale was one of over 45 badly decomposed Cuvier's Beaked whales that washed up on the shores of several Hebridean islands in August 2018. At the same time, another 23 whales were stranded on the West coast of Ireland, and scientists have been investigating this 'unique mortality event' in relation to the increased presence of military sonar activity in the area around Porcupine Bank, as confirmed by the Royal Navy in September 2021.

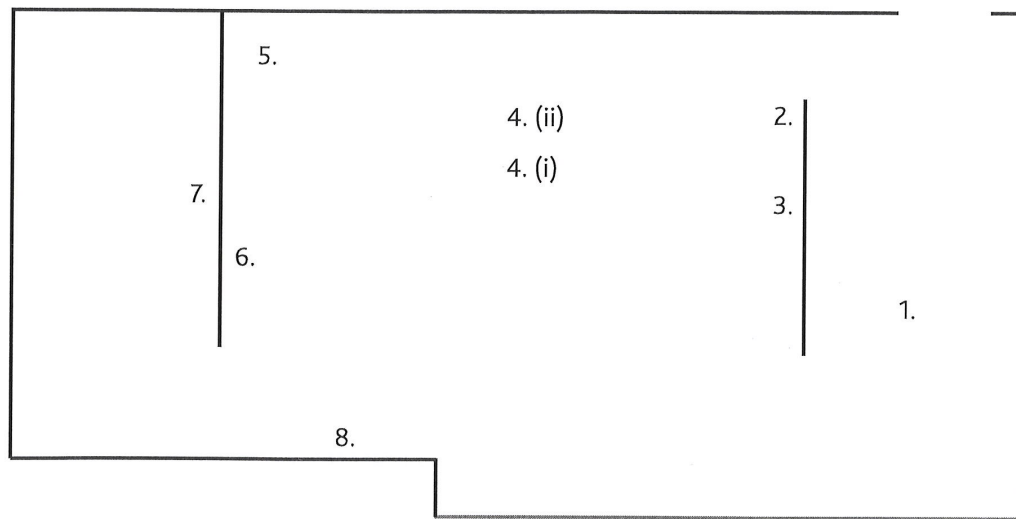
Finding out why the Iona whale had died led the artist on a journey into the tangled overlay of two cryptic environments; the habitats of the military and the habitats of deep diving whales. It took her on a ten-day sea voyage aboard the Hebridean Whale & Dolphin Trust (HWDT) research vessel, *The Silurian*, during the largest tactically-focussed, NATO-led, military exercise in Europe – Joint Warrior – and immersed her in a pelagic world of sound. During this time Killin and HWDT scientist Becky Dudley,

collected sound and visual data using hydrophones and computer software.

Fascinated by what happened to the whales, Killin reached out to other people who'd encountered them after the stranding. The skull of one particular Cuvier's Beaked whale, which washed up at Bragar on the Isle of Lewis, is a powerful focal point in the final work. Cast silver ear bones taken from 3D scans of one of the stranded whales, create a constellation in the gallery – mapping the positions where the whales came ashore around the islands of Iona, Mull, Coll and Tiree.

The central video piece, *A Constellation of Strandings*, was created in collaboration with digital artist Tom deMajo (Biome Collective), with a new composition by Fergus Hall. Composed almost entirely from hydrophone recordings of orca calls, dolphin clicks and whistles, mid range active military sonar and boat engines made during Killin's research trip on the *Silurian*, Hall has created an accompanying soundscape across 6 movements, featuring vocals from Lea Shaw.

Dutch-born and Mull-based poet and artist Miek Zwamborn wrote a poem as an elegy and requiem for the whales, with calligraphy by artist Susie Leiper on loose leaf papers imprinted with impressions of whale bones gathered during the stranding event.



1. *Extant*

Cuvier's Beaked Whale skull, recovered from Bragar, Isle of Lewis, by Jon Macleod in 2018. Etched silver rest by Mhairi Killin, words from *Ossuary* by Miek Zwamborn, calligraphy by Susie Leiper.

2. *Ossuary*

Miek Zwamborn, (translation Michele Hutchison). Read by the poet.

3. *Ossuary*

Miek Zwamborn, (translation Michele Hutchison) Calligraphy Susie Leiper. Embossed whale bone papers by Mhairi Killin and Miek Zwamborn.

4. (i) Project Research 2020/21

Mhairi Killin sketchbooks, prints and silver elements.

4. (ii) Project Research 2020/21

Cuvier's Beaked whale vertebrae recovered from two locations on the Isle of Lewis, 2018, by Jon Macleod and Màiri NicGilliosa.

5. Listening Station - On Sonorous Seas Podcast

Produced by Mhairi Killin and Fergus Hall, edited by Fergus Hall with music by Fergus Hall.

6. *A Constellation of Strandings*

Installation of 10 cast silver Cuvier's Beaked Whale ear bones depicting the 2018 stranding locations around the islands of Iona, Mull, Coll and Tiree.

7. *A Constellation of Strandings*

45 minutes.

Sound composition by Fergus Hall with video by Mhairi Killin in collaboration with Tom DeMajo. Featuring vocals by Lea Shaw.

8. The Nature Library

Selection of books curated by Christina Riley, founder of The Nature Library. Includes exhibition copy of the *On Sonorous Seas* publication.

The Nature Library Reading List:

Non-Fiction

The Leviathan - Philip Hoare
Letters to the Earth: Writing to a Planet in Crisis - Various
Seeing Green - Jonathon Porritt
Blue Angels and Whales - Robert Gibbings
Maim-Slè - Alasdair C. MacIlleBhàin
Man's War Against Nature - Rachel Carson
Rewilding the Sea: How to Save Our Oceans - Charles Clover
Save the Dolphins - Horace Dobbs
Undrowned: Black Feminist Lessons from Marine Mammals - Alexis Pauline Gumbs
We Are All Whalers: The Plight of Whales and Our Responsibility - Michael J. Moore
Belonging: Natural Histories of Place, Identity and Home - Amanda Thomson
Sightlines - Kathleen Jamie
War of the Whale - Joshua Horwitz
Sensory Experiments: Psychophysics, Race, and the Aesthetics of Feeling - Erica Fretwell
Bodies of Water: Posthuman Feminist Phenomenology - Astrida Neimanis
Staying with the Trouble: Making Kin in the Chthulucene - Donna J. Haraway
The Seaweed Collector's Handbook - Miek Zwamborn

Strangers: Essays on the Human and Nonhuman -

Rebecca Tamás

Other Minds: The Octopus and the Evolution of Intelligent Life - Peter Godfrey-Smith

Fathoms: The World in the Whale - Rebecca Giggs

Fiction

Pod - Laline Paull

Poetry & Artist books

Of Sea - Elizabeth-Jane Burnett

Drawing Water - Tania Kovats

Salmon: A Red Herring - Cooking Sections

Soundmarks - Rose Ferraby/Rob St. John

A Commonplace book of ATLAS - Emma Nicolson/
Gayle Meikle

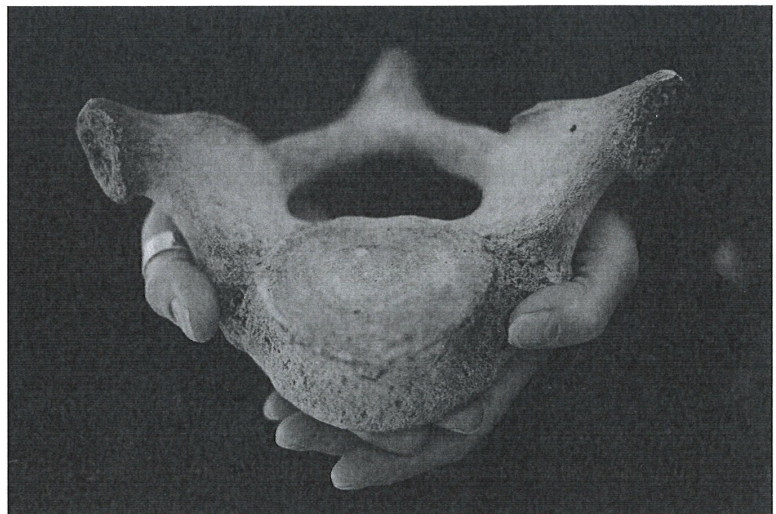
The Beach Today - Christina Riley

Make Seaweed Fertiliser - Oban Seaweed Gardens

Moder Dy - Roseanne Watt

Marine Objects - Suzannah V Evans

On Sonorous Seas - Mhairi Killin and Fergus Hall



Mhairi Killin, 'On Sonorous Seas' Photo: Shannon Tofts

Killin produced a podcast series which explores both the research behind the project and these collaborations. All six episodes are available at the Listening Station in Reid Gallery or online via this QR code.



The *On Sonorous Seas* publication with CD is for sale for £15 in Reid Gallery during the exhibition.

Mhairi Killin lives on the Isle of Iona, in the Inner Hebrides of Scotland, where she works with the precious relationships between land, sea, humans, and other living beings. Her practice explores the island landscapes that surround and are her home, and she seeks to understand how belief structures – religious, mythopoeic, and socio-political – have shaped the physical and metaphysical spaces she journeys through.

On Sonorous Seas was commissioned by An Tobar and Mull Theatre, where the exhibition was first presented in July/August 2022. The project was funded by AN Bursaries, VACMA Award/Creative Scotland, CHArts and The Space CIC with support from Hebridean Whale & Dolphin Trust, Scottish Association for Marine Science, National Museums Scotland, Scottish Marine Animal Strandings Scheme. Thanks to Innis & Gunn for their support of the Preview at GSA.

All cetacean species found in Scottish waters are classed as European protected species and a Nature Scot license is required to use/collect their remains. Mhairi Killin is covered by a Nature Scot license to carry out this project.

An Tobar and Mull Theatre

THE GLASGOW
SCHOOL OF ART



Hebridean
Whale &
Dolphin
Trust

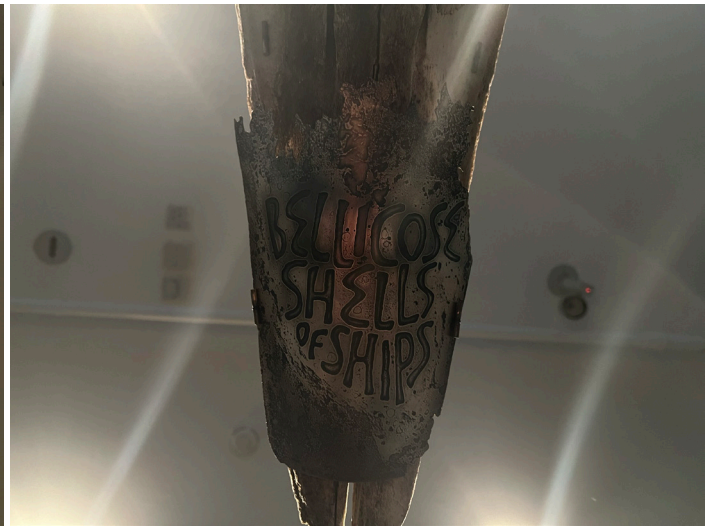
INNIS & GUNN

B.2 Pictures of fieldwork setting, Mhairi Killin, 'On Sonorous Seas' (2022)

Exhibition room 1



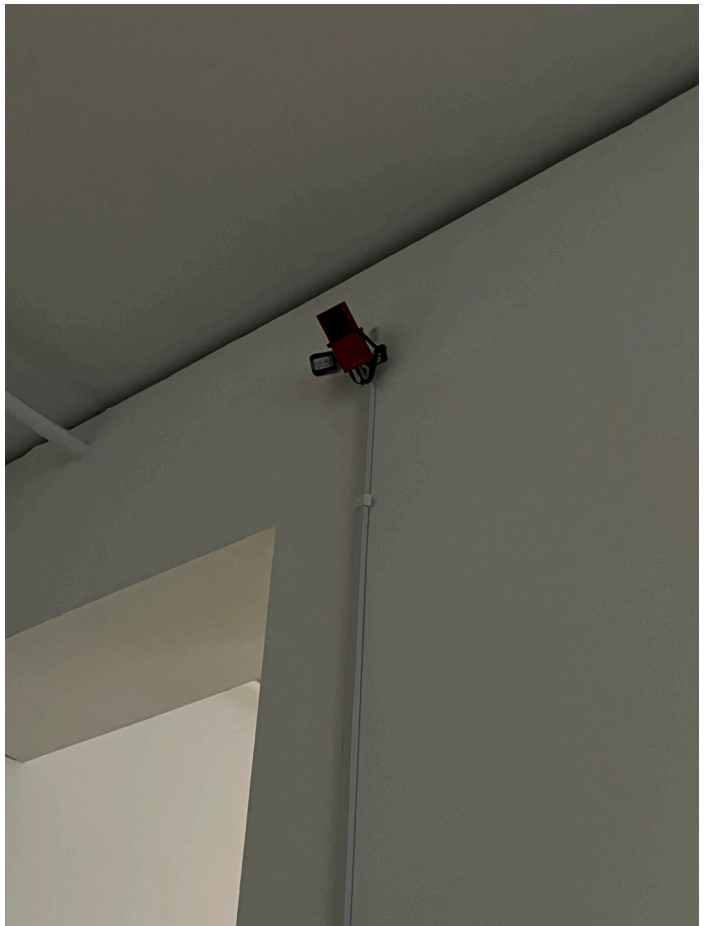
Artwork 1. Extant



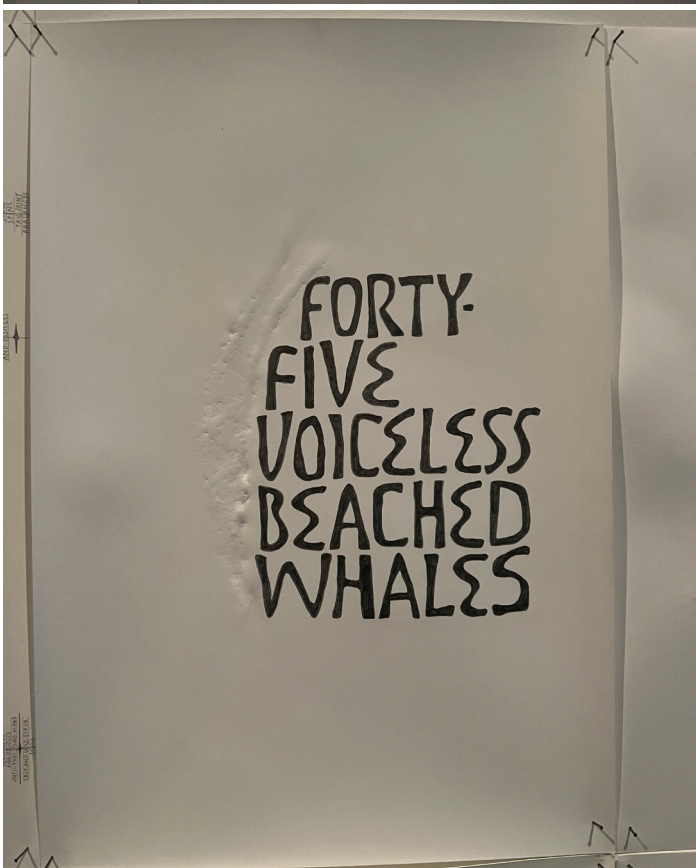
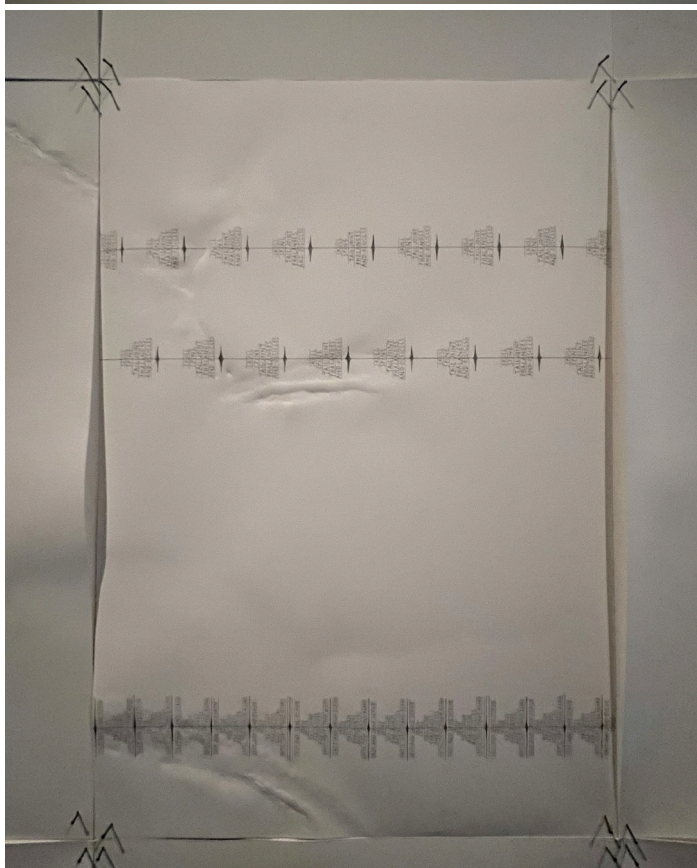
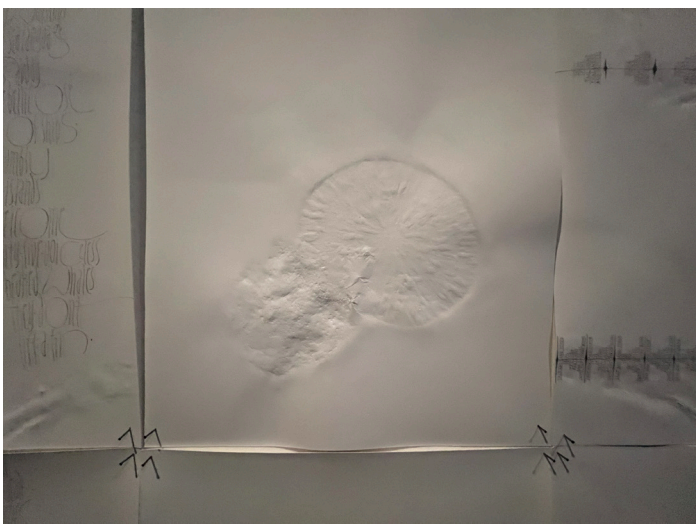
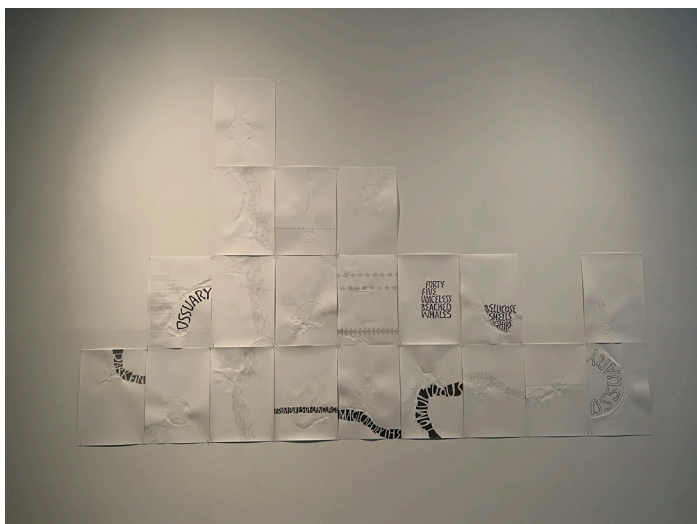
Exhibition room 2



Artwork 2. Ossuary



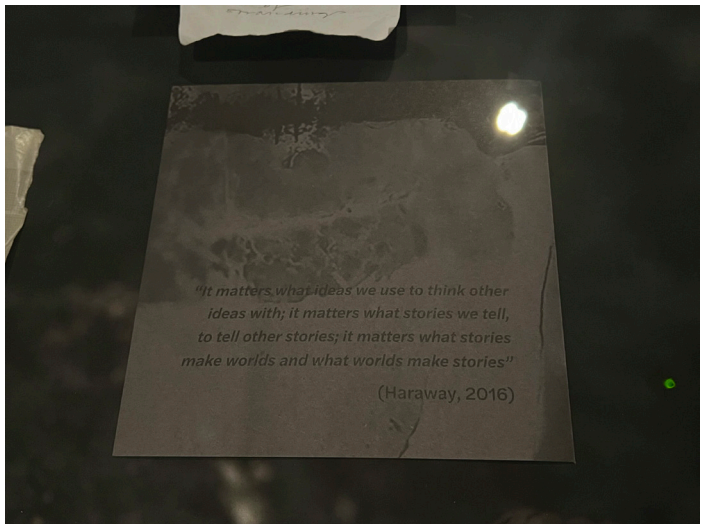
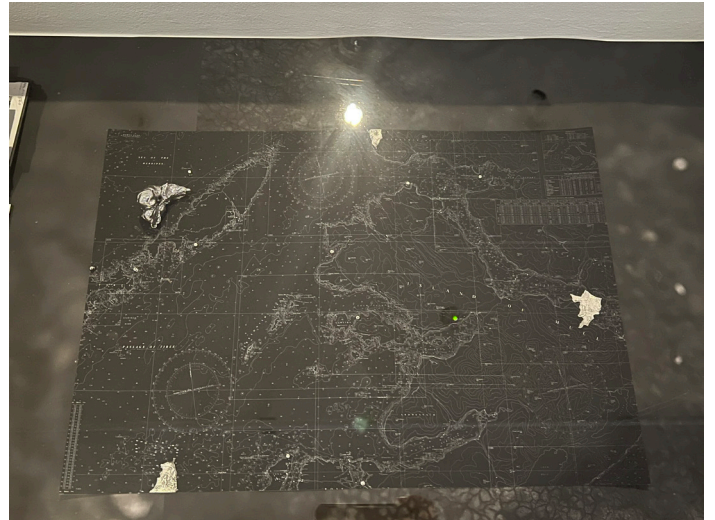
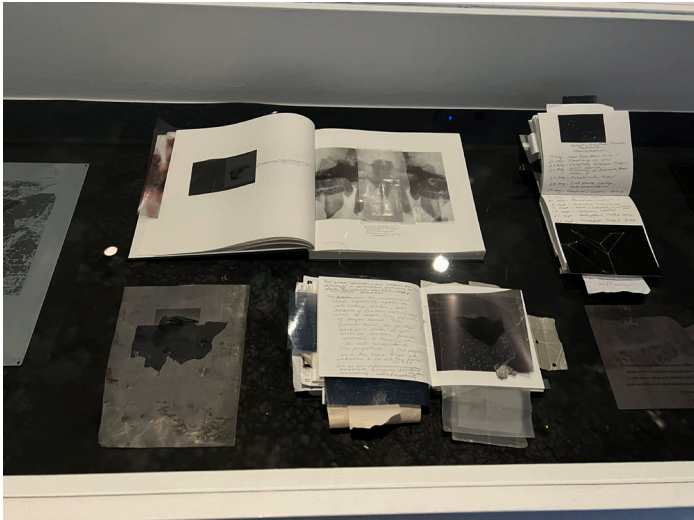
Artwork 3. Ossuary



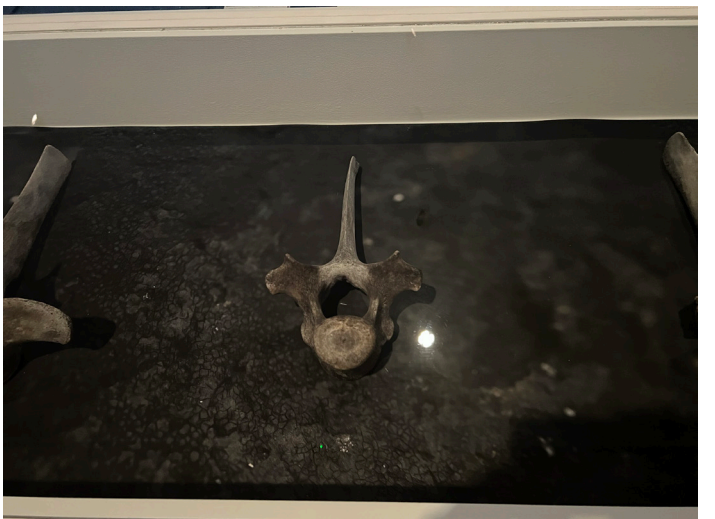
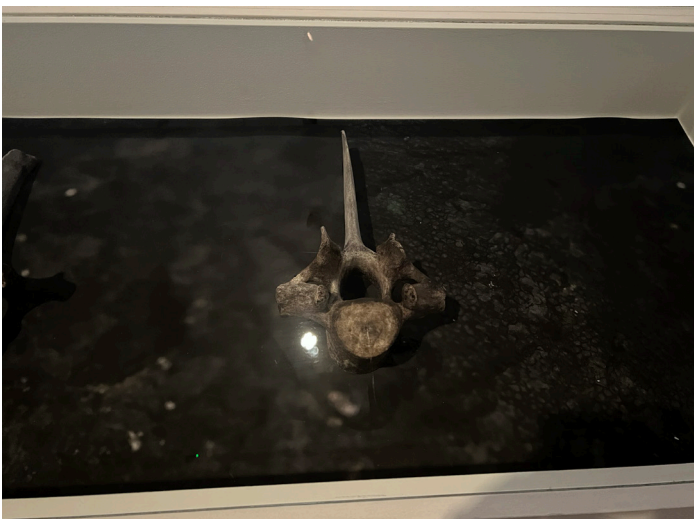
Artwork 4. (i) and (ii) vitrines



Artwork 4. (i) Project Research 2020/21



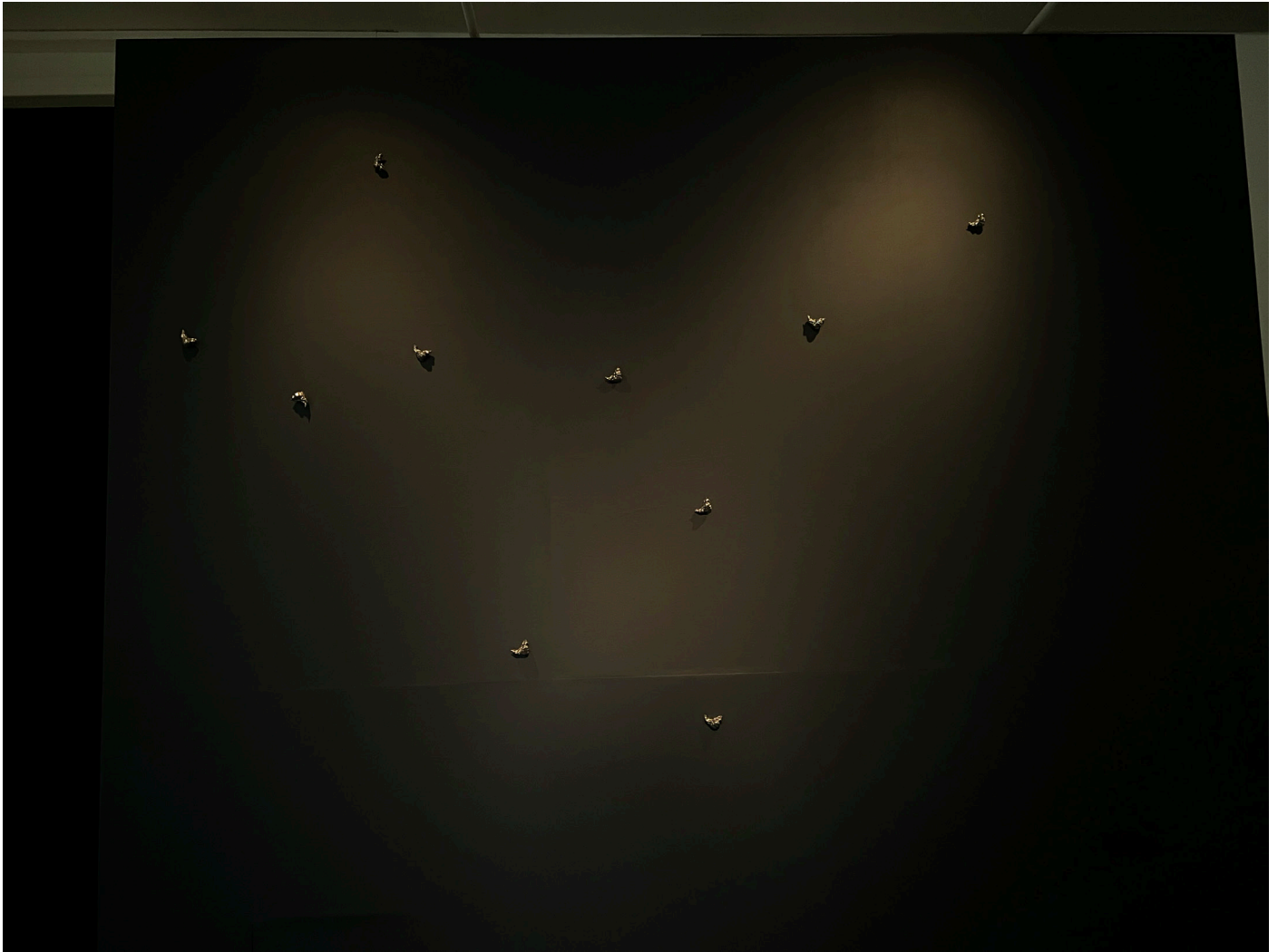
Artwork 4. (ii) Project Research 2020/21



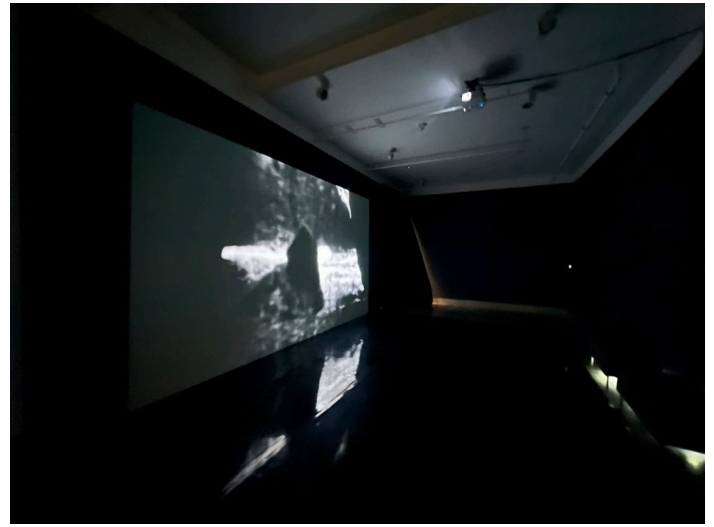
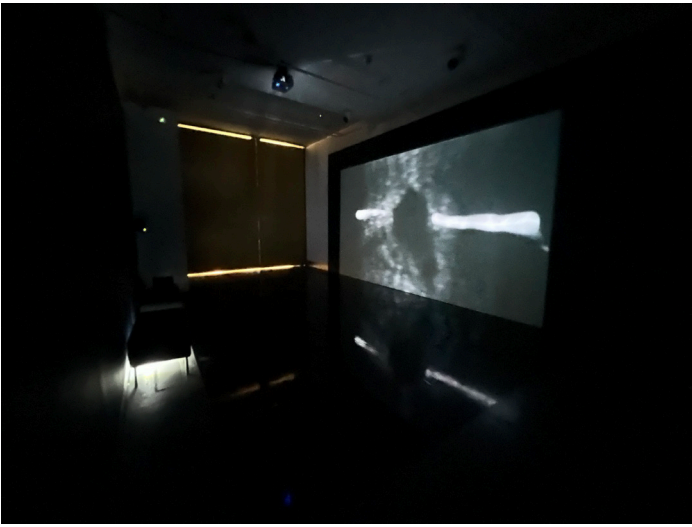
Artwork 5. Listening Station - On Sonorous Seas Podcast



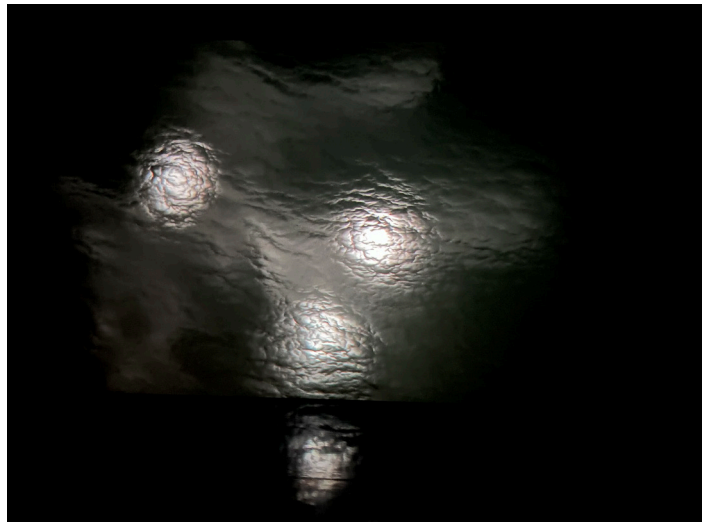
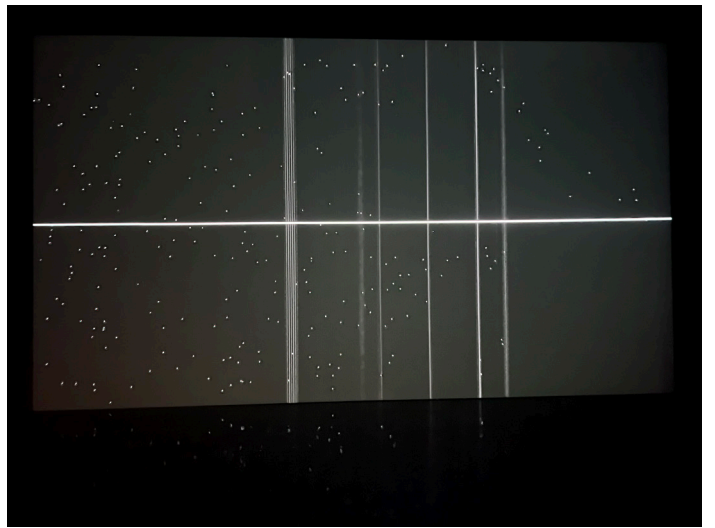
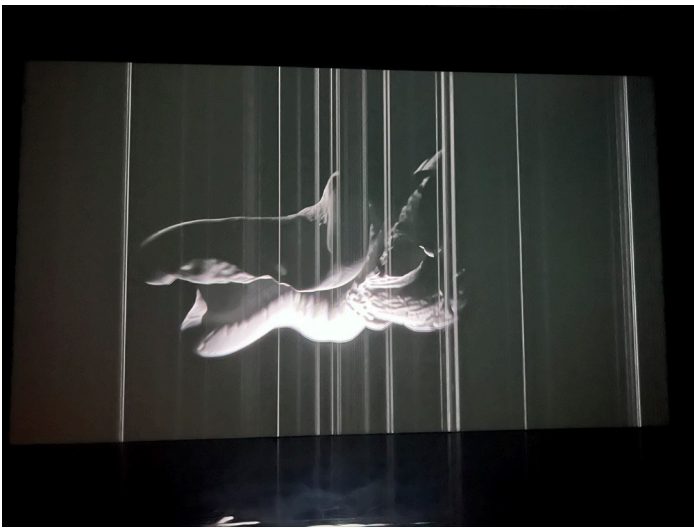
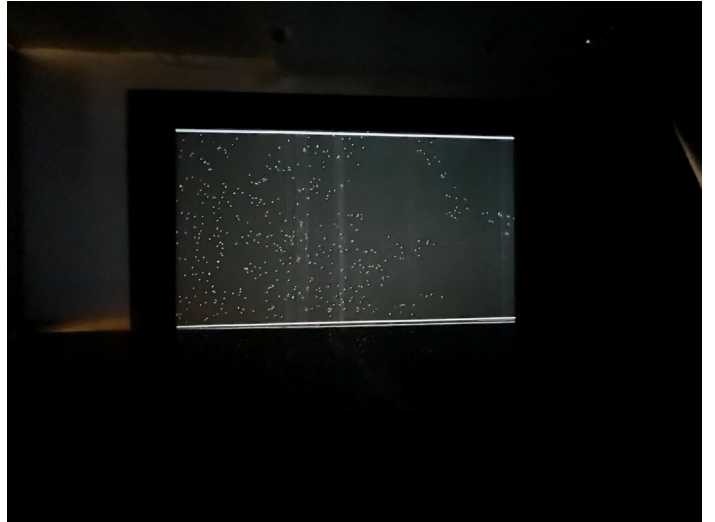
Artwork 6. A Constellation of Strandings



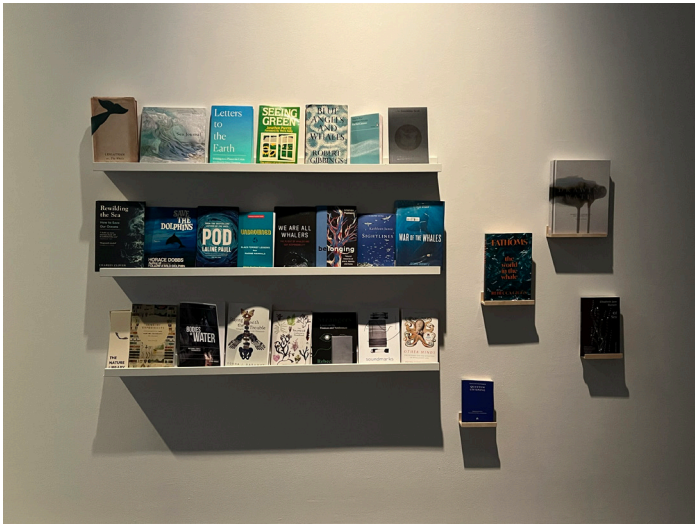
Exhibition room 3



Artwork 7. A Constellation of Strandings

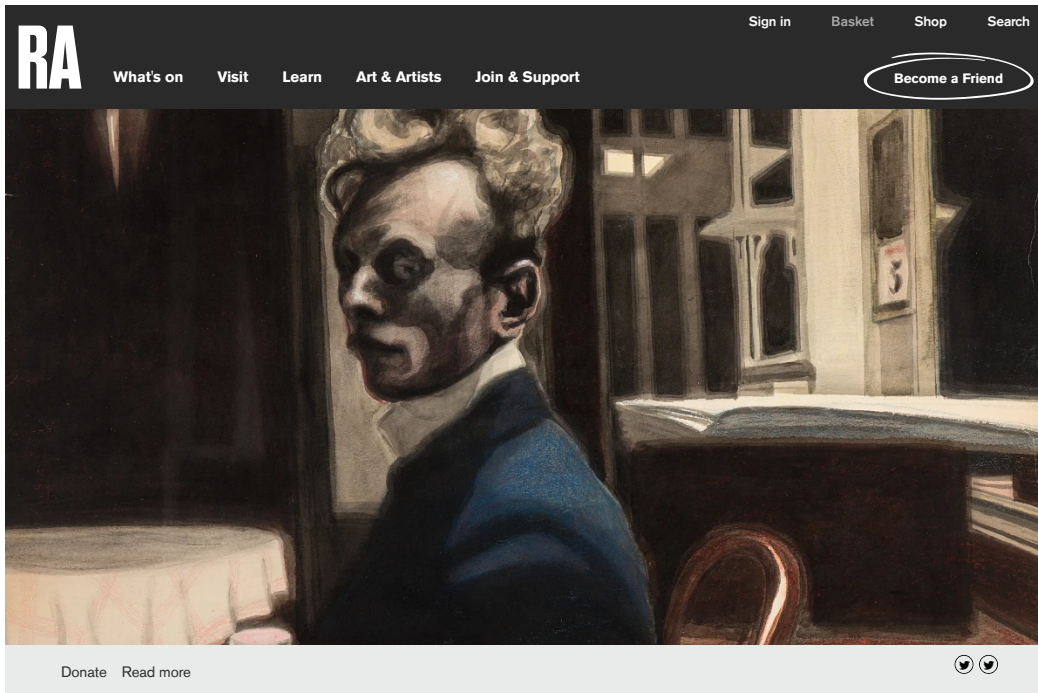


Artwork 8. The Nature Library



B.3 Online exhibition materials

B.3.1 Video: 'Léon Spilliaert' - virtual exhibition tour, Royal Academy of Arts



Video: 'Léon Spilliaert' - virtual exhibition tour

By Tiffany Greenoak

Published 21 March 2020

While the RA doors are temporarily closed, you can still experience our exhibition on Belgian artist Léon Spilliaert in this video tour of the galleries.

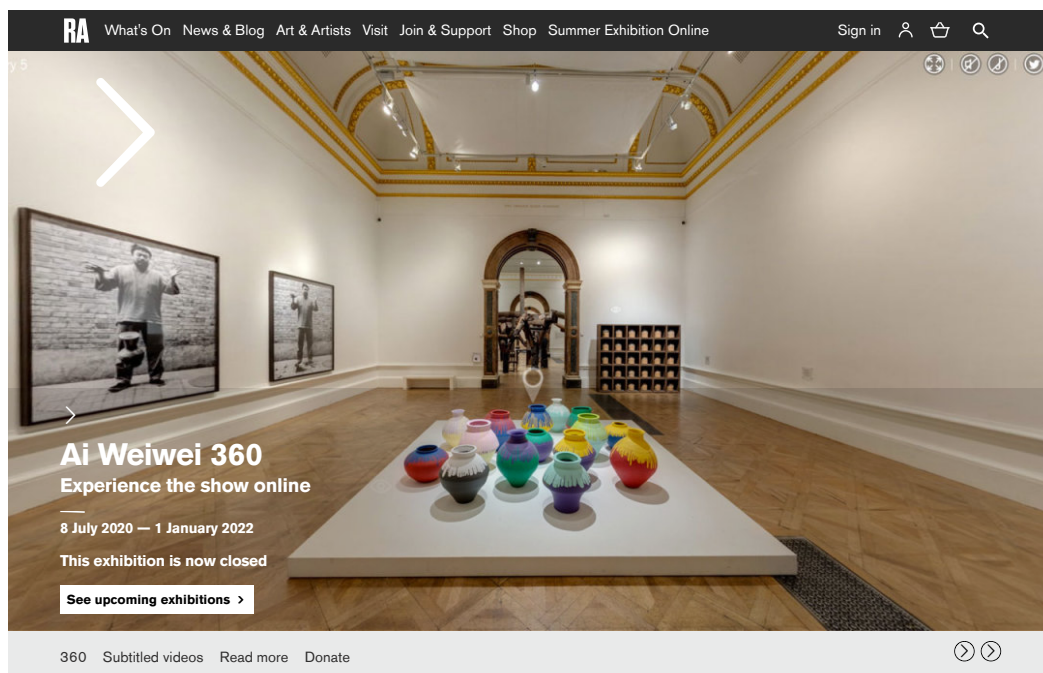
Video



Léon Spilliaert (1881–1946) was born in the coastal town of Ostend. He moved to Brussels at the age of 20, and would live and work between the two cities for the rest of his life. Self-taught, he forged his own artistic identity, which was shaped by the affinity he felt with writers and thinkers such as Edgar Allan Poe and Friedrich Nietzsche.

This exhibition showcases some 80 works on paper – from images of Spilliaert's home town and the coast, to later works capturing the tranquillity of the forest outside Brussels. Explore these works online in this video tour.

B.3.2 Ai Weiwei 360, Royal Academy of Arts



Ai Weiwei at the RA was the groundbreaking cultural phenomenon of 2015. This immersive digital tour is a chance to revisit the seminal exhibition, or experience it for the first time online.

An earlier version of this page was published in January 2016.

Take an immersive tour of the galleries from anywhere in the world, accompanied by commentary from the exhibition's curators and interviews with the artist himself. Feel free to explore our galleries at your own pace, and in any order you choose.

With a voiceover from Channel 4 News anchor Jon Snow, the tour consists of navigable 360° imagery, video and audio channels. A huge range of specially-created video helps to uncover the meaning, context and technical detail of Ai Weiwei's work.

The first exhibition to be captured in photorealistic stereoscopic 3D, Ai Weiwei 360 is available on desktop, tablet or smartphone, using just an internet browser.

8 July 2020 — 1 January 2022

Commissioned by The Space and the RA.

Online exhibition.





• THE SPACE •

Enter the experience - click the arrow below



B.3.3 Love in a Cold Climate, Michael Curran (2002), LUX

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[LUX](#) » [Events](#) » [Online Exhibition](#) » [Love in a Cold Climate, Michael Curran \(2002\)](#)

Online Exhibition

Love in a Cold Climate, Michael Curran (2002)


19 December, 2022 - 4 February, 2023


To mark the Winter Solstice LUX presents Michael Curran's 2002 feature length film *Love in a Cold Climate*, a highly personal meditation on coldness and love. The film was the last work to be produced at the former Lux Centre, and was completed even as staff and furniture were being removed from the building. Produced in a time before widespread access to the internet and just before the introduction of the iPhone and YouTube the film was painstakingly researched and developed through Curran's network of friends and contacts via letters and answerphone messages. Filmed on his camcorder, often with people he met in bars and nightclubs in the Shoreditch area in which the Lux Centre was based (itself on the brink of a massive gentrification and transformation which ultimately closed down the Lux) the film documents a strange transitional moment both in the city and in moving image culture.


Taking the form of a fractured journey the work explores notions of coldness, the act of storytelling and loneliness, all haunted by the spectre of Hans Christian Anderson's *Snow Queen*. Whilst seeking the actress Natayla Klimova, who played the role of the Snow Queen in Grennadi Kazinski's 1966 LENFILM production, the artist drifts through a series of episodic encounters which all strangely reflect upon his concerns. Comprised of telephone recitations, fairy story, chance meetings and weather changes *Love in a Cold Climate* emerges as an essay in love and longing.

Michael Curran was born in 1963 in Scotland. He studied at Goldsmiths College, London, Duncan of Jordanstone, Dundee and Jan Van Eyck Akademie, Maastricht. He now lives and works in London.

You can also read an [illustrated talk](#) that Michael Curran gave at the premiere of the film in 2003 at the National Film Theatre in London.







C. Participants' transcripts

C.1 Participant #1 transcript

14:00 1st Dec. 2022, GSA Reid Gallery, Method a).

00:01:00 Entering the space

So the first room is kind of empty with one middle piece at the centre. Em... there's a little bit about the exhibition. Uh, and... how the artist came to the idea for this exhibition. So that's really nice background information.

00:02:08 Artwork 1

Uh... I think it's the skull of the whale that stranded on the island.

00:02:20 Artwork 3

Okay, I'm now walking to the next room. [Hi]. There are pieces of paper with... words and poems. And... the way the words are put on the paper... looks a bit like waves.

00:04:31 Artwork 6

[Sigh] Um. [Pause]

So I'm now looking at the Constellation of Strandings. Uh... I like the fact that they used shiny materials because this look like really stars in the sky. And the fact that they represent ear bones are very... well fitting for this exposition because it's about sound. [Sigh]

00:05:44 Artwork 5

So I'm now at the listening station. I'm going to listen to the... podcasts I think. [Pause] Ok, so the podcasts sound very interesting, but I think they're a bit too long. Do you listen to all of them right here so it will be nice maybe?^{C.1.1} She can... Listen to them at home or online. [Scratching sound of putting earphones back]

C.1.1. P#1 commented: "I think I was trying to say that you cannot really sit there and listen to all of them during your visit at the exhibition because they are quite long, so I would be nice if you could look them up online and listen to them at another time".

00:12:42 Artwork 8

Em... I also see a nature library. All the books are about nature and sea. Uh... [Inaudible whispering] so... they look very interesting on the sea... for example, save the dolphins or war of the whales, I think this is really relevant. Since this whale stranded on the islands and nobody really knows why yet.

00:14:01 Artwork 7^{C.1.2}

Okay, I have to gonna... go through curtain. It's very dark in here. Uh... but I like the music. It makes me think of the ocean. [Pause] On the screen I can see, some very faint.. blob-like figures. It's a bit like when you put oil in water. I think the music together with the video make it a very relaxing atmosphere. I find it very calming. [Pause] I think you could definitely put this music on... uh Spotify or streaming service and people listen to it while studying or... at reading. It works very well. So...the image of the video changes a bit now. It's uh... a map. So I can see that Island of Mull. [Pause] I think the music is getting a little bit more intense. Add the visuals... have a bit more contrast so it feels a bit more dramatic. OK, so we can see now the map... of the islands very clearly. And it's also a bit bigger than before. You can read it better, for sure. [Pause] There are lot of... horizontal lines right now everything is gone. This gets a bit of a weird sensation to stand here because the lines are moving and... the music... makes you feel like something is going to happen. [Pause]

C.1.2. P#1 commented: "I don't know if this is relevant but I forgot to mention that I was standing in front of the screen and moved around in front of it during the entire time I was in this room, rather than sitting down".

00:23:15

Okay, so I'm back in the main hall again.

00:24:11 [Conversation with the invigilator]

Participant #1:

It's a very nice exhibition. Did you contribute to it as well?

Invigilator:

I mean I'm just the invigilator. How's the experience with gathering some research? Is it interesting?

Participant #1:

Yeah. It's interesting, yeah, I've never had to expressed my thoughts so directly, while experiencing the exhibition. So it's very hard to express in words... like what I have experienced, but I think it's very nice and I should really think about the whole experience as well for [inaudible content].

Invigilator:

Yeah, because I think a lot of things work on more and emotional level and they need a bit of processing. I understand.

Participant #1:

Yeah, exactly. Which is very nicely put together and this room is the next one, yeah?^{2:1.3}

3. P#1 commented: "No idea what I was trying to say here... I think maybe 'this room is the best one', referring to the dark room with the audio and video playing".

Invigilator:

Yeah, I absolutely love this piece. It's pretty meditative as well. It was a very sad. Story behind it. But I find it incredible that out of simple [inaudible content]... you can um... make something so beautiful and then yeah and teach people.

Participant #1:

Exactly because I didn't know about this before, so now I do.

Invigilator:

Have heard that very briefly, and also, there's the nature library to find really, really interesting. Really, some of their resources while invigilating here. Really extended my understanding.

Participant #1:

Oh yeah, if you come here like very often you. Can just take a look every of it.

Invigilator:

I took a picture of all the titles so probably will check them also after the exhibitions.

Participant #1:

Yeah, so you're a student here or not.

Invigilator:

Oh no, no I just got graduated. Are you a student?

Participant #1:

No, just a friend of mine, so that's why. OK, that's great yeah OK, well I think I'm going to go back with all the data. Nice meeting you.

Invigilator:

Nice meeting you.

00:26:20 Exiting the space

I yeah, I think everything is. Yeah Oh my goodness 26 minutes..

16:00 1st Dec. 2022, GSA Reid Gallery, Method a).

00:00:49 Entering the space

OK. You can see. Something in the middle of the room. I don't know if I find the sound very welcoming. I'm just reading the info paper now.

00:01:32 Artwork 1.

And after reading it, actually I'm... I feel like I'm part of the... or in the middle of an ocean. [Chuckled softly] Because I can't hear anything else. Other than the sound of maybe? Waves, kind of? The wave in the middle. And I liked how they play with shadows and how this coming part of the room. It's also strange to look through the curtains because I can see the [inaudible content] outside of the other building so. It's quiet. Weird to enter this place. Feeling like being in the ocean. And then. Having the experience actually seeing where I am in reality. If that makes sense. And I can also smell something. Which I cannot really define.

00:03:07 Artwork 3.

Now in the second room. Here's more about I don't know is it lemon? Kind of just... tropic fruits Is it? [Chuckled softly] Not sure? Going now to the wall. Just reading forty-five voiceless beached whales. Kind of interesting to see how it melts literally with the wide wall. I don't know why I go back to the curtains of the windows, but I can see people? Going outside, seeing the shadows coming into the room between like... the curtains. You can see the shadows... coming where I stand now. So I turned a bit around. It's so interesting because I stand now like a couple of centimetres in front of the wall. To read actually what's written. It's a poet poem. The grey letters. It's actually nice to see in the wall the... kind of bones, right? How it's... on the paper and then not. And how the nails go into the paper and represents somehow the... torture and the... I sometimes I just look at the words, just that some of them like welcome, island, shells, ships. Actually interesting 'cause it doesn't need much words to describe what's happening. And it's already written down that that is voiceless. Kind of a sad feeling coming up. [Chuckled softly]

00:07:18 Artwork 4. (i)

Now, I'm looking at the... kind of notes on the... books and the map.

00:07:55 Artwork 2.

I haven't realised before when I stood next to the wall that there was someone. Saying something in the background, but now... are reading the poem. I can't hear what they are saying.

00:08:24 Artwork 4. (i)

I think it's so interesting that I have to actually take a closer look at what is actually written down there, because it's so hard to see, but that's the actual point of it, right? That it isn't very visible what's happening. So it's really that I lean forward in a sense and... try to [inaudible content] try to capture. And I like the quote, 'It matters what ideas we used to think other ideas with. It matters what stories we tell to tell other stories. It matters what stories make words and words make stories'.

00:09:17 Artwork 8.

It's also interesting how now other people... kind of stood up and I... This led me on to move around again. Kind of stopped the moment I was in. So now I'm moving now to the wall where all the books are like... the blue ones. More colourful ones, so it's actually... well, kind of different colours now. How it is represented in the public like with this blue shiny covers of the books. Save the dolphins? It's kind of a different light to it, a different... feeling around when you just see the books. It's not that. But... yeah. It doesn't represent how voiceless it is, actually. I don't know why, but I look up [Chuckled softly] to the ceiling. 'Cause I turn around and now in the corner.

00:10:59 Artwork 6.

Kind of take a couple of steps back to look at the blue wall.

00:11:29 Artwork 7.

So I'm now... in the but the film [inaudible content]. Oh, it actually looks like I'm I cannot touch the floor 'cause it looks like... It's water. And I don't want to really come close to the left corner, because this sounds a bit... loud [Chuckle] I'm just sit here now and... that's better. Don't know if it's difference because everything is dark. And you just look at the... white colours. And you see kind of how it reflected on the floor... which makes it even deeper. [Chuckle] The more I look at it. It gets kind of a bit scary here. I don't know why I'm somehow feeling that I don't want to be longer in that room, although I feel quite comfortable where I sit. It's just that it's a bit. um... try to find the word. I feel like something is coming closer to me, but it isn't [Chuckle softly] 'cause I'm just looking at... the dots at the wall. The music is getting louder and louder. Look at all the squares that are on the wall. And I actually feel more comfortable because I see more of it and I kind of lean back. I feel better now. [Chuckle softly] Well, that's actually a lot. I feel somehow the wall is quite cold. And that's how I... feel? [Chuckle softly] Not very... safe somehow. And now everything disappears again and I'll just be... frame stay. And everything goes black again. Guess it starts from the start again. Ah the sound's good. I don't know, it's just have to feel... I feel that I have to move again like this. I stand up. Just walk around and... look at the bottom of the floor sorry. And actually see the reflections going closer to the screen. Someone came in. If would be still here,[Chuckle softly] don't know. Yes I am.

00:17:01 Artwork 5.

But I feel I should go. Oh, it's actually so different coming back now into the room of all the lights. Different music. So I guess I will just have a seat here. And listen to... [Pause]

It's a washing machine. [Chuckle] [Pause]

It's actually interesting to listen to all these... voices and at the same time hearing the sea in the background. And then it's again so weird to sit on one of these... kind of black things on the floor. But actually I feel I don't sit on it. I'm kind of in a different... I don't know. I feel I'm like... swimming or something because the sounds around me and all the words... about seas and dolphins and whales and. But for the first time, I just checked my recording that I looked at the time. I haven't done that before, so I'm kind of... interrupted by something I feel. I don't know if it's the. Light just above me or, but I look at it and it's like 2020, 2020, [chuckle] the time and... And I feel like I have to go back to take my phone and take a screenshot or to scan the QR code to actually listen to the podcast when I'm not surrounded by sea sounds. I feel like. I'll... just... oh it stops. So I will put it back the earphones and stand up.

00:23:16 [Conversation with the invigilator]:

Participant #2:

I actually have to come back and because I have my... I don't have my phone with me to scan it. So interesting. Yep yeah wow. Kind of an experience to go into that room with all these sounds and... And it's so different being the only one. In the room. You know, and when you came in, it was like, oh right. Yeah, other people. I woke up a bit.

Invigilator:

Do you enjoy their research?

Participant #2

I'm still on it, yeah? No, that's fine. I think it's great to actually have that opportunity to reflect on what's happening with me, while I'm going through it. So it's. We enjoy it, still in this moment of what do I see what? You know making sense of what I see what I feel. And to find words for it? Which I feel so difficult for me, as I'm not a native English speaker. So yeah.

Invigilator:

Yeah, but I understand it's... em... It's like the first scene of [inaudible content]. Little bit different. [inaudible content].

Participant #2

Yeah.

Invigilator:

And then I try to make sense out of it. I spoke to someone before it was also participating in the research. So and it's very interesting. They said something similar. You know, processing an instant trying to instantly make something out of it.

Participant #2

And it felt a bit felt... at first I felt uncomfortable entering the room. And then I sat down and everything was OK.

Invigilator:

Oh that's interesting.

Participant #2

And then I could see more on this kind of screen in front of me and it became more comfortable. You know. I was like OK. Well somethings going on and then at some point the sound changed around me or my feelings kind of responded in a way that... I Was like oh I have to stand up now. I have to move. So Interesting to reflect on it because usually I would. Be like OK? Well. Go to the next room, you know. But now having this opportunity to actually reflect on it, it makes me think like, why am I now standing up?

Invigilator:

Since that like moving of participators. That's interesting. I found this [inaudible content]. I haven't tried moving. Maybe I should. [Laughter]

Participant #2

Maybe you should. OK, that's now the last part right, I just have to go... OK. Just I will come back to you.

00:25:53 Exiting the space

Okay, I'm just moving out the room. Oh, coming to real life again. I'm trying to find ...you, and you're sitting here. And I can... stop maybe I don't know.

C.3 Participant #3 transcript with translation

13:20 2nd Dec. 2022, GSA Reid Gallery, Method b).

00:00:14 Entering the space and Artwork 1.

嗯... 我觉得... 我觉得就是进到展厅之后, 嗯, 会第一眼被那个鲸鱼的骨头吸引。我觉得一进到展厅之后你会先被这个鲸鱼的骨头吸引, 然后看到这个展览的介绍。然后我就会偏向于... 就是我会偏向于先去... 去绕着骨头走一圈, 然后想看到他打光的那一面。

Um... In my opinion... after entering the exhibition space... em... I would be attracted by that whale bone at first glance. I think when you enter the exhibition hall you will firstly be gravitated by that whale bone, and then saw the text introduction of the exhibition. And then I would like... just like... I will tend to... go and walk around the bone, and I want to see the side that gave it lights.

00:00:46 Artwork 2.

但是呢, 呃... 转一圈之后, 我会倾向于先靠右手边去把展览看完。然后所以我第二个... 第二个地点之后会走到这个第二个空间的这个开头。这边... 走到这的时候会听到一个人在说话。然后在说展览的内容。

But, uh... after walking around, I would like to finish the exhibition firstly on the direction of my right hand side. And then the second place where I went ... the second place I've been to was the beginning of this second space. This way... When I walked here, I would hear there was someone talking. And was talking about the content of the exhibition.

00:01:04 Artwork 4. (i) (ii)

然后我会再去看这个骨头的, 呃... 摆放啊, 然后他做的一些调查记录。还有就是关于他好像是说这个鲸鱼在大海里游了几个地点, 有点像, 但是他画出来有点像那个... 星座的那个。所以我觉得这个这个对比就是还挺空灵的。(Chuckle)

And then I would go see this bone again, uh... it's placement, and then some research record they did. And something they said about this whale swam in several places in the sea, which looks like... But the painting they drew seems like... something like the constellations. So I think this comparison was quite ethereal. [Chuckle]

00:01:29 Artwork 3.

然后后来我就会, 呃... 就是因为在这个空间里的时候, 其实很大部分会看到这个墙上的它的这个印刷, 所以我没有走过去看, 但是每次经过我都会看一眼。(Chuckle)

And then I would, uh... because when I was in this space, most of the time I would see/notice the print on this wall, so I didn't go over to look at it, but I looked at it every time when I passed by. [Chuckle]

00:01:41 Artwork 5.

然后返回来听他的这个录音, 然后是一些... 大海和..., 我当我我我我... 我以为会是一些, 呃, 像木板折断的那种撕裂噼里啪啦噼里啪啦, 就好像被折断的声音。她说是鲸鱼和... 呃... 海豚的叫声是嘛? 然后我觉得还挺... 就跟感觉离他们很近, 因为我确实没有这么近地听过。因为听到海豚在海上发出的声音是很尖的, 但它在海下是这样的声音的时候, 觉得还... 感觉有种沉静到这个海水里面的感觉。

Next I came back and listen to these recordings, and there were something like... the sea and..., I when I... I... I... I... I thought it would be some, uh, sounds like the tearing ticking of a broken board, like the sound of being broken. She said it was whales and... em...

the sounds of dolphins? And then I thought it was pretty ... it felt like (I was) very close to them, because I actually never heard it so close like this way. Because the sound of dolphins from above the sea should be very sharp, but when it is such a sound under the water, I felt that it was... I felt like I was still in this sea.

00:02:23 Artwork 7.

然后然后就进到这个这个放映厅。放映厅，我觉得很有意思是，他在这个地上铺了一个反光的板。然后我觉得人不太倾向于想走到玻璃或者是反光很强的东西上面，会有不安全感。但是这个板呢，跟它的这个...呃...他的这个影像又有了一个倒影的这种感觉。然后它会有些下雨...好像是水的声音。然后还会跟他的图像上面有一个互动，就会觉得好像这些水很有那种海浪离自己很近。

And then... and then I went into this screening room. The screening room, what I think was very interesting, was that they placed a reflective board on this floor. And I think people are less inclined to want to step on the glass or something very reflective, because they will feel insecure. But this board, combined with the... em... the image created a sense of a reflection as well. Then there was a bit like rain... like the sound of water. Then there was an interaction with the image, and it felt like the water or the wave was very close to me.

00:03:00 Artwork 8., 1. and exiting the space

然后我就会走出来看一下这个书然后绕到这儿再看一眼鲸鱼的骨头。然后再出来。就是这样。

And next I'd come out and look at the book, and I would go around and take another look at the whale bone. And then exited the space. That's it.

[00:03:08 Researcher's question]

你有没有觉得...某一件或者某几件作品...你觉得它想表达什么样的信息？

Have you ever felt about... a certain piece or pieces of work... What kind of information do you think it wants to speak?

00:03:15 Artwork 1.

意义是吗？嗯，我觉得第一个骨头其实非常吸引我。因为它首先第一是第一个作品，它在正中间，然后但是看到它的时候我会有一种就是...就是已经失...失去的这个感觉。因为他是个骨骼嘛，就说明生命已经不再了嘛。然后，而且他会调地很高，就是你能感受到这个东西可能原来很大，所以我会有一种比较...就整个进去心情很复杂吧，因为本来进去是很开心的。(Chuck1e) 然后结果，结果我看完展览之后可能有一种有怅然若失的感觉。就是在于这个展览的内容它本身可能想说的是...这个鲸鱼它在最后做了一些事情，然后它留下了什么。所以让我觉得...嗯...这个东西吸引我很大。然后给我一种比较...就是既触碰不到，它又离你而去的这种感觉。

What meaning they wanted to express, right? Well, I think the first bone actually appealed to me very much. Because first of all, it is the first piece of artwork, it is right in the middle, and then when I saw it, I had a kind of feeling like... it's just like... this feeling of loss. Because the it is a skeleton, which means that life is not alive anymore. And then, they lifted it up very high, that is, you can feel that this thing may have turned out to be very big, so I would have a kind of... it was a complicated feeling to go in, because I was very happy when I went in. [Chuck1e] And then... then it turned out, I probably felt a sense of loss after seeing the exhibition. Just talking about the content of this exhibition... which itself might want to say... this whale did something at the end of its life, and then what it left behind. So it made me feel... well... this thing attracted me a lot. Then it gave me a kind of... feeling that it was unreachable, and also a feeling of it is leaving you further and further away.

00:04:23 Artwork 5.

然后看完这个之后，呃…哦。第二个印象比较深的是这个听她讲…她的这些…呃… 就是声音的收集呀。因为…我的听力不是很好。对，然后的这部份我会觉得这个艺术家，她…嗯…对于…嗯这个事件，就是她的感情和她做的事情让我觉得还是挺佩服的。 然后…我会想要把这个声音都听一遍。 And then after seeing this, uh... Oh. The second most impressive piece to me was to listen to them talk about... these of their... em... the collection of sound. Because... my hearing is not very good. Yeah... then this part I would think the artist, they... well... about... well, this incident, like their emotions and what they did made me feel quite impressed. And then... I would want to listen to them all.

00:04:59 Artwork 7.

然后…然后就是这个…这个他的最后的这个电影。这个电影呢，我没有看完。 我觉得有点长。(Chuckle) 然后，嗯…我觉得就是有点单方面输出的感觉，就是它更…很…很艺术化。因为我没看完…我只看到中间就是他有一些像，呃…繁星点点的，然后会跟那个雨声，还有竖线的一些，就是视觉和听觉的一些结合，然后我觉得像是在表达他对这个整个事情的一个…一个理解。然后…但是我并没有办法跟他产生一个呃…就是共情，就…不是…就是互动。就比如说…嗯…我只是在听她表述嘛，对吧？

And then... and then it's the... the film in the end. About this film, I didn't finish it. I think it's a bit too long. [Chuckle] And then, well... I think it's a bit of a one-sided output feeling, that is, it's kind of... very... very artistic. Because I didn't finish it... I just saw in the middle there was something a bit like, uh... the stars dotted, and then it was with the sound of rain, and some of the vertical lines, like there was some combinations of visuals and sounds. And then I felt like it was expressing something like their understanding of the whole thing... And then... however, I cannot have a uh... kind of empathy with it, just... not empathy... em... it's like interaction with it. Kind of like... well... I was just listening to them expressing themselves, right?

00:05:48 Artwork 1. And exiting the space

然后所以我就看完之后就出来了。然后最后再看一眼骨骼，我觉得这个骨骼还是让我挺难忘的。

And then I just finished it and came out. Then I had one last look at the skeleton, which I think was quite memorable for me.

[00:05:58 Researcher's question]

你，你有一些有没有一些，就会觉得比如说你关注到一些。 展品之外，比如说有时候可能会走神，有时候会不自觉地看到一些灯光啊… 或者注意到各种各样别的东西？

You, do you have something... like something you noticed, in addition to the exhibits? For example, sometimes you might be distracted, or sometimes you might unconsciously notice something else like the lights... or other sorts of things?

00:06:22 Artwork 2.

那就是在这个第八个展项(actually 2)这儿的时候，因为你走到那，突然会有一个声音打到你，然后你就会找这个声音是从 哪来的？它是上面放了一个定向的那个声波嘛，然后就会看到天花板，觉得这个灯布的还不错。 然后我的吸引力就被这个天花板可能暂时的…嗯抓走了。 我觉得…嗯…

Well then that's when I was at the eighth exhibit (actually 2), because when you go there, and suddenly there's a sound hitting you, and then you would look for where this sound was coming from? There was a directional sound wave placed over there right? And then I looked at the ceiling and thought the light setting was pretty good. Then my attraction was temporarily... well, grabbed by this ceiling. I think... Yeah...

[00:06:54 Researcher's question]

有没有得到什么就是… 比如这个作品在讲什么样的内容？

Did you get something like... for example... what are the meanings of these artworks?

00:07:07 Overall reflection

我觉得还是…总体上还是比较常规的一个做法。就是首先他有这个主对象，我是不是…我觉得这不是一个普通…不能…

I think it's still... overall, it is still a relatively conventional exhibition. That is, first of all, there is this main object. Am I... I don't think it's an ordinary (audience) ... won't be like this...

[00:07:18 Researcher's response]

很学术，可以可以。

Very academic, yes, it can be.

00:07:19 Overall reflection

就是他是有一个主要展览对象，他有一个实体，这个东西肯定是非常有震撼力的。然后呢，到中间的时候…到中间的时候，他会有一些自己研究的一些片段过程，就会让你觉得对于这个事情的多面性吧，丰富性。然后还有就是有些人在为这个事情做出一些贡献，他们的发现。让它变得更丰富了。然后最后影像的展现让你更生动一点，我觉得就数据和他的图像就结合了，你再有点书你再回来看看。就是我觉得虽然小但是还挺全的，他的手法。

Well... it has a main exhibition object, which is a substance/physical object, and this thing must be very powerful. And then, when it comes to the middle... in the middle, there will be some materials of their own research process, which will make you feel the multifaceted and rich nature of this topic. And then there are still many people who are contributing to this thing, like their discoveries. Which makes it even more abundant. And then the final video piece makes you(/it) a bit more vivid. I think just the data and the image are combined. And there are also some books, that you can come back and have a look at them. It's quite small but I think it is quite complete... I mean... their the curatorial methods.

00:08:00 Overall reflection and Artwork 1.

嗯，确实我会觉得真实的东西还是更吸引我，就是一上来那个骨头，但是所有后面的这些内容会让我对这个骨头的印象越来越丰富，也就印象越来越深。因为他在从各种其他方面来让你有…对他有一个更加多质感的一个感受吧。因为他骨头一个大的一个结构之后，它上面的一些毛孔啊，你会觉得好像跟海里的那些气泡啊，还有那个海豚的声音啊好像是有关系的。嗯，就是我的感受，就个人感受。

Well, indeed, I think the real things/physical things are still more attractive to me, such as the bone at the beginning, but all the latter content will make my impression of this bone richer and deeper. Because it came from a variety of ways to provide you... a more textured sensations for it. Since after (seeing) a large scale of the bone, like the pores on it, you would feel as if they are related to the bubbles in the sea and the sound of the dolphin. Well, that's how I feel, just personal thoughts.

00:08:45 Overall reflection

嗯…然后我的感觉就是我不太理解这个展览里为什么会有两面墙。就可能是为了增加他的…因为这面墙是为了他的…这个这个屏幕嘛。但是这面墙我不是很能理解，他可能想要一个独立的空间来展这个骨骼。但是我觉得因为走到这儿的时候我会有，嗯，这…这面墙…这面墙是给他的展厅的，我从这儿进对吧？这面墙他因为要展这个骨骼，所以他可能需要一个比较独立的空间。但是我还是比较倾向进了展厅之后靠右手走。这个也是一个大数据，就是大家想…会有一个心理暗示吧。所以看

完之后我还是会倾向于这样走，所以他的其实展品摆放顺序也是按照这样来的。嗯…可能这个他有一个期望的回流线嘛，我不是很清楚。

Well... then I had the feeling that I didn't quite understand why there were two walls in the exhibition. It may be to increase its... because this wall is for its... the screen. But this wall (refer to the wall with Artwork 3.) is not very understandable to me. They might want a separate space to present this skeleton. But I think because when I came here, I was had a kind of... well, this wall... this wall is for the exhibition hall, I came in from here, right? Because they want to display this skeleton with this wall, it may need a relatively independent space. But I still prefer to walk on the right hand side after entering the exhibition space. This is also refer to big data, that is, people want to... there will be a psychological suggestion. So after seeing it (Artwork 1.), I still tend to go this way (walk to the right hand side after the artwork 1), so the actual exhibits displaying order is also referring to this. Well... maybe there is an expected return line? I'm not quite sure.

C.4 Participant #4 transcript

15:00 2nd Dec. 2022, GSA Reid Gallery, Method a).

00:00:03 Entering the space, Artwork 1.

So I'm just walking into your exhibition just now. So I'm just walking into your exhibition you've just given me a pen. So thank you very much. Em... and I'm just reading. First of all, I'm kind of thinking. It's quite a nice kind of dark space. It's quite kind of atmospheric when I've come into it. That's the first thing I notice. I'm not really sure if I'm allowed to be talking, but it's obviously it's your research, so I'm okay to be talking. I'm just going to read the thing on the wall. Wait a second. So that I understand what's happening a bit better. [Pause] The sound that I can hear as I'm reading this is really really soothing. It's quite immersive, I can feel already. So I'm quite excited about... I've got quite a lot of anticipation and excitement about what that's gonna lead... what's gonna... yeah, when I walk a bit further around, what it is gonna be like. [Pause and paper scratching sound] I like the way the first piece in the exhibition just casts some shadows onto the floor. That's one of the first things I've noticed. It was quite amazing just how the lights been positioned so it's casting lots of different shadows from the one piece onto the floor. The pieces like... it looks like some sort of... maybe like a whale or a dolphin skull. Em... there's... it's a beautiful sort of organic shape and it's suspended from the ceiling with... with them sort of metal threads. And there's lots and lots of different colours and textures. That's kind of... the texture is quite sort of em... like mottled almost?... like it's... and there's a kind of scene running up the metal that looks a bit like stitches as well. It reminds me a bit of... kind of some em... some kind of stitches, as if someone's had an operation or something. Em... and you can walk right underneath it as well, which is great because you can kind of see it from all angles em... And there's some bits when the skull as well that are sort of glinting em... a bit like diamonds or sparkles or something. Em... and then there's something underneath. There's like a... a bit of metal that's been etched with the words, 'Bellicose shells of ships'. Em... so that's interesting too. It's a good height so that you can walk right underneath it, and there's colours that are kind of... beige and grease and quite neutral colours, because it's like a skull. It's... it's the colours that you would maybe expect, but it also looks a bit like a piece of kind of driftwood or something that would wash up on a beach. So yeah, I'm going to move on to the next bit. Now I'm just going to walk round the corner. I can almost smell the sea, but I don't know if that's just because I'm immersed in the experience. There's some books, were talking about the exhibition a bit. [The sound of a pen writing on paper.]

00:05:02 Artwork 2. & 3.

I've come into the bit where there's more of a kind of soundscape, so you can probably hear that. And there's some pieces of paper on the wall. They are kinda look like they've got quite a lot of text on them, I don't know if it's kind of poetry or... em... it looks like poetry about... em... maybe whales and dolphins and that sort of thing. The paper's been kind of stamped as well with what looks like bones of maybe the... these whales and dolphins and kind of sea creatures. Em... this... it's almost like the paper's being kind of embossed with... [inaudible content] like kind of em... their kind of bones or their... natural kind of... em... yeah, maybe their bones, or just other sort of natural forms em...

They look quite organic. The shapes are really pleasing to look at as well. They're quite organic and the way that they catch the light again because they're kind of embossed onto the paper. One looks a bit like a jellyfish [Soft chuckle]. Em... and then there's other pieces of paper that have got the poetry written on them in different ways. One of them's kind of got a poem, but it's written in really tiny handwriting, so you almost think it's a pattern at first rather than text, but then when you look closely, you can see that it's a poem written into... to look almost like a pattern. There's quite em... again the text kind of matches up with the dolphin skull, what... the metal plate that was etched on the dolphin skull and the last bit of the exhibition. Em... so it says things like bellicose shells of ships, forty-five voiceless beached whales, it's quite poignant, I guess. I'm quite moving. Em... The music is really quite meditative as well. You... it really forces you to stop and kind of slow down. And just immerse yourself.

00:07:56 Conversation with the invigilator

[Sorry, I'm not talking to myself, I'm doing something for my friend. Yeah, so it's like just in case you thought... I did. Yeah... yeah... thank you.]

00:08:12 Artwork 4. (i)

Em... So then I'm just looking at the vitrines as well, so there's... a really lovely map and one of.... So I'll just go into the first one. And there's a map, em... and it's kind of got... looks like it's got different places in the world and maybe represents where some of these whales and dolphins maybe exist? Em... There's... em... they're kind of represented by these lovely sort of metal elements. They are kind of reticulated on the surface, so they've got this kind of lovely texture of silver, em... at different points. And then it looks like the artist's(/artists') sketchbook as well. Kind of different... different settings maybe? or... of whales and dolphins em... at different points like... [inaudible content]. Beautiful handwriting as well. Again, just lovely sort of poetic pieces of writing as well. Lots of nice textures, kind of patterns, almost like mapping the em... the journey of the... the whales and the dolphins. There's a kind of plate that looks like it's been etched, and then I've just noticed as well at the bottom of the vitrine it's... it's got a sort of burnt surface as well, so it's all kind of black and crackled at the bottom. So looks like it's been sort of fire damaged maybe? And there's some gorgeous kind of steel plates that have been printed with photographs and maps... relating to the work as well, so there's a photograph of the whale or the dolphin's head em... on the steel plate. [Pause]

00:11:16 Artwork 4. (ii)

There's some more... bones, I don't know if they're kind of castings or if they're actual... em... actual bones as well, but they're in the second the vitrine as well, and they're kind of lined up in a line. So they look like... kind of skulls again, or parts of skulls, but I'm not sure if they are. Em...and they look a lot more blackened than the first skull that we looked at em... at the start of the exhibition.

00:11:45 Artwork 2.

I don't know if you can hear that as well, but there's kind of... like as well as a sort of meditative music, there's kind of em... someone reading out kind of spoken word that you can hear. Can't quite make out what they're saying all the time, but I've got little bits of it.

00:12:18 Artwork 5.

I'm just gonna watch some of the videos now. [Pause] So there's a digital access point where it's got like sort of click to play. Em... but...unfortunately, it's not really working for most of them. But I'm just going to listen to one. Can hear sort of sounds of running water. [Pause] Sorry, that was quite a big pause for you. [Chuckle softly] So em...yeah, I feel like I've listened to the bit about Mhairi Killin, where she's talking about her em... the sound of the... of the sea and sort of understand a bit better, I can put into context a little bit better what the exhibition's about and I think em... that's kind of the sonorous noises that we can hear, and I guess yeah, they're just making me think of kind of em... let me just kind of have a think. What... I feel like there's a few different images coming to mind. I feel like floating em... kind of floating on air or water just with that kind of sound. It almost sounds quite... I mean, I'm not religious at all, but it kind of reminds me of sort of being in a church or something as well and just being... sort of, I don't know, just that kind of transcendent feeling maybe? that people maybe get from... from being... em... in a church or em... doing religious, whatever religious things they do [Chuckle]? Em... but I think for me it just... it reminds me of nature. Just I... I suppose... that's my kind of... yeah, it sounds a bit... silly, but like em... it's probably my idea of being in a church or whatever or... or kind of being religious as just being amongst nature and just the... the [inaudible content] and the wonder of it. So I guess that's what that music is kind of evoking for me, but em... and it's also intercepted with these sort of text-based things as well where they're talking about sort of poetry and things like that. And it's quite interesting. You can hear all the normal GSA noises going on, and amongst that, so that's sort of [Chuckle] breaks that up as well [Chuckle]. Em... but yeah. So I think I was quite interested to hear about various kind of interpretation. I mean, I don't know if I've kind of ruined the... the... the sort of experience for myself, but that's the way I quite like to access exhibitions I guess is to like have a look myself and then kind of learn a bit more after that but em... rather than reading it first of all and... kind of yeah.

00:18:11 Artwork 8.

And just looking at the nature library as well. So she's put together a lot of books. Em... all about kind of nature and the sea and kind of belonging and things like that, so I guess. Yeah, there's some that I'm really drawn to like The Seaweed Collectors' Handbook. Just cause it's got all these beautiful illustrations of plant life. That's what I'm really into, and that's what my sort of (Chuckle) I suppose my sort of practise comes in to. So yeah, it's quite nice to see. Some of that. Em... I'm just going to go into the last room now.

00:18:49 Artwork6.

Oh in fact, I've missed a bit. Em... so yeah, there's some... of these kind of, and again, these really appeal to me as I... sort of 3D maker, just cause they look like maybe the kind of objects that [Chuckle] I want to make for my project, but em... so they're basically there's a wall that's being painted, a lovely sort of rich navy colour. And then there's these brass objects that are really kind of abstract shapes so the one that I'm looking at kind of looks a bit like... What does it look like? Maybe like a fist or something that's kind of closed over with the fingers kind of folded over...and... Yeah, just I really just want to touch it, but I'm not going to cause it's an exhibition [Chuckle]. Em...you can see there's kind of hammer marks or tool marks on them as well. I don't know if they've been [inaudible content], cause they look as if they've maybe been cast out of brass or bronze,

but they're really really shiny as well. So those go right up the wall. It almost looks a bit like a kind of climbing wall as well because they go as I say, they go right up the wall. The wall's quite big. And there's lots of them at different intervals with it. It looks a bit like when you go rock-climbing [chuckle] at a rock-climbing centre or something. Em... but they're just really lovely shapes. One of them reminds me a bit of a heart as well maybe? Em... or some sort of org... like internal organ, but casting as I say, casting bronze are really shiny so... difficult to describe them, but I'm imagining they might be some sort of again, maybe part of the whale, but just like scaled down.

00:20:38 Artwork 7.

So I'm now gonna go into the last room. If I can find the bit to get in. Oh... oh, this is like a... [Chuckle] Sorry I made a really strange noise. This is like a sort of sound bath. Oh, it's so nice. I just wanted to stay in here. This is great. So I'm just sitting. It's quite dark. You can hear everything that's going on. Em... the floor looks quite shiny, I get cause it's dark, but there's a big screen up. That's like casting in this sort of almost like grey... kind of... and I can see a bit of a map. Sort of overlaid onto some sort of wave patterns that are kind of grey and white, em... and then that's kind of casting light onto the floor, em... and it's just really soothing to look at, and that combined with the music, it's just. Yeah, just really really nice. It's like... as I say, it's a bit like a... a sound bath. I've never had a sound bath, but... [Chuckle] but it's a bit... what I would imagine that was like. Em... yeah, it's just really really peaceful. Ah... [Chuckle]... yeah... That reminds me like I think you can sort of picture the different animals in the ocean. And kind of... you've almost got like the peacefulness, but also the kind of... the sounds... kind of evoking like although the... what I'm looking at is really peaceful with the kind of waves patterns and the sort of the map overlaid. Sorry, I'm getting like [inaudible content (fanaticised by the music?)]. Em... I think the sound kind of remind you that there's so much going on underneath the surface of the sea, maybe? Em... so it's kind of giving you that idea that although it's really nice and peaceful, there's so much nature and so much em... different wildlife and things going on. Em... just when you watch the individual waves as well, it's really quite em... trippy. [Chuckle] Just looking at all the individual sort of... it almost looks like you're looking under a microscope as well, just like the way the... the screen... like... I don't know if I described the screen very well, but it's kind of like... em... about the size of a cinema screen, so it's really quite big. And then you've got these beautiful kind of wave patterns coming in and out. And then, as I said the map laid on top of that as well, it's just... just lovely. I could sit here for a bit, although now I'm kind of getting a bit like I'm thinking of seagulls and birds and things... [Chuckle] Em... it's nice to look at it, kind of the way it moves on the floor as well. When the floor's all kind of glossy and it's picking up differently... Oh... oh wait, it's changed as well so now I can see the map better so the sea's getting smaller and smaller. Em...and it looks like a map of the Outer Hebrides, where the artist is looking at, so em... talking about the Passage of Tiree and can see different areas that I'd like to visit [Chuckle], the Island of Mull em...and places like that. Yeah, the map's beautiful and that looks like it's the same map that's been etched onto some of the other work with some of the metal pieces as well. Anyway, I probably should shut up now, cause I've probably talked a lot and that's probably hopefully that's given you a good bit of data. Hopefully that's helped. I'll speak to you soon. I'm going to go now.

Oh, the screen's gone a bit w... Oh... oh no wait. The screen's gone really weird, so now

it's like I'm gonna sit for a bit longer. Sorry you'll have to listen to me a bit longer, but yeah, the screen's gone weird and it's kind of like it almost feels like I'm on a train now. Em... so it looks like it's kind of going past... the window of a train and everything's... it's like these horizontal lines that are moving up and down. To be honest, I'm probably gonna be a bit sick. [Chuckle] Cause I.. em... I have really bad like vertigo. So [Chuckle] probably be a bit sick in a minute, but I'm... but yeah, just... it really just feels like I'm on a train. Oh my God, wow....ohhh... yeah and it's moving in and out. And it's... it's almost like a TV as well. That's kind of all fuzzy. Kind of... yeah, I think that might be a good place to stop [Chuckle]. Yeah. I'll speak to you soon.

D. Other observations and data analysis procedures

D.1 Observations and reflections on online exhibitions in some UK institutions from 2020 to 2021

Apart from the exhibition viewing process, there has been a substantial impact on creative art practice, curation, and art education. Research from the Centre of Art and Learning at Goldsmiths suggests that students and educators faced a series of challenges, such as the loss of emotive and empathic connections, lack of resources and physical materials and the altered scale of experience of others and artwork (Matthews, 2021). To find comfort within the discomfort, get used to and look for new methodologies for the online or hybrid study and the practice environment, they designed many activities and showcases using online platforms during the pandemic. Like the projects at Goldsmiths, during my MA study at the Royal College of Art (RCA), tutors and students tried to explore ways to increase connections during the lockdown. Many online workshops and other activities took place: hybrid and creative ways of using microphones, cameras and screens. On the one hand, the context made students more aware of communication method studies within the creative practice. But from another perspective, students who are comfortable with physical-making artworks as their practice faced more challenges during the pandemic.

I observed different pathways during the pandemic time in the School of Communication at the RCA, where most of the students explored their own adjustment to this new situation. Firstly, many students chose digital materials as their priority, as they claimed to adjust the art format by first considering whether their projects were suitable for online presentations or not^{D.1.1}. They thought about how their practice could take advantage of the limited medium choices. Secondly, many abstract and conceptual experiments appeared to discuss the materiality and physicality of technology. As mentioned, students suggested getting more aware of the medium and the communication method, so they practised to understand the digitalised material better. While lastly, when they tried to deliver physical materials, they did the project and took pictures of their works in their living space (generally with backgrounds of living rooms, bedrooms or gardens etc.)(Fig.52–54). Therefore, they presented the digital transformation of their physical artwork, such as a video or picture documentation during the presentation or showcase scenario.

D.1.1. Scoping conversation with Can Yang, RCA Visual Communication Graduate 2021, 2022



Figure 52, (left), *Solstice*, (Mollett, no date)

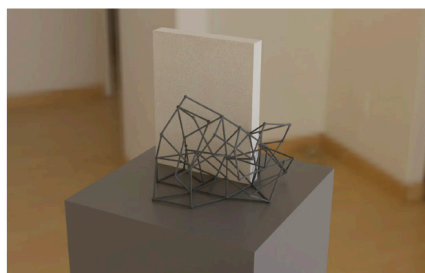


Figure 53, (up right), *Digital (I)imitations, Structural Embrace*, (Mounsey, 2020)



Figure 54, (down right), *2D to 3D, Polyfilla Collage*, (Johnson, no date)

The first online graduation show season took place in the summer of 2020. Educational institutions curated the graduation shows in a variety of formats. There were websites with student profiles and showcase pages [such as the RCA, The Glasgow School of Art (GSA)]. There were online websites, student profile pages, image documentation, video frames, text descriptions, etc. Also, it is worth mentioning that many online live performances and other events were held on social media during the summer of 2020 to create simultaneity and presence on the digital platform. Besides showcasing website pages, the University of Chester curated a virtually simulated showroom (CASA, 2021) with a 360° camera view based on a physical space, similar to some other exhibitions presented by RCA: Connection Lost (Hjelm, 2020) is a 3D video clip on YouTube based on the Dyson Gallery space in Battersea; and thumb (Aarvik, 2020) a video demonstration of the virtual exhibition tour. The two styles of exhibition curating can be artwork-oriented or experience-friendly. Still, similarly, they must present the artworks in a digital format (with the frame of images on the audiences' screens) with a limited range of exhibiting options.

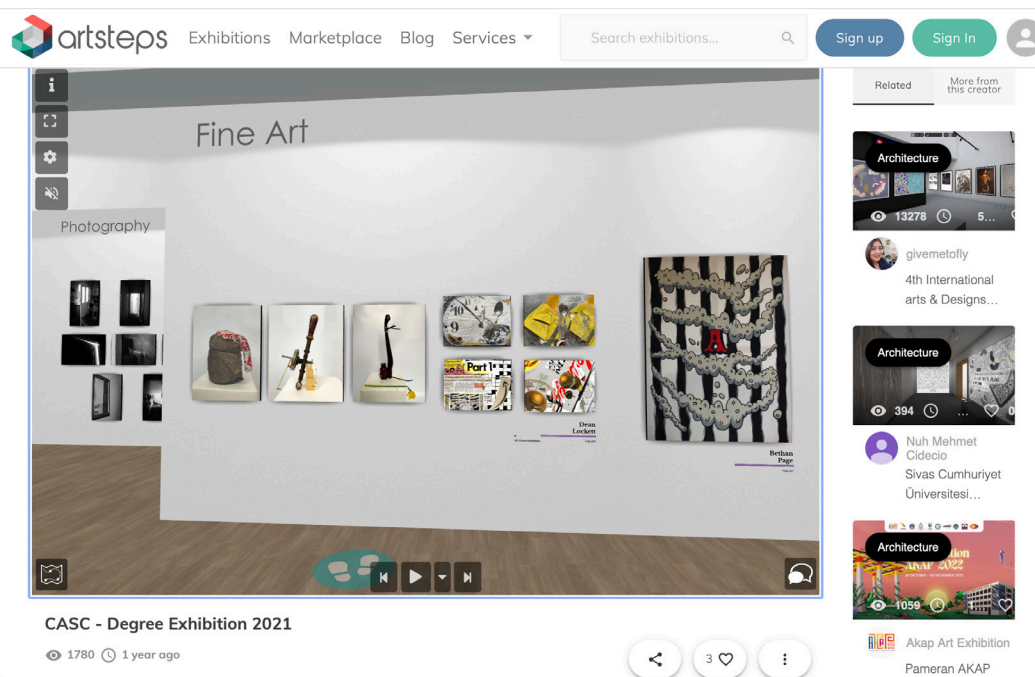


Figure 55, CASC - Degree Exhibition 2021, (CASC, 2021)

There were other approaches that exhibition institutions took during the period of pandemic. The Centre for Contemporary Arts (CCA Glasgow) put effort into online events to build up a website and host online events for people to interact with each other. They experimented on various online streaming platforms to improve the real-time communicating experience (Misick et al., 2021). The design logic changed to a screen-based, user-friendly method and switched the focus to engaging conversations with a wider community during the pandemic. Reid Gallery at GSA held a series of programmes on the history of GSA in a variety of formats and exhibited it on the online blog (Gsaexhibitionsjenny, 2020).

The online exhibition format could arguably be understood as the digital transformation or reproduction of the original artwork. We know that how we experience these online exhibitions differs from how we approach artworks in a physical presentation. This communication error made interpreters lose the time, space and authenticity that the

object was meant to contain (Benjamin, 2008). The objective 'cosmological time' was transformed into abstract and subjective 'phenomenological time' (Ricoeur, 2008). The physical artworks exist but are not in space anymore. It is not suitable for people's regular recognition habits to experience an object with a controversial sense of time and space. Such medium differences influence the properties of artworks themselves. From a Marxism economic perspective, the increasing number of commerce may cause the devaluation of the thing. Somehow the value of art objects shares the commodities, but it can be more than that (Heidegger, 2002). As Yoko Ono suggested in 'Painting to Exist Only When It's Copied or Photographed' (Ono, 1971), artists have had the same worries and confusion about reproduction and the devaluing of an art object since the implementation of photography. Or, more recently, David Hockney's iPad painting was designated to be presented on a digital screen in a gallery space (Royal Academy of Arts, 2021a). Why do we need to visit the Royal Academy of Arts (RA) to see the works in person, when we could look at a picture of the work on a personal device (Hockney, 2020), buy a printed version of the postcard (Royal Academy of Arts Shop, n.d.) or watch an online virtual tour (Royal Academy of Arts, 2021b). The technology offered us more comprehensive access to materials. But if we look deeper and try to analyse these various formats of materials, digitalised materials may simultaneously confuse us with their complexities (Thomson-Jones and Moser, 2022).

D.2 Four steps in fieldwork data analysis

Apart from the data analysis methods and their decision rationale introduced in the Methodology Chapter 3.3, which engaged with the 'Interpretative Phenomenological Analysis', the practical procedure of understanding the fieldwork experiential data went through four steps. Therefore, in this appendix section, I will demonstrate how the data were processed and analysed, and how the experiential themes in 4.2 were carried out.

D.2.1 Overall single-case analysis

The data analysis on the fieldwork participants' transcripts started from a single case analysis to get familiar with each entry. With the reflections from understanding the pilot data, I particularly paid attention to capturing those themes presented in 4.1.1, for example, the metaphor usage in describing art objects discussed (4.2.1.b); the uncomfortableness when talking about art (4.2.3.a); the power issue between artists and art viewers (4.2.3.b). Going through the individual experience benefited me from understanding what happened in each participant's scenario.

Other than these reflections suggested in understanding the pilot data, participants' responses were then categorised with the three aspects from the fieldwork activity guidelines (Appendix A.3): the sensations, meanings and meaning-making. Such classification allowed me to generally understand the relation and transformation process through the perceived sense data, mediated meanings and their first-person explanation about such causality and logical thinking. These reflections on the experience process of physical artworks were discussed in 4.2.1.a.

Following the general mapping above, I also found that the experiential pattern uncovered from the single case analysis somehow matched the pilot result mentioned in 4.1.1. Combining with my own theoretical perspectives, I positioned the physical art object as the real object (2.2.1), and the meaning of the art object as the real quality (4.2.1.a). This allowed me to locate the relevant individual interactions and relations with the art object in the matters of the 'Quadruple Object' and their ten possible links (2.2.1 and 2.2.2), and further developed the DTA 'Object-Oriented' Model (5.4.1). Due to the above reasons, I identified the 'Quadruple Object' in each participant's transcripts and then observed how those real/sensual objects/qualities were developed and transformed. These identifications rationalised and generated those experiential themes from each participant's experiencing flow, such as the sections: 4.2.1.a, 4.2.1.c, 4.2.1.e, and 4.2.1.f.

Finally, in this single case analysis step, I emphasised capturing participants' informal language usage, such as sighing and 'I don't know' etc., which may potentially be a sign of emotional and/or physical reactions (4.2.1.e). Furthermore, I noticed other themes based on reviewing individual transcripts, for instance, the role of text (4.2.1.d), and the trigger and procedure of body movements (4.2.2.c).

The analysing and note-taking example on Participant P#2's transcript will be presented at the end of this Appendix D.2 (Fig.56–58).

D.2.2 Divide into each artwork description

The second step for analysing fieldwork data was to separate each transcript based on artwork sections, with the combination of participants' traces of body movement on the printed floorplan in the fieldwork activity guidelines (Appendix A.3). Each artwork's description started from the point where the participant noticed the artwork, and finished before they saw the next one. The transcripts were presented in sections with the artwork titles and time stamps from their audio recording clips. In this case, together with the trace of body movements collected from section 4 in the fieldwork activity guidelines (Appendix A.3), I could observe several experiential themes, such as the variation and freedom of decision-making (4.2.2.c).

D.2.3 Cross-case analysis on each same artwork and visual effects

As I divided the participants' transcripts into sections in the previous step, I put the descriptions from different participants on the same artwork together in this cross-case data analysis. Combined with my multi-occasional experience and documentation in the fieldwork exhibition, I was allowed to compare participants' responses on the same curatorial setting, artwork and sensational effects. For example: P#2 and P#4 offered similar impressions of Room 1 just after they entered the gallery space (4.2.2.a). Same both participants described the different smelling data at Artwork 1–3. (4.2.2.b); and the inaudible sound of audio recordings helped establish the sense of the atmosphere at *Artwork 2*. (4.2.2.d). P#2 and P#3 expressed the feeling of insecurity when they saw the reflective texture of the floor at Artwork 7. (4.2.1.e). Such observations benefited me from understanding the certain fieldwork setting conditions from diverse perspectives, and generating those more implementable experiential themes for framework development in 4.3.

D.2.4 Writing up and mapping experiential themes under three perspectives

The discussion result on my speculative realism theoretical perspectives (2.2.3) and the development of 'the Layering Model' (2.3) introduced two main aspects: the thing and thing-related, and the beyond-thingness. Apart from those two aspects, during the continuous revealing of these fieldwork data, I was also aware that some participants' statements expressed the limitations of the fieldwork structure and data validation. Therefore, I then mapped out these sixteen experiential themes obtained from fieldwork data analysis, steps one to three, into those three perspectives (the thing and thing-related; the beyond-thingness; and data-collection limitation), and wrote them in discussion narratives that presented in 4.2.

should we talk about art?

Transcript: Participant #2
16:00 1st Dec. 2022, GSA Reid Gallery.

00:00:49 Entering the space

→ the researcher

OK. You can see. Something in the middle of the room. I don't know if I find the sound very welcoming. I'm just reading the info paper now.

Art work 1

Emo Reaction

Artwork 7

Action

00:01:32 Artwork 1.

And after reading (it) actually I'm... I feel like I'm part of the... or in the middle of an ocean. [Chuckled softly] Because I can't hear anything else. Other than the sound of maybe? Waves, kind of? The wave in the middle. And I liked how (they play with shadows and

how this coming part of the room) It's also strange to look through the curtains because I can see the [inaudible content] outside of

the other building so] It's quiet. Weird to enter this place. Feeling like being in the ocean. And then. Having the experience actually

seeing where I am in reality. (If that makes sense) And I can also smell something. Which I cannot really define.

presence Unsure about verbal description sense data & the limitation of verbal language

00:03:07 Artwork 3.

Now in the second room. (Here's more about I don't know is it lemon? Kind of just... tropic fruits is it?) [Chuckled softly] Not sure?

Going now to the wall. Just reading (45 voiceless beached whales) Kind of interesting to see how it melts literally with the wide wall.

I don't know why I go back to the curtains of the windows, but I can see people Going outside, seeing the shadows coming into the

room between like... the curtains. You can see the shadows... coming where I stand now] So I turned a bit around. It's so interesting

because (I stand now like a couple of centimetres in front of the wall) To read actually what's written It's a poet poem. The grey

letters. It's actually nice to see in the wall the... kind of bones, right? How (it's... on the paper and then not) And how the (nails go into the paper) and represents somehow the... torture and the... I sometimes I just look at the words, just that some of them like

welcome, island, shells, ships. Actually interesting 'cause it doesn't need much words to describe what's happening. And it's

already written down that ~~that~~ is voiceless. Kind of a sad feeling coming up. [Chuckled softly]

00:07:18 Artwork 4. (i)

Now, I'm looking at the... kind of notes on the... books and the map.

Action

00:07:55 Artwork 2.

I haven't realised before when I stood next to the wall that there was someone, ^{Noticing} saying something in the background, but now... are ^{Action} reading the poem. I can't hear what they are saying.

00:08:24 Artwork 4. (i)

I think it's so interesting that I have to actually take a closer look at what is actually written down there, because it's so hard to see, ^{action, viewing point} ^{Appearance} but that's the actual point of it, right? That it isn't very visible what's happening. So it's really that I lean forward in a sense and... try ^{unaware & sure} ^{action, viewing point} to [inaudible content] try to capture. And I like the quote, 'It matters what ideas we used to think other ideas with. It matters what ^{text info} stories we tell to tell other stories. It matters what stories make words and words make stories.'

00:09:17 Artwork 8.

It's also interesting how now ^{people in space} other people... kind of stood up and I... This led me on to move around again. Kind of stopped the ^{action} moment I was in. So now I'm moving now to the wall where all the books are like... ^{po} ^{SA} the blue ones. More colourful ones, so it's actually... well, kind of different colours now. How it is represented in the public like with this blue shiny covers of the books. Save the dolphins? It's kind of a different light to it, a different... ^{Emo Response} feeling around when you just see the books. It's not that. But... yeah. It doesn't represent how voiceless it is, actually. I don't know why, but I look up [Chuckled softly] to the ceiling. 'Cause I turn around ^{Action} and now in the corner.

00:10:59 Artwork 6.

Kind of take a couple of steps back to look at the blue wall. ^{Action, change view point}

00:11:29 Artwork 7.

So I'm now... in the but the film [inaudible content]. Oh, it actually looks like I'm I cannot touch the floor 'cause it looks like... It's ^{Material & arte appearance → behavior.} ^{metaphor.} water.] And I don't want to really come close to the left corner, because this sounds a bit... loud [Chuckle] I'm just sit here now and... ^{SO} ^{movement resisted by curating space} ^{SA} ^{Action} that's better. Don't know if it's difference because everything is dark. And you just look at the... white colours. And you see kind of ^{Appearance SA} ^{Appearance SO} how it reflected on the floor... which makes it even deeper. [Chuckle] The more I look at it. It gets kind of a bit scary here. I don't ^{SA} know why I'm somehow feeling that I don't want to be longer in that room, although I feel quite comfortable where I sit. It's just that ^{Emotional reactions} ^{ER}

Transcript: Participant #2

it's a bit um... try to find the word. I feel like something is coming closer to me, but it isn't [Chuckle softly] 'cause I'm just looking
Appearance

at... the dots at the wall. The music is getting louder and louder. Look at all the squares that are on the wall. And I actually feel more
RQ → SQ *RD* *ER*

comfortable because I see more of it and I kind of lean back. I feel better now. [Chuckle softly] Well, that's actually a lot. I feel
Action *ER*

somehow the wall is quite cold. And that's how I... feel? [Chuckle softly] Not very... safe somehow. And now everything disappears
SQ *ER* *Appearance*

again and I'll just be... frame stay. And everything goes black again. Guess it starts from the start again. Ah the sound's good. I don't
Appear *Appearance/SQ*

know, it's just have to feel... I feel that I have to move again like this. I stand up. Just walk around and... look at the bottom of the
Action

floor sorry. And actually see the reflections going closer to the screen. Someone came in. If would be still here, [Chuckle softly] don't
people in space

know. Yes I am.
hesitate for action decision

00:17:01 Artwork 5.

But I feel I should go. Oh, it's actually so different coming back now into the room of all the lights. Different music. So I guess I will
Action

just have a seat here. And listen to... [Pause]

It's a washing machine. [Chuckle] [Pause]
SO / metaphor

It's actually interesting to listen to all these... voices and at the same time hearing the sea in the background. And then it's again so
 weird to sit on one of these... kind of black things on the floor. But actually I feel I don't sit on it. I'm kind of in a different... I don't
know. I feel I'm like... swimming or something because the sounds around me and all the words... about seas and dolphins and
text info

whales and. But for the first time, I just checked my recording that I looked at the time. I haven't done that before, so I'm kind of...
Action

interrupted by something I feel. I don't know if it's the. Light just above me or, but I look at it and it's like 2020, 2020, [chuckle] the
distruption

time and... And I feel like I have to go back to take my phone and take a screenshot or to scan the QR code to actually listen to the
Intention

podcast when I'm not surrounded by sea sounds. I feel like. I'll... just... oh it stops. So I will put it back the earphones and stand up.
Action

00:23:16 [Conversation with the invigilator]:

Participant #2:

I actually have to come back and because I have my... I don't have my phone with me to scan it. So interesting. Yep yeah wow.

Kind of an experience to go into that room with all these sounds and... And it's so different being the only one. In the room. You
 know, and when you came in, it was like, oh right. Yeah, other people. I woke up a bit.

