

Visual communication design as discursive language: Examining semiotic spaces through new-materialism

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Visual communication design as discursive language:

Examining semiotic spaces through new-materialism.

Brenda Duggan

September 2025

A thesis submitted in the partial fulfilment of the requirements of
Sheffield Hallam University for the degree of Doctor of Philosophy.

Candidate declaration

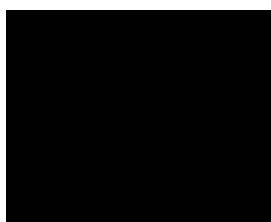
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4. The work undertaken towards the thesis has been conducted in accordance with the SHU Principles of Integrity in Research and the SHU Research Ethics Policy, and ethics approval has been granted for all research studies in the thesis, as shown in the table below.

Ethics review reference number	Title of research study	Approval date	Date of any post-approval amendments (if applicable)
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Abstract

This research begins by recognising that the stories we humans tell ourselves about our relationship with the world have become increasingly individualised, abstracted, and extractive, thus reinforcing a worldview in which humans are seemingly independent from the very systems on which we depend and contributing to the climate and biodiversity crises. Historically, visual communication design as a discipline has played a powerful and problematic role in creating just such stories. To make change, and create different narratives, this research examines ways in which visual communication design can act as a relational epistemology that 'does' in the world. It shows how to generate practices, stories and knowledges that are contingent, reciprocal, and affectively attuned to the world of which we are part.

This study develops a hybrid methodology for ontological visual communication design, building on the work of designers and design collectives whose practices attend to human and more-than-human complexity. Design is brought into dialogue with feminist new materialist and critical transsemiotic theory, and transdisciplinary alliances are forged with anthropology, archaeology and ethnography in developing 'designerly' practices through walking, drawing, diagramming, photographing, counter-mapping, writing and storytelling.

Through bringing into relation these specific theoretical alliances and 'designerly' practices, this unfolding research creates and tests the ways in which designers can work through a mode of knowing that is immersive, affective, and co-constitutive. The resulting practice acknowledges its entanglement with the world it seeks to engage and understand. Indigenous forms of knowledge, alternative epistemologies and modes of attunement and listening-in make possible the collaboration with more-than-human sensing and knowing whilst active, performative language-ing acknowledges the animated active partnerships in worlding ways of knowing.

This project moves visual communication design to become a relational worlding practice that listens with and can be in correspondence between human and more-than-human partners. It proposes that an ontological visual communication design is uniquely positioned to act not *on* but *with* and *in* the world as relational and implicated partner, and that this work is essential if we are to tell different stories in this time of climate and biodiversity crises.

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Please note: The full credits and sources for each figure are listed alongside each visual within the body of the thesis.

Chapter 01:

Introduction

Position and challenge, the overview

How we humans comprehend ourselves and our relation to the world is made by design. The stories we tell ourselves, the knowledges we make and the meaning-making that results are by design.

I have over 25 years' experience as a visual communication designer, researcher and educator and it is my assertion that this discipline has more to offer as a visual way of knowing – in the sense of a relational act between ourselves and the more-than-human world. I believe it has potential, in its transdisciplinary position, to join with other knowledges and methods as a meaning-making set of practices – to tell, to make, to correspond, to be involved in a story of relation in the world. This research makes the argument for an ontological visual communication design.¹ I draw on my experience in this field where, for me, it is becoming increasingly frustrating and untenable to confine visual communication design and graphic design within a narrow focus almost exclusively serving industry and economic growth.

Visual communication design operates at the visible spectrum of language – typography, image, colour, pattern – and these design principles are brought together in compositional space to make a story, information, forms of visible knowledge for meaning-making in communication. I contend that visual communication design is poised and is opening pathways to address complex, relational and existential questions for human living as a partner in a more-than-human world.

The argument I put forward is that the relationship to the story of human being as contingent and dependent *in* and *with* the world is broken; we humans are untethered as a relational partner in meaning-making for important worlding concerns. Humans have taken up the position of a main protagonist with a leading role in the world, thinking we hold all the agency. We narcissistically stand, front and centre of an increasingly de-animated world, when in actual fact we are part of the world we wish to understand.

¹ I explain in detail later in the chapter what is meant by ontological design.

The proof of this broken disconnected story is an unsustainable path and existential crises, as humans deplete biodiversity, remove carbon-based energy sources from the ground, leading to a warming world, which in turn has implications for the lives of all people and the planet, today and in the future (IPCC, 2023). In the *Shock of the Anthropocene*, Christophe Bonneuil and Jean-Baptiste Fressoz catalogue 'What humans are doing to the Earth', in stark statistics and fact (2017, 2). Climate change, this existential crises is happening, not because we lack the information, or we don't have and know the full story. We do – we know the world is heating up; the seas are increasingly experiencing heat waves, in which fish and plant life are struggling; sea level changes are rising (Demos, 2016, 17). We have the information, the knowledge, the story, but we don't perceive ourselves as a relating part of this story, this world (Irish Times, 2022).

There are many factors that affect this disconnection, but in this research the area of my focus, is visual communication design's role in perpetrating the disconnect and examining the ways in which methods of relational repair can be made. I will assert that this discipline is more than an ordering and structuring of knowledge and story, and that in fact it has a role in making and forming knowledge as a constituted visual and relational language within our world – to make and support stories in which we are partnered and entangled. I am asking: how will the discipline of visual communication design address complex, sustaining, incorporated stories and knowledge making, which places humans as contingent and constituted partners within the world and with their more-than-human co-habitants? I believe this can be achieved in building a methodology for ontological visual communication design that incorporates ideas of affect, performativity and distributed agency – through sensing, listening in as attunement to the more-than-human world we are part of. This will build practices, knowledge and stories for designers, students and researchers to act as dependent and incorporated.

Who is this research for

The aim for this research is to inform a new positioning for visual communication design, which addresses it as a visible language that actively 'does' in the world. It aims to aid ways of knowing and being as a visual epistemology in a relational world. This will allow design practitioners to be more 'response able',² in their tactics that are in correspondence within the world. The research that follows provides methodological tactics for visual communication design's move towards transdisciplinarity, to deal with complex ontological, sustainment³ and existential questions. I do this through building an argument for theoretical and methodological reconditioning that can deal with relational conversations and enable a correspondence that questions being human in a relational world. There are positive pathways opening up for visual communication design that are accounting better for the complexities, diversities and entangled messy relationality by readdressing the inter-dependency of place and matter, through decentring ideas of human, within the world.

'There needs to be a significant reorientation of design from functionalist and rationalistic traditions from which it emerges, to a set of practices attuned to the relational dimension of life' (Escobar, 2017, 206). This assertion by Arturo Escobar supports my specific examination of visual communication design, for being ontologically facing, where I will address attunement, affect and sensing, to constitute alternative epistemologies to form the new procedures, correspondences, practices and methods needed for visual communication design to become a performing language of relationality between human and world.

I will draw on both feminist new materialism theory and a critical transsemiotic position to interrogate how collective designerly practices entangle polyvocal positions and distributed agency in their designing practices. This informs my developing ideas of visual communication design

² Separating the word responsible to response able is taking cues from Donna Haraway in her use of *response ability* in *Staying with the Trouble* (2016).

³ This word is used by Tony Fry to distinguish from the sustainability as usual paradigm that I discuss further in ontological design, in this chapter (Fry, 2004, 155).

as a more referential practice within the world of which we are part, in forming alternative perspectives of story and knowledge creation. Our world is created through language, therefore visual communication design as the visual spectrum of language plays a significant role in creating meaning-making, as a performative ontological activity, inter-weaving relationality into knowing and being. In configuring a hybrid methodology, this allows visual communication practice and, thereby its practitioners, to be in conversation with knowledges and stories relational in how we live and be. This can importantly address our part of being in the world contingent within major stories of climate and existential crisis. This ontological design position, in turn, allows the discipline to assert an alternative perspective, so it can take its place to join as research with other knowledges – humanities, science and technology – bringing a visual epistemology in correspondence with these concerns.

In this research, I establish methodology for the discipline to be a transdisciplinary constituted partner. This will inform a new set of design practices that come together to form the stories we tell ourselves as co-partners in the world. I propose as a result that we can form communication partnerships with more-than-human co-habitants.

How this is achieved – Introduction to the chapters.

I have articulated the broad aims of the research, outlining the challenges and position of the discipline. I have stated what the research does and who it is aimed for. This next section serves to step through what each chapter will do in addressing these issues.

The aim of chapter 2 is to chart a movement of visual communication design from its modernist beginnings to its evolving direction as a transdisciplinary partner in designing communication. I do this in exemplifying design practices starting out where modernism effects communication as being objective, separated-out and rational. Through examples such as *Isotype*, the design of the *Univers* typeface and the *Swiss*

International Typographic Style, I discuss, how in the west at the early part of the last century we have told ourselves specific stories of being universal and individual. These are stories that emphasise a unified messaging, minimising ambiguity, and placing much under the umbrella of a grand narrative.

I then draw another path followed in parallel to the dominance of modernism through the 1980s and 90s that forge a feminist perspective. I discuss why practices in work such as Ellen Lupton, Jan van Toorn, April Greiman use visual communication to open out an argument as conversational and discursive, and how they acknowledge audience as participants in meaning-making.

These feminist starting positions inform the direction I move in the final part of the chapter, where I identify the potential of affective, sensory and polyvocal voices, as a way of knowing in transdisciplinary designing practices. These are through collectives that position human as decentred, as relational worlding partners in designing stories. The significance I want to outline here is how moving from a siloed modernist position to a collective, open and transdisciplinary practice identifies pathways forward for visual communication design to be a serious partner in making stories and knowledges as ontologically positioned. I identify practices where visual communication designing is decoupled from a human-centred perspective. In doing this, alternative more-than-human voices of concern are partnered in a designing practice. I do this in identifying the design collectives such as *Superflux*, *Marshmallow Laser Feast*, and *Forensic Architecture*, who offer examples of such approaches,. I reference too Kate Crawford and Vladen Joler's *The Anatomy of an AI System*, whose consideration of the precious earth materials in an information design project focus a relational conversation about value, human labour and economic structure. These practices set the scene for my argument in chapter 3, where I consider a theoretical positioning of feminist new materialism and a widened semiotic space, in establishing a relational ontological visual communication design.

Chapter 3 explores how I build a theoretical foundation of feminist new materialism and critical semiotics, which are informed by the practices at the end of chapter 2. I support this ontological designing direction through a discussion of the artistic and research practices of Yasmine Ostendorf-Rodríguez, Anja Wenger and Franca López Barbera as each manifest a closer listening-in and observing with and within the world of which we are part. I build on their work because they exemplify how matter matters, in their different practices and writing.

To make a hybrid methodological strategy for visual communication, in chapter 3 I establish the importance of feminist new materialism where I build from the writings of Jane Bennett, Donna Haraway and Karen Barad. I choose these theorists because in different ways they challenge the modern self-referential human-only perspective of knowledge creation and making.

They each focus on the emphasises of matter mattering, where I pay particular attention to a 'material-discursive' (Barad, 2017) position, outlining agency happens between things, allowing me to follow the argument that humans don't hold all the agency. Having established this, in the second part of the chapter I question where meaning resides in context to relational being in the world. Here I set out the theoretical premise of a transsemiotic, building perspectives in critical ways of meaning-making through the work of Deleuze and Guattari (2014). Central to my examination of this work on semiotics is their question as to why there can't be a meaning-making practice that reaches across from our regimes of signs (marks, symbols writings) into the semiotics with the worlding system of which we are part (2014, 137). The aim is to examine the regimes of knowing within which human exists, in order to question ways of meaning-making outside this human-only regime of knowing. By setting out these theoretical ideas of active performativity, material-discursive and an affecting interaction as knowing this informs my direction in chapter 4, where I consider the ways visual communication design methodology is underpinned in these

theoretical ideas for practice, and so establishing my basis in building a hybrid methodology towards an ontological visual communication design.

Having built this theoretical foundation, chapter 4 turns to my own practice and its concerns about joining disciplinarily affordances to make a hybrid methodology. I consider discipline and method in relation with designerly⁴ practices of visual communication design, questioning what methods need to be constituted with visual communication design. To establish this I put the discipline into conversation with anthropology, archaeology, and ethnography. This results in them each, in different ways, informing methods that arise from the affordances forged through these alliances. I examine walking as a research method because it operationalises performativity. Here I build on the writings of Tim Ingold, Stephanie Springgay and Sarah Truman that further contribute to the ideas established in chapter 3 of rhizomatic movements in the work of Deleuze and Guattari as a way of knowing (2014). Walking as a research method is supported through methods of designerly evidencing through visual capture extended in walking, seeing, writing in field notebooks, design research notebooks and moves into cataloguing. I discuss a critical cataloguing, a counter mapping, narrative and storyboarding as method, that are cut together for specificity in my method of questioning and my procedures for making an ontological visual communication design.

In establishing a new set of tools as method in chapter 4, the practice of chapter 5 is thus a place to try out how walking, sitting with and drawing can be threaded together for an ontological visual communication design practice. I am making these series of practices as training for an attunement into sensing, to be affected, within an ecology of happening. I start out in this chapter by making a walk with my father, a slow walking and knowing called *divining*, which, importantly, opens a question of distributed ways of

⁴ Designerly is in reference to Nigel Cross's distinction of design knowledge as different to both scientific and humanistic, outlining that it has its own epistemological grounding. 'Designerly' refers to a way of knowing that is synthetic, iterative and envisioning (Cross, 1982).

knowing – where agency is happening in an affecting space *between*. This then informs the ways I walk, sit and observe that manifest in a series of practices in drawing, tracing, photographing, touching in a cemetery – all of which enable me to pay attention to a distributed evidencing as an ecology of practice.

The practice discussed in *archaeologies of encounter*, chapter 5 has two main aspects – ‘actual’ and ‘virtual’, that are dependent parts of the same thing, but are prised apart as a way to examine them as material (actual) and immaterial (virtual) things. The *actual* encounter is a focus on a series of experimental walking and designerly practices to interrogate ways human is incorporated into worlding ways of knowing and being, where presence is required. This is about encounter as a correspondence ‘with’, examining what it means to be discursive in a place. The second part of this chapter, ‘incipient cartography’, is informed by the embodied materiality and evidence, which will become a speculative imagining to create new articulations and propositions in ways of knowing. This part of the chapter takes the material, actual correspondences with place to imagine mixes, cuts and new affiliations between human and more-than-human mark-making. Resulting from this chapter I have a series of counter mappings that I then use to revisit, in acknowledging the more-than-human partners.

In chapter 6, the conclusion, I revisit the more-than-human partners in the cemetery – lichen; head stones; sea-fossil inscriptions; chiselled epitaphs – to test out a widened repertoire in what is needed to practice as an ontological visual communication designer. Designerly practices and methods of drawing, writing, and photographing constitute with walking, tracing, sensing, feeling, touching allowing me assume an altered position – decentring my designers’ positioning, listening in as a sensing and affecting knowing, and distributing agency between me and my more-than-human partners. This conclusion demonstrates an opportunity to listen in to alternative more-than-human voice and understand that my own sensing is partial and relational. I do this in addressing ways of listening-in, and paying attention to durational temporality in the cemetery.

The final part of chapter 6 clarifies the context in which the research has been developed and to which its knowledge contributes to new methodological positions for an ontological visual communication design. This is one where human *being* is retethered as contingent and dependent – *in* and *with* the world. I articulated the main theorists and practitioners from visual communication design and other creative practices with feminist new materialism, and semiotics at the start of the thesis – chapter 6 establishes the situated place where these constitute framings are practiced as a relational knowing. In this methodological framing – interaction is an affecting intra-action, where agency is distributed more evenly between human and more-than-human.

Appendix as Visual Epistemology

The visual text in this thesis is selected from a large body of work, made up from many hours walking with field notebooks, sketch books and in a map room. The work selected for inclusion is only a small sample of this larger body of work but has been chosen as the clearest explication of key ideas, processes and methods. Visuals, marked as figures, are distributed throughout the body of the thesis and at the end I have put together three large format digital pages that allows an overview reading of these visualities as relational and in proximity to other models, sketches made. In making an appendix it is conventional to include other work not included in the body of the thesis, but here I have decided here to use the appendix to provide a holistic relational overview.

The appendix consolidates key visual elements into three large-format pages, enabling a processual and spatial reading as a visual epistemology, that situates the practices in proximity and relation to one another. Each visual is marked with its corresponding figure number from the main text, allowing for easy navigation and cross-reference. The purpose of this appendix is to provide a visual narrative that illustrates the evolution of the

design practices and their alignment with the theoretical positioning explored throughout the thesis.

Ontological Design, Ontology

The term ontological and ontological design are a central concern throughout this research. Before progressing through the thesis, I feel that it is important to clarify what I mean by ontological design and its relationship to the term ontological and ontology.

Ontology is the study of 'being'. Ontological design is the concerned with ways humans be and live in the world, through designing practice. Its significance is to think critically about the ways we link human and world together through design, be that the organizing of services, products, infrastructure, or communication. I will explain and expand on this perspective here, because it is intrinsic to my questioning this relationship for visual communication design as a discipline. Ontological positions, how we relate to each other, to the world and to nature are fundamentally grounded in this research.

Anne-Marie Willis makes the important statement '*we design our world, while our world acts back on us and designs us*' (Willis, 2006, 80). This speaks to the opening line in this thesis: how we comprehend ourselves and our relation to the world is made by design. Design is always 'acting back on us' – there is always affect and a reciprocity in designing. This is valid for making knowledge, story and meaning and therefore has profound questions of what kinds of worlds are being created through designing (Escobar, 2017).

Ontological design refers to the thinking about and engaging with design that affects all situations in which it is possible to embrace responsible action in the world (Fry, 1999, 29). Tony Fry points out that it is a project of sustainment rather than sustainability, that we need to engage in, changing

behaviour from a business as usual sustainability model. 'The sustainment...has to be a decolonial project. For this ambition to be realised *'there is a need to understand that dominantly our species is intrinsically anthropocentric and if we are to be futural this has to be taken responsibility for'* (Fry, 2004, 155). He points out the difference being *'a vital turn of humanity that acknowledges that 'to be sustained' requires other kinds of earthly habitation and understanding'* (Fry, 2004, 145). This connection between making and knowing and how it relates to being in the world forms the basis to this study. In finding an ontological design perspective we can examine perceptual, philosophical and practical shifts that allow an altering of relationality in the world.

This research concerns ideas in shifting the practices and methods of visual communication design to become a method to reach between human and more-than-human concerns, joining them in closer proximity, and making connections that concern how we are related within the world. I am interested in this idea of 'reach' as a connecting line; a relational retethering between human and world.

The particularity of being human, is an activity of being-in-the-world (Heidegger, 1962). Ways we are, what we do and how we know, are deeply connected as dependent action and experience, in the world. Human sits 'within a continuously unfolding field of relations' (Ingold, 2011 xii).

Ontology, in philosophical terms, refers to what it means for something or someone to exist, to be. Ontological design, therefore, attempts to consider how design makes and orders the way we exist in the world. Martin Heidegger's philosophical work on ontology, the concept of being-in-the-world (1962) has an impact for design. He uses the German term '*Dasein*' in reference to the experience of being that is peculiar to human beings. Being-in-the-world, for Heidegger, is always situated, always already caught up with the concerns of the world and with doing (Willis, 2006, 81). This idea of knowing, is a sensing that comes neither from the 'outside' nor from the 'inside', but arises from this 'being-in-the-world'.

Chapter 2:

visual communication design

Introduction

My research asks what theoretical, methodological and practice procedures are needed so that visual communication design can be a more relational discipline for living, being and knowing in the world. This chapter reviews the history of visual communication in order to understand its current legacy and to make clear the direction of travel that, in some respects at least, the discipline is taking. From this, the practitioners whose work offers clues as to the ways in which this might be done help me build a methodological grounding for an ontologically facing visual communication design. My twenty-five years of experience as an educator, practitioner and researcher in visual communication motivate the current project, generating the insights and frustrations which demand the change required for the discipline.

As a designer, I inherit the lineage of modernism, which developed visual communication design to offer a unifying message and to minimise ambiguity in the service of grand narratives of human-driven progress. I begin this chapter, therefore, with examples through practice, of how modernist visual communication design sought to be a universal language promoting unity and clarity. In this framing, such design intervened in the world to support a cohesive univocal messaging for economic growth, progress and security, promoting its methods and practice for industry and commerce.

The chapter then goes on to lay out what I mean by a *discursive* designing and why the *visual* in visual communication design, can mean much more than just to see (an ocular sensing.) This discussion allows me to argue that the discursive and visual can better account for the complexities, diversities and entangled messy relationality between human and world.

To establish the direction of travel this discipline can move towards – there are examples of visual communication design practices which offer more subjective, feminist framings, recovering a more open, diverse, and polyvocal legacy. The work of Shelia Levrant de Bretteville, April Greiman and Jan van Toorn is cited to support this discussion.

This plots a discursive direction in which emotion and sensing as knowing contribute to a visual communication design more opened to interpretation. Such communication situations require a listening-in to other voices and perspectives thereby opening out as argument. I look to Johanna Drucker's work, which allows me to position the visual as a knowledge producing task and to advocate for visual communication design as a constituting activity, where it joins with other knowledges and disciplines.

In the third part of this chapter, I give examples of designers I see as critical allies, where visual communication design is beginning to acknowledge the more-than-human as partner in making. Rather than individual designers, I cite collectives which take seriously the materiality of place, the environment and the more-than-human in the way they make stories through communication design. The nature of these practices is collaborative, happening between disciplines. These include practices where visual communication design is positioned at the front-end of knowledge production, between scientific research and data visualisation. They are constituting the knowledges of artists, musicians, writers, researchers gathering together as inter-disciplinary practitioners where planet and people, human and more-than-human concerns are co-dependent, relational and have existential concern.

I argue finally that visual communication needs to be a more ontological design and inquire into the procedures and the methodology needed to assume this reconfigured position. This chapter gives the contextual basis and a rationale for the theoretical and methodological direction I will take in the subsequent chapter.

What is modernism's influence on visual communication design

According to Jorge Frascara, the visual communication designer works on the interpretation, organisation and visual presentation of messages for communication (Frascara, 2004, 1). For him, the term 'graphic design' sits within this broader discipline of visual communication design, and can be described as a process, rather than it being product or object orientated. He calls this a '*communication situation*' (13). Ellen Lupton refers to graphic design as '*any mode of human communication that employs visible marks*' (Lupton, 1996, 12). In this research I will refer to visual communication design as a visual language because of its role of interpretation. '*Language can be understood inclusively rather than exclusively. Words, images, objects and customs, in so far as they enter into the process of communication...participate in the culturally and historically determined meaning that characterizes verbal language*' (Lupton, Abbot Miller, 1996a, 65). Its broad defining attribute, though, is its production of visual objects aimed at communicating messages, having impact on a public's knowledge. The development of graphic design and visual communication comes out of this forming of a rational universal visual language. This translates in graphic design practice as the development of fixed and stable rules for layout of information, hierarchy, grid systems and modular size and structures in typographic design, in order to achieve unity, clear coherency and presentation.

In the early part of the 20th century, Europe was in economic and political turmoil and everyday life was precarious. Visual communication played its part, in graphic design terms, by counteracting this – providing a certainty and clarity in layout and clear type in messaging. Modernism, through a universal, objective design language performed a consolidating role, attempting to defer politically the fragmentation of Europe. It connotated a holding together, adhering to a certain framing that, epistemologically, suggested ideas as reliant, factual and even truthful. This was a language of form, emphasising a thinking about visual communication objects as things – an identity, a message, an image – as entity orientated.

The Bauhaus, under the directorship of Walter Gropius, evolved towards practical concerns about how design problems could be solved, as he repeatedly advocated that '*form follows function*' (Meggs, 2016, 351). Typographic development was systematic, exemplified in Herbert Bayer's design proposal for Universal type, Figure 2.01, simplified and functional. These developments influenced the emergence of the International Typographic Style, based at the Basel School of Design, Switzerland, where Adrian Frutiger designed the Univers typeface, formal, functional, and clear, with a modular format of differing weights and size, Figure 2.02.

Joining the Basel School of Art in 1947, Emil Ruder was an important proponent of the International Typographic Style, adhering to formal structures in abstract geometric play and composition (Meggs, 2016, 402). His experiments and iterations in design principles for compositional layout, hierarchy, figure and ground, pattern and layering in type and shape, remain an important legacy in contemporary design education – Figure 2.03, 2.04, 2.05. These design principles stabilize and fix a formal approach to the text and its unifying grid, standardizing a schematic use in typographic layout.



Figure 2.01. Herbert Bayer's proposal design for Universal Type, 1924 in Meggs, P. (2016). 6th ed. Meggs' History of Graphic Design. P397.

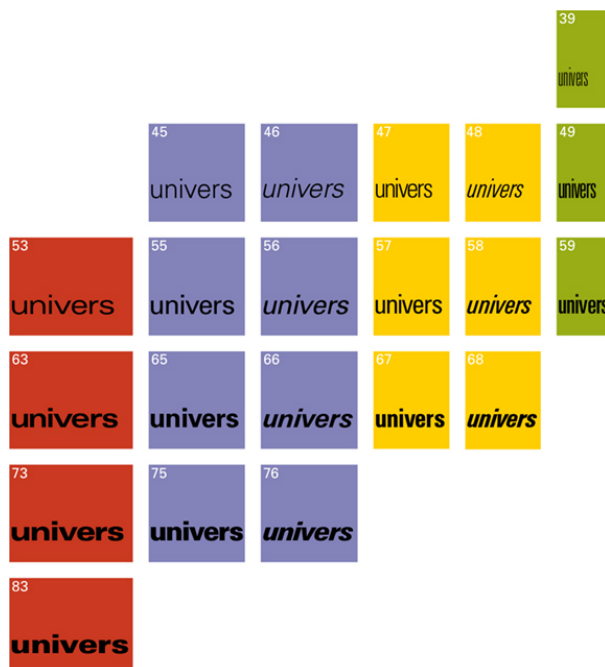


Figure 2.02. Adrian Frutiger's design variation for the Univers typeface in Meggs, P. (2016). 6th ed. Meggs' History of Graphic Design. P400.



Figure 2.02. Front Cover book by Emil Ruder (1982) 4th edition, *Typographie: Typography*. ([4th rev.]. ed.). A. Niggli.

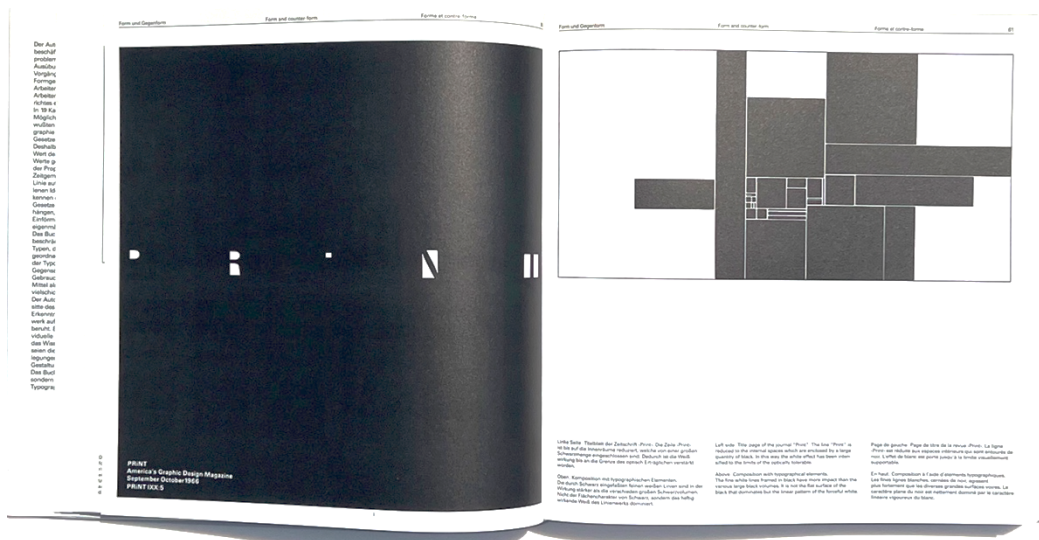


Figure 2.03. Spread from Emil Ruder's, (1982) 4th edition, *Typographie: Typography*. ([4th rev.]. ed.). A. Niggli. P90-91.



Figure 2.05. Spread from Emil Ruder's, (1982) 4th edition, *Typographie: Typography*. ([4th rev.] ed.). A. Niggli. P58-59.

Modernism's effect on information design.

The ambitious attempt in developing a universal language extended to information design through the formal simplification of large data sets. The International System of Typographic Picture Education, Isotype, exemplified this search to create a 'language' with claims to universality, Figure 2.06, 2.07, 2.08 (Burke et al, 2013, 9). Otto Neurath and associates, conceived Isotype in the 1920s, as a visual method for pictorial statistics. Developed over the next fifty years, it greatly influenced information design throughout the 20th century. Gerd Arntz, a principal graphic designer at Isotype, designed a schematic representation in the icon and symbolic pictorial style. Figure 2.06 shows the modular, somewhat nuanced variations of people as icons that were developed to populate statistical and informational diagrams, as shown in Figure 2.07. Neurath explained '*it is an essential quality of the Isotype method that it avoids emotional means – we want to transfer factual knowledge*' (Burke et al, 2013, 14). These goals are poignant, in their initial time of development between two World Wars, where there is a demand for clear communication to assist public understanding of important social and economic issues.



Figure 2.06. Gerd Arntz's initial sketches of people icons Isotype in Burke, C., Kindel, E., & Walker, S. (2013). Isotype: Design and Contexts 1925-1971. Hyphen. P508.

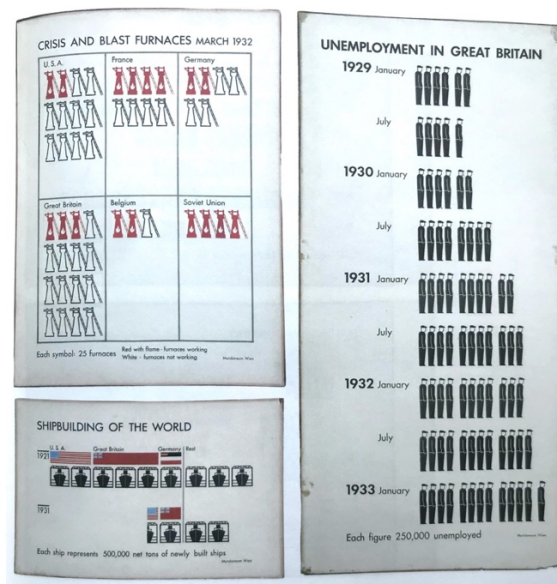


Figure 2.07. Isotype use of the pictorial language in statistical diagram in Burke, C., Kindel, E., & Walker, S. (2013). Isotype: Design and contexts 1925-1971. Hyphen. P181.

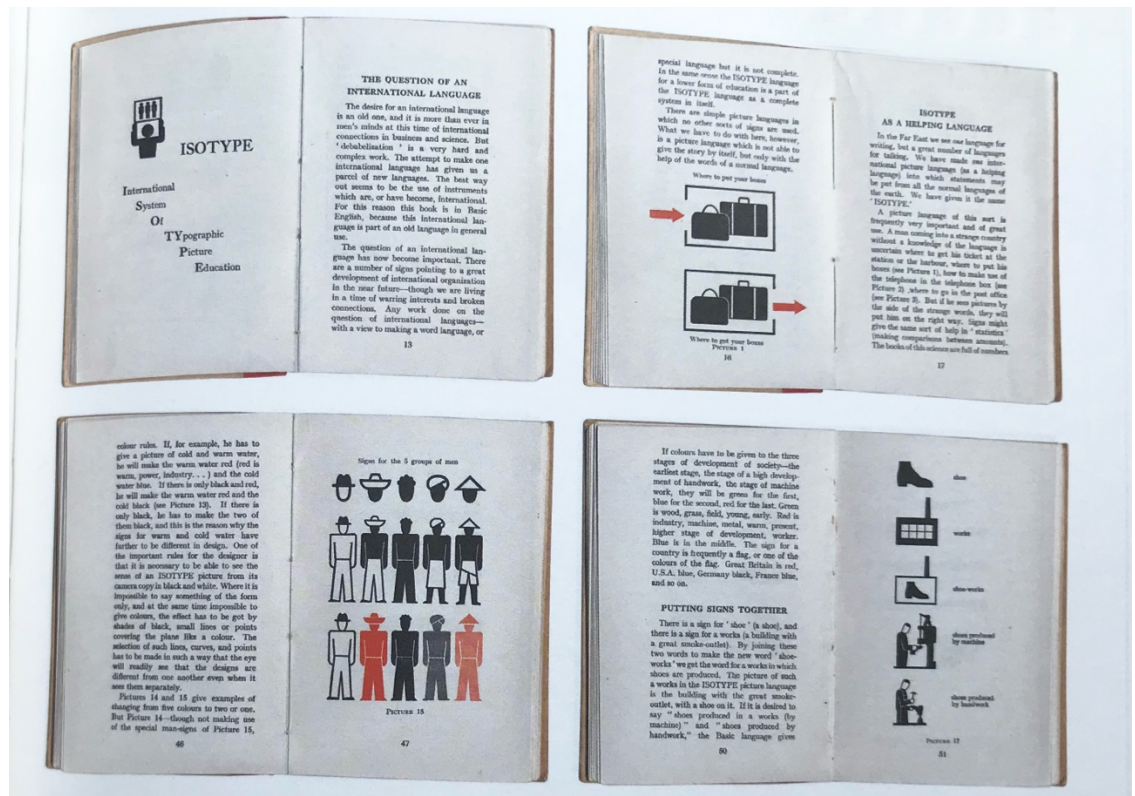


Figure 2.08. Isotype in Burke, C., Kindel, E., & Walker, S. (2013). *Isotype: Design and contexts 1925-1971*. Hyphen. P287.

The common thread in these developments is a certain type of modernism as a search for clarity and certainty.

The effect of this emphasis in the assured, objective and factual visual form, can seem that the thing being designed defies challenge. In factual and objective representation it can seem that the argument is self-evident, as given. Bruno Latour refers to this in his paper on visual cognition, as the 'immutable mobile' (Latour, 2015, 3). What he means is that visual information is closed down and is not to be refuted, challenged or critically questioned. As we consider what visual communication design needs to do in our own times, the critical question I want to raise is how can we prise this open, cut into the argument and negotiate with dominant types of meaning-making, since to be human is contingent, unstable and part of a relational world. The universal language of modernism has already been challenged by later designers. In the next section, through practice

examples, I will recover alternate visual communication histories that allowed in a certain mutability and questioned what has been disregarded in a designing regime foregrounding clarity and universalism. Rather than visual communication design as being a discipline concerned with problem solving, I now want to examine what happens when openness and the discursive, listening in and reciprocity are let in.

I will begin by setting out first what I mean by discursive and visual, and then consider how these are central in developing the visual as a knowledge producing discipline. As a means to plotting my course in this direction, I will examine how the work of Sheila Levrant de Bretteville, April Greiman and Jan van Toorn exemplify a more open, interpretative form of visual communication design.

What is meant by discursive in visual communication

The word ‘discursive’ derives from the Latin ‘discursivus’ meaning ‘to run about, to range, wander’ and in French, the etymon is *discursif* ‘that moves to and fro’.⁵ For communication to be considered discursive, it must be an exchange, a happening between, as in a correspondence. A conversation involves allowing a space for response, turn taking – sometimes speaking, sometimes being quiet. This involves a listening-in as reciprocal exchange. Caroline Gatt and Tim Ingold’s paper ‘From Description to Correspondence: anthropology in real time’ (2013) enrich this particular positioning, moving from description as representation, where correspondence is an active doing. Deirdre Heddon in ‘The cultivation of entangled listening: an ensemble of more-than-human participants’, draws on Val Plumwood’s recognition that communication as listening to the other demands an attentiveness that is open and receptive (Heddon, 2017, 1). This idea aligns

⁵ Oxford English Dictionary, s.v. “discursive (adj. & n.), Etymology,”
accessed 03/07/23 <https://doi.org/10.1093/OED/5033126756>

with Gatt and Ingold, where the discursive allows a *'possibility for selves to interpenetrate, to mingle, for each to participate in the ongoing life of the other'* (Gatt and Ingold, 2013, 142).

Discursive, in this research therefore is dealing with notions of language as a correspondence between, where conversation is an active wandering, and also, importantly a paying attention to, as in a type of attunement. In *The Reflective Practitioner* (1991), Donald Schön asks the designer to listen-in to the *'back-talk'*, that is, what a situation says back to the designer in the reciprocal to and fro of a designing event. This suggests that attention to reciprocity is an important part in making a design intervention into what Frascara calls a *'communication situation'* (2004, 1).

As an early example of this discursive movement made visible in an act of visual communication design, Stéphane Mallarmé's 1914 *'Un coup de dés jamais n'abolira le hasard'* is instructive. (*A Throw of the Dice will Never Abolish Chance*), Figure 2.09, 2.10. Mallarmé's wanderings, walking in Paris, forms the basis to making the composition of this poem across a double page spread. I consider this to be a poetics of relationality, where compositional space and lines of type contribute to the creation of a rhythmic, serendipitous walk across the page. I feel the visuality in reading this poem becomes rhythmic, indeterminate and spatial, deferring the uniform, linear and fixed order. This serves as a cue to my examination of processuality in the written text; as a wander between the words and feeling, in figure 2.09.

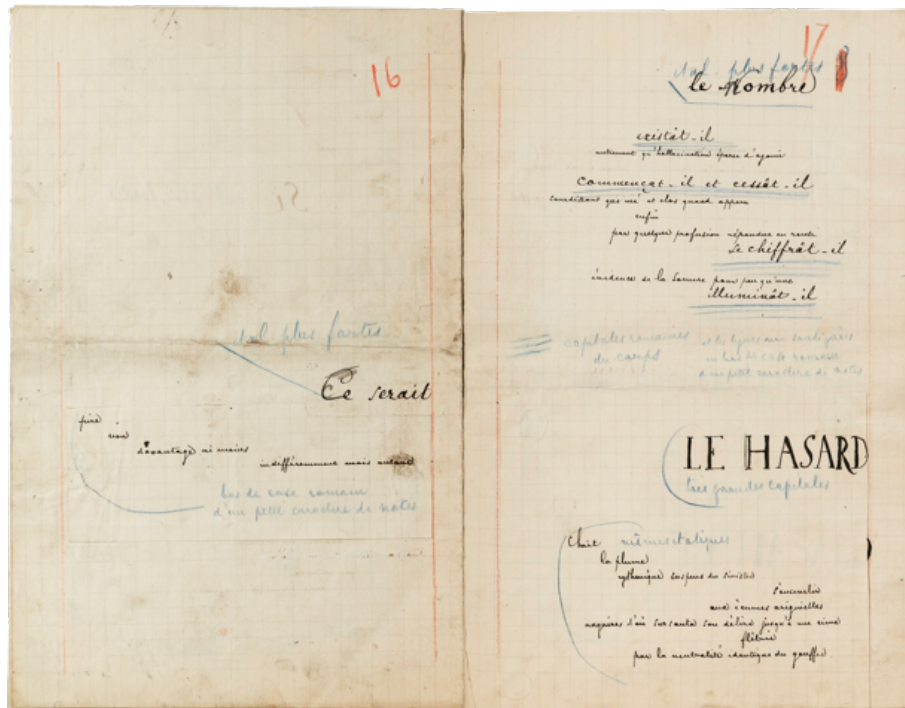


Figure 2.09. Stéphane Mallarmé poem initial drawing (2014): 'Un coup de dés jamais n'abolira le hasard' .
https://upload.wikimedia.org/wikipedia/commons/c/c6/Jamais_un_coup_de_d%C3%A9_n%27abolira_le_hasard.png accessed 06/04/22.



Figure 2.10. Stéphane Mallarmé, (2014). Poem:
[https://en.wikipedia.org/wiki/Un_coup_de_d%C3%A9s_jamais_n%27abolira_le_hasard_\(Mallarm%C3%A9\)](https://en.wikipedia.org/wiki/Un_coup_de_d%C3%A9s_jamais_n%27abolira_le_hasard_(Mallarm%C3%A9))
 accessed 14/05/24.

Andrew Blauvelt notes graphic design needs to critically consider what has been backgrounded, left out, when he discusses its power in ordering or reordering the worlds we know and create (1994). In his essay about opening out graphic design's discursive spaces, he questions what has been assigned meanings and why the centrality of the designer? He goes on to say '*I would contend that this project [designing] defines as much by what it leaves aside as by what it includes*' (Blauvelt, 1994, 215). His words are a jump through decades of designing development, but this reading in what he says in relation to the discursive and meaning-making is pertinent in Mallarme's poem. The reading is the open space, the backgrounded and for me the corrections and underlines, happening as a an ecology, Figure 2.09.

Visual in visual communication design – more than an ocular sensing.

Visual, in visual communication, means more than that can be seen; it is more than the sensory cognitive apparatus, the eye, the brain, nerves. Orit Halpern notes that '*particularly within western tradition, vision or visual operates as a term organising how we know about and represent the world*' (2014, 23). Visual is more an active integrated sensory action; Halpern notes that the language of vision invokes not an isolated form of perception, 'but rather it must be understood as inseparable from the other senses' (21). In *Ways of Seeing*, John Berger points out how seeing in the world is a relational act, as we can't just see one thing because seeing is between ourselves and things in the world (1972). Halpern links vision through its etymology, to the Latin word 'videre', which is the root of the word evidence (2014, 23). Halpern notes, citing Deleuze, that '*visibilities are the sites of production constituting an assemblage of relationships, enunciations, epistemologies and properties that are rendered into objects of intervention for power* (214, 24).

Why discursive and visual are important.

Discursive and visual, set up themes of reciprocity, correspondence and listening in, that elevate visual communication above the sole representational objective role established in this chapter's initial discussion of modernism. Visual communication design within a discursive and visual frame assume a relational, sensory, seeing and listening in position. A surface aesthetic therefore becomes affective aesthetic experience.

This makes it possible to consider it a mode of knowledge production, placing attention on its potential for epistemological claim. Johanna Drucker asserts that non-representational visual expression, creates knowledge: *'a visual image can produce something new, it does not reproduce something pre-existing'* (Drucker, 2020, 12). This is a visual epistemology, a way of knowing, where the visual is operational in making knowledge. In encountering such work, the audience is a partner in interpreting the argument. This positions graphic design things as acts of interpretation, with which to argue through visual means (Drucker, 2014). This defines a visual epistemology as making an argument, through visual means (Drucker, 2014).

Developing this idea of discursive, associative argument, I will now share a series of examples in which visual communication design involves an interpretative activity where the audience participate in a more active role. Lupton states that the *'modernist ideal of the sharp, crisp graphic symbol is giving way to a logic which favours the folding of signs into experience'* (Lupton, 2009). This gives insight into the active reader as performative. Lupton and Abbot Miller in *Design, Research, Writing*, point to the importance in a *'re-engagement of perception as part of linguistic interpretation'* (1996, 62). Through deferring the representational only function of the graphic, to activate the visual as a performing part of language, visual communication design can step towards collaborations across disciplines and important ontological storytelling situations.

Visual communication has research capacity that can be integrated into enquiry at the front-end, moving beyond the typical reactive answering to industry function (Gwilt, Williams, 2011, 82). This position acknowledges the designer's way of seeing as generative and productive at the instigation of making knowledge, moving beyond the sole emphasis on form.

Feminist directions in visual communication design.

Shelia Levrant de Bretteville, April Greiman and Jan van Toorn's work are examples that move from the modernist, declarative position for visual communication to a feminist position, enabling a critically engaged reader be an active, negotiating one. This declarative, representational and universalising stance shifts to take up a discursive, active, interpretative role, that cuts into the assured modernist stance, to bring in a mutability.

Sheila Levrant de Bretteville is a contemporary of the evolving modernist framing of visual communication design as a language of form. Through her practice and writing she challenges the dominant simplification and reductive role in making communication. Ellen Lupton and Levrant de Bretteville (Lupton and Levrant de Bretteville, 1993), examine this championing of plurality and the ability to listen-in to neglected voices. In discussion with Levrant de Bretteville about her role as Head of Design at Yale in the 1990s, she outlines the need to tackle this predominance of the *'universalising aspects of design and the notion that there was one high, single truth that would improve the lot for everyone'* (1993).

Women designers were too often slighted by a lack of attention and publicity for work they were making in the 1970's.⁶ Figure 2.11 and 2.12 are taken from 'Pink', a 1974 poster developed from the participation and sharing of a women's group, whose design was the fruition of a collective practice. Levrant de Bretteville defers her own voice of designer, in bringing in other voices. The patchwork composition alludes to a made-ness and

⁶ Sheila Levrant de Bretteville, a director of the program for design at Yale University does not get a mention, in Meggs History of Graphic Design (2016) (now in its sixth edition.)

contingent discursiveness with the participants, thereby making space for reciprocity. For Levrant de Bretteville, *'Design activity stands between us and our material existence; affecting not only our visual and physical environment but a sense of ourselves as well'* (Levrant de Bretteville, 1973, 4). The self, the situation, the audience and participants are all factors in meaning-making as an ecology of knowing that can't be honed down to singular motif. Levrant de Bretteville goes on to discuss feminist design as a relational existence *'looking for graphic strategies that will enable us to listen to people who have not been heard before'* (Lupton & Levrant de Bretteville, 1993). This is a different perspective from the singular, modernist design promoted at this time in design curricula and practice.

Levrant de Bretteville's work is noteworthy for the current research as this charts a beginning of a more feminist perspective for developments in visual communication on participation and interaction. Often we think only in technological terms of interaction design as the interface between computer and human, but Levrant de Bretteville's philosophy and practice in design positions interaction as encounter, as a betweenness that enables involvement, participation and inclusion. This interaction is conversational and enables a listening-in to other, less heard voices.

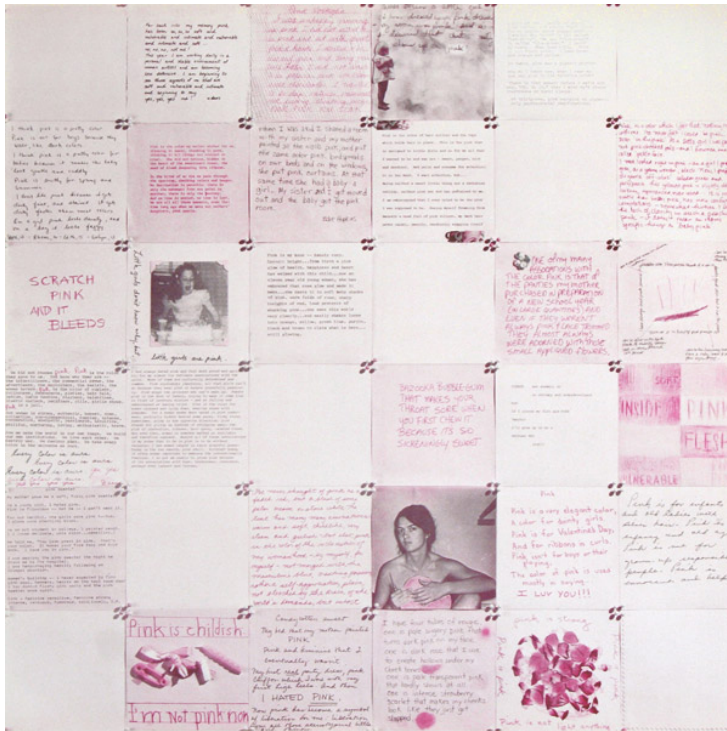


Figure 2.11. Pink, Sheila Levrant de Bretteville (1974), <https://sheilastudio.us/> accessed 06/05/24.

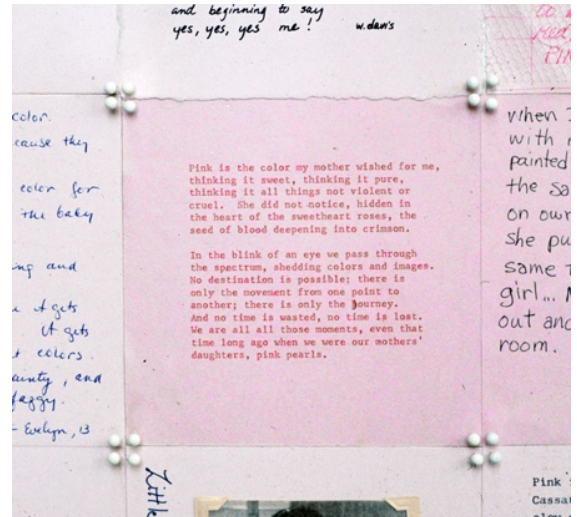
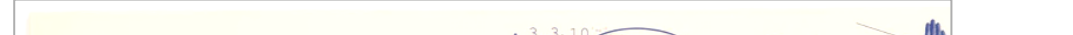


Figure 2.12. Pink (detail), Sheila Levrant de Bretteville (1974) <https://sheilastudio.us/> accessed 06/05/24.

Designing as an open question, does it make sense?

During the 1980s, April Greiman's work questioned embodiment and technology through visual communication design, examining boundaries between technology and human. In 1986, for the journal *Design Quarterly*, Greiman creates a foldout poster, pioneering for its time, titled 'Does it make sense?' She makes her own body a life-size output from a digital scan that allows it to act as an embodied mapping, Figure 2.13, 2.14. Greiman uses the Apple Macintosh, which was in its infancy, as a tool to manipulate image and text; pixilation is used to question – close-up and at a distance – with the viewer oscillating between many partial elements of type and image, Figure 2.15. The composition does not fit neatly together, its fragmented parts making a constituted whole. Greiman uses an interplay of various knowledge systems – science, maths and spiritual beliefs. The work evokes Donna Haraway's⁷ ideas in 'Situated Knowledges' (1988) of a subjective feminist objectivity as a partial seeing. In my opinion, Greiman manifests as

⁷ I discuss Donna Haraway's theoretical positioning in the next Chapter, 3.



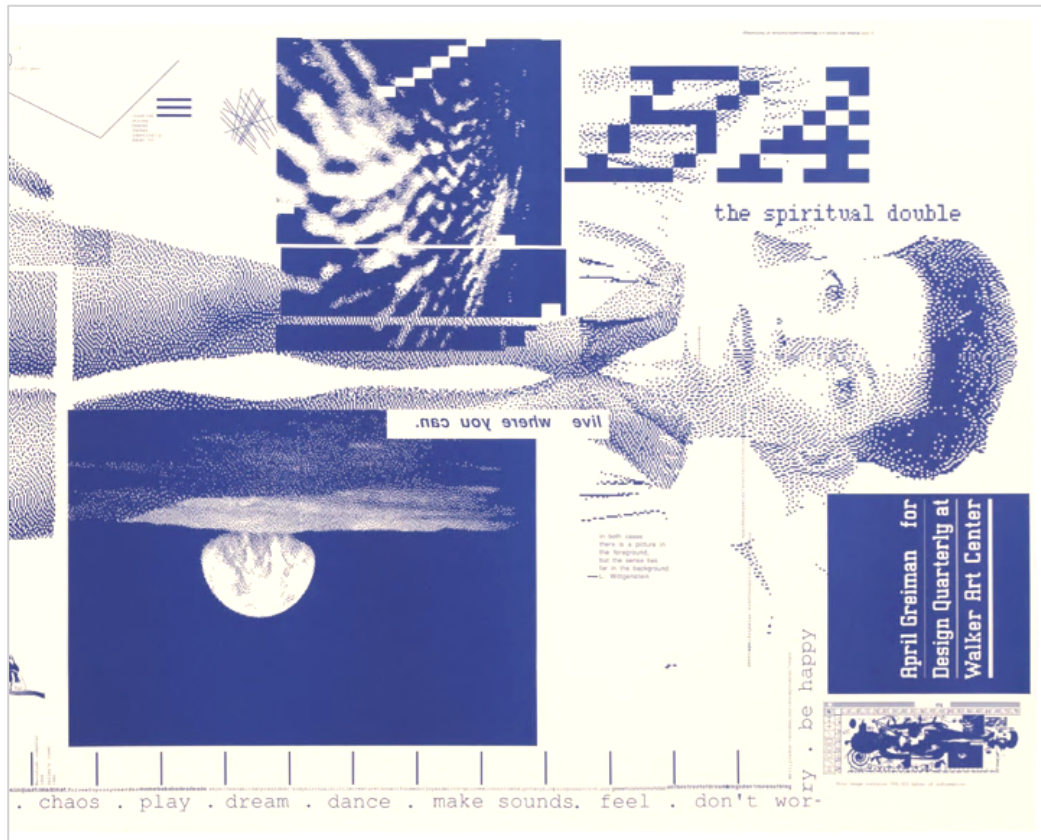


Figure 2.15. April Greiman (1986) Design Quarterly #133, Does it make sense? Smithsonian Institute https://www.si.edu/object/design-quarterly-133-does-it-make-sense%3Achndm_1995-167-4 accessed 06/05/24.

Dialogical designing

Another important proponent of a dialogic and constituting role for visual communication is Jan van Toorn. His approach is design as provocation, with the composition often being made to feel deliberately unfinished. In a series of posters made between 1981 and 1987 he created a visual essay about referentiality, examining the idea that images are rooted in one another. In one titled, 'Man and Environment', he uses and reuses an iconic image of Sofia Loren with her young son, confronting the viewer with a technological made-ness, examining the motives of producer, designer as mediator, that lie behind the putting together of a message, Figure 2.16. This 'dialogic designing' is a critical challenge, where the viewer here is an active participant in a meaning-making process.

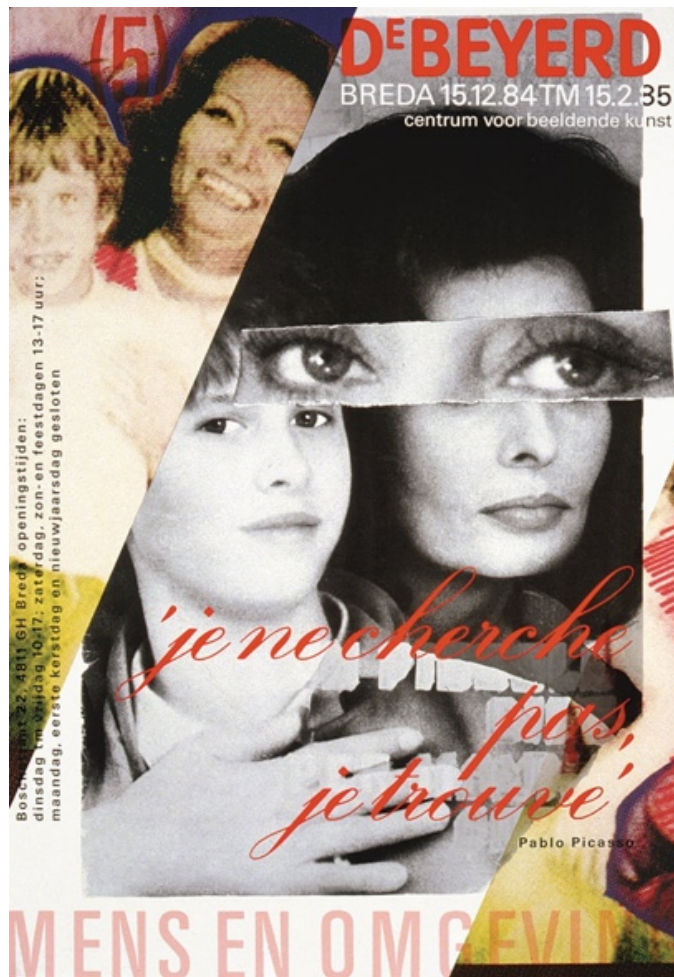


Figure 2.16. Jan van Toorn, Man and Environment. (1981)
<https://www.dutchgraphicroots.nl/en/jan-van-toorn-2/>
 accessed 05/04/22.

Visual communication design as partner in knowledge production.

These practices demonstrate alternative moves where more voices and argument are open and discursive. Performance constructs meaning as a result of engagement, the text is performed, rather than received as a given (Drucker 2013, 11). These are woven in and the visual is constituted partner in making knowledge. The work of Sheila Levrant de Bretteville, April Greiman and Jan van Toorn are examples of practice that open out from a modernist positioning to allow discursive interpretation. Visual communication design here, is a generative partner in knowledge production. It is what Johanna Drucker outlines as a visual epistemology, because the visible text is part of the act in making meaning.

Arne Scheuermann states that graphic designers engage in a methodological mix, in which they [designers] interrogate their own knowledge with other's experience— to ask what are the intentional actions of the messaging (2019, 448). This shifts attention from the emphasis on the material conditions of the text in order to consider the performative elements of the text and what it does in making story, argument.

The final third of this chapter explicates the discursive and visual through investigating a series of collaborative partnerships and disciplinary in-betweens. The works I start out with mark leanings towards this discursive and criticality in design. Rem Koolhaas and Bruce Mau's behemoth compendium – 'S, M, L, XL' (Koolhaas et al. 1995) is a legacy work, forging a direction in collaborative and collective synergies. In Kate Crawford and Vladan Joler's project (2018) 'The Anatomy of an AI system', graphic design partners as a visual and knowledge making, as a front-end position – instigating the making of this text. Then, moving to Eyal Weizman's work with Forensic Architecture, I discuss an adherence to *evidence* and *making visible* as the fundamental basis in their work – in order to counter hegemony for political justice.

How collectives, as designing practices constitute knowledges

The final series of practices exemplify partnerships forged in communicating perspectives with the more-than-human world. Marshmallow Laser Feast's (MLF) and Superflux are discussed as projects that allow ways of knowing that partner the more-than-human, as speculative critical design – examining connections between real embodied grounded experiential place and possible imaginings. These collective practices support my petition in critically considering the more-than-human as serious partner in designing ontological stories, connecting human and world, pointing towards a transdisciplinary visual communication design, as propositional examples in how humans weave entangled new stories.

S, M, L, XL.

Graphic designer Bruce Mau collaborated with Rem Koolhaas, principal architect at OMA, Office of Metropolitan Architecture, to develop the project 'S, M, L, XL' in 1995 (1998 2nd ed). The book aims to consider all the things that make up the practice of architectural design – travelogues, meetings, conversations, process drawings, maps, diagrams, Figure 2.17, 2.18. This compendium marks a turn in what graphic design can do as a collaborating partner. The subject matter in this book, is not the usual 'conflated' finished, designed things as end products, consolidating, but the 'deflated' parts, as ecology, the smaller moves that when gathered together allow the reader negotiate the making of a project, a building, a concept, an architectural practice. In the introduction, the outlined aim wants the immutable core of architecture to be confronted (Koolhaas & Mau, 1998, xix). Writings are embedded between projects, contradictions do not get avoided which defers the solidifying, consolidating function that visual communication has primarily attempted to do in its modernist framing.



Figure 2.17. Koolhaas, R., Mau, B., Sigler, J., Werlemann, H., & Office for Metropolitan Architecture. (1998). *S, M, L, XL: Small, medium, large, extra-large* (2nd ed.). p ii – iii. Monacelli Press.



Figure 2.18 p ii – iii in Koolhaas, R., Mau, B., Sigler, J., Werlemann, H., & Office for Metropolitan Architecture. (1998). *S, M, L, XL: Small, medium, large, extra-large* (2nd ed.). Monacelli Press. P1174 – 1175.

The Anatomy of an AI system

Kate Crawford and Vladan Joler's inter-disciplinary project 'The Anatomy of an AI System' is part research, part journalistic essay and part large expansive diagram (Crawford, K. and Joler, V. 2018). This is an open, investigative approach to making visible the ecology of labour, materials and places involved to putting together the Amazon Echo. It charts the material resources as precious earth minerals excavated, the invisible human labour employed at all stages, as well as the contextual places, world and corporate, involved in this production. Kate Crawford and Vladan Joler, take this discrete product/object from its position on a home table and, through detailed and exhaustive research, trace the involvements and entanglements of this seemingly individual thing, visualising and articulating their findings in diagrammatic and essay form, Figure 2.19, 2.20.

Visual communication is a central partner in this interdisciplinary role. Reading requires as much attention to the diagram, where that text is a visual production of knowledge along with written essay. This demonstrates a visual epistemological framing as expansive mapping – interrogating and

making visible the ecology of practices a reader negotiates and interpretes. Visual communication happens between different textual modes: diagram with journalistic, research essay. The diagram deploys design principles, having typographic consistency, hierarchy, a clear system of iconography and pattern. These are important tools, allowing the audience, through the visual, to interrogate ideas of value, hidden labour, monetary value, within an ecology around the making of the Amazon Echo. The attention is on the performative role of the design piece, its function in telling, and making visible this story.

I have included this project, because if the information design in the Isotype example, at the start of the chapter, marks a tendency to measure and visualise for rational knowing, then this is an opening, questioning and interrogating information design, questioning relationality between economic value and materials. This is a type of unpacking or revealing through design, where the logics of a supposedly rational system are exposed. It asks what are the elements involved in drawing these things together and it allows a visibility to this seemingly discrete thing. It is the forming before formation, a sort of a cutting into, in order to show how this thing comes into being.

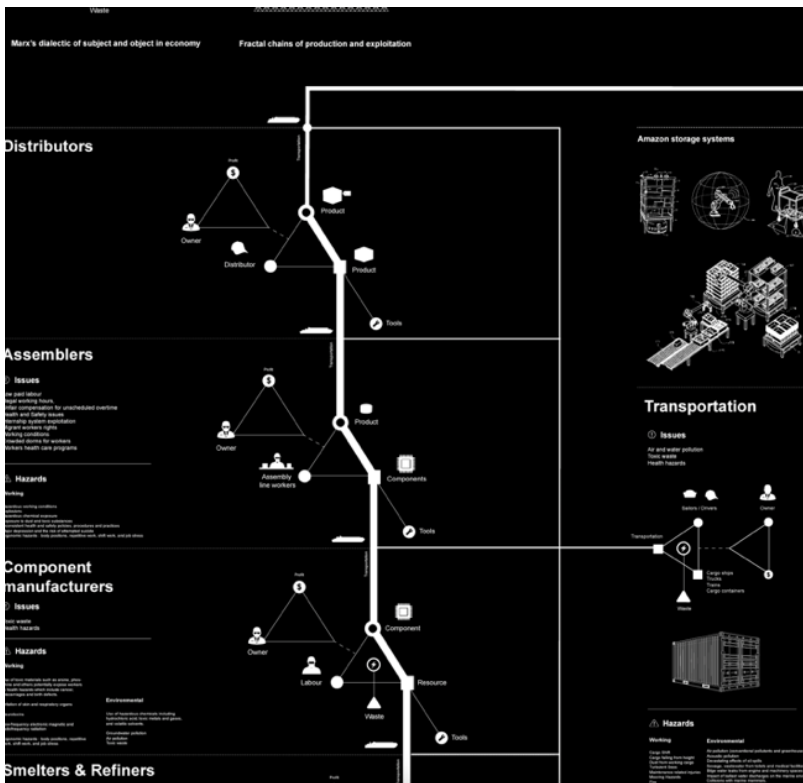


Figure 2.19. Crawford, K. & Joler, V. (2018). Anatomy of an AI System: accessed from <https://anatomyof.ai> accessed 09/03/19.

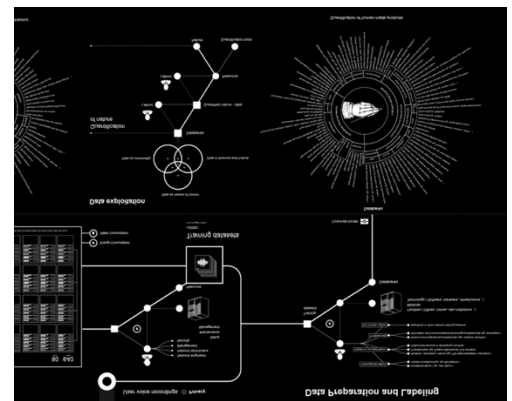


Figure 2.20. Crawford, K. & Joler, V. (2018). Anatomy of an AI System: accessed from <https://anatomyof.ai> accessed 09/03/19.

Forensic Architecture (FA)

Forensic Architecture, founded by Eyal Weizman, began in 2010 as a research centre at Goldsmiths, University of London. Its aim is to ‘*develop, employ and disseminate new techniques, methods and concepts for investigating state and corporate violence*’ (Forensic Architecture, n.d.). This work is research-based, producing and presenting spatial evidence within legal, political and cultural contexts. It is interdisciplinary in nature, spanning editorial journalism, data visualisation, diagramming, mapping and research, to make political injustices evident and visible.

For instance, the project ‘Gold mining and violence in the Amazon Rainforest’ charts the rise in violent rhetoric and pro-mining policies of the Bolsonaro administration against the indigenous communities of the

Yanomami territory along the Uraricocera River, Figure 2.21. This happens through assembling partial discursive media types, to form the argument – video testimonies, satellite mapping and 3D modelling – alongside open source research. Figure 2.22, presents stills from the film showing these interdisciplinary forms of visible evidence as a visual epistemology.

This work contributes to an ontological design framing because the human rights and planetary justice around this story is a relationality between indigenous peoples, the materiality of the Amazon territory and the power distribution of the logging industry and government that make these rules. The project is transdisciplinary, the subject matter is distributed over multiple visible media types with visual communication as part of this. At the centre of this project is an approach to design that can critically foreground ways we can be, know and see within a relational ecology.

I.85 GOLD MINING AND VIOLENCE IN THE AMAZON RAINFOREST

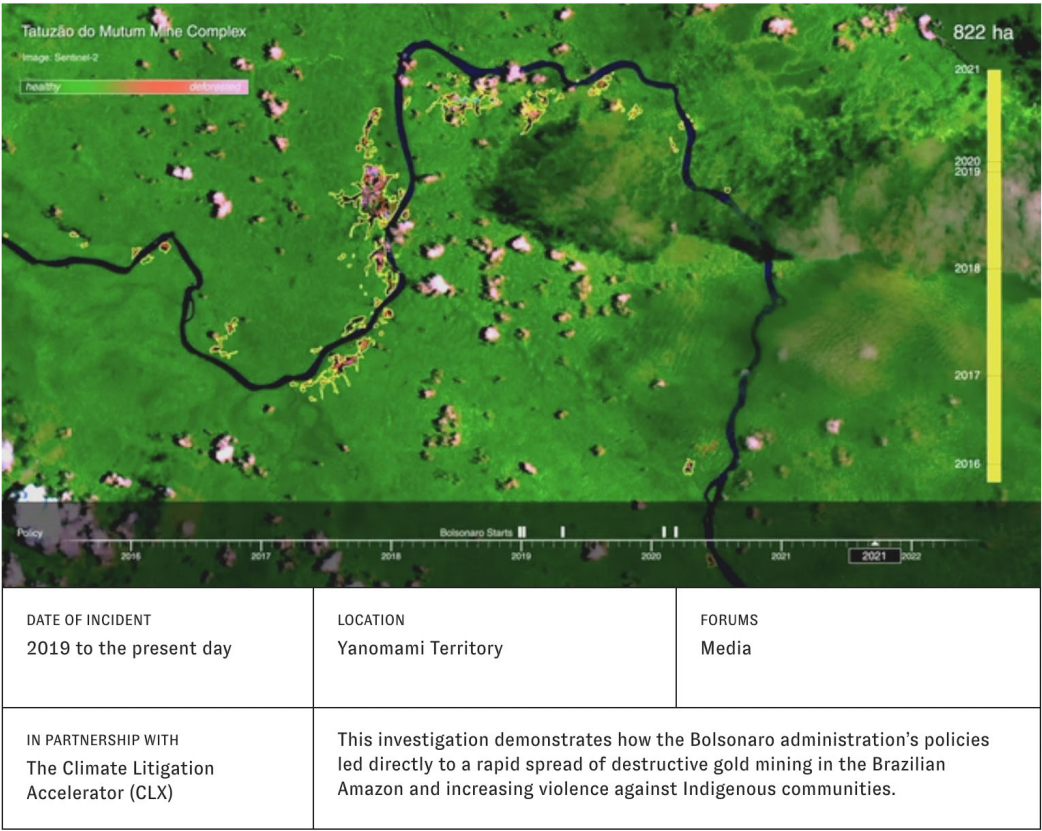


Figure 2.21. Forensic Architecture. <https://forensic-architecture.org/> accessed 19/03/23.



Figure 2.22. Forensic Architecture. Screen shots from film, <https://forensic-architecture.org/investigation/gold-mining-and-violence-in-the-amazon-rainforest>. accessed 19/03/23.

Marshmallow Laser Feast (MFL)

Marshmallow Laser Feast (MFL) is a collective design practice whose work is primarily in the area of immersive experiential installation. Their work focuses on ways design can be deployed for deep listening-in to the more-than-human world, where they de-centre the human to make tangible the intangible dependent sensing that is part of our world. Their 'In the eyes of the animal' project (2015) places the participant, (or as they refer to it, the 'human animal'), in the eyes of four different animals and insects in a forest, Figure 2.23, 2.24. This allows a human to experience the world as another

sensing cohabitant among others, thus transforming an understanding of the world and how human moves and acts within it (Marshmallow Laser Feast n.d.).

MLF discuss the importance of the tactile and digital elements as integral to the project (Marshmallow Laser Feast n.d.). The augmented reality experience, centred on the Grizedale Forest in the Lake District, England, first leads the participants on a walk through the forest, as the starting point to their encounter. The headsets have physical samples from the forest on them, with participants wearing a sensory back-pack to replicate animal vibration, Figure 2.25. Being in the forest is part of the experience in seeing in the eyes of a mosquito, a frog, an owl or dragonfly. Grizedale forest becomes, what Arturo Escobar calls, a pluriverse (2017) – the project allows multiple perspectives happening in the one space; where the concerns of different animals entangle and overlap.



Figure 2.23. Marshmallow Laser Feast. <https://marshmallowlaserfeast.com/project/in-the-eyes-of-the-animal/>
In the Eyes of the Animal, Mosquito. Accessed 17/03/24.

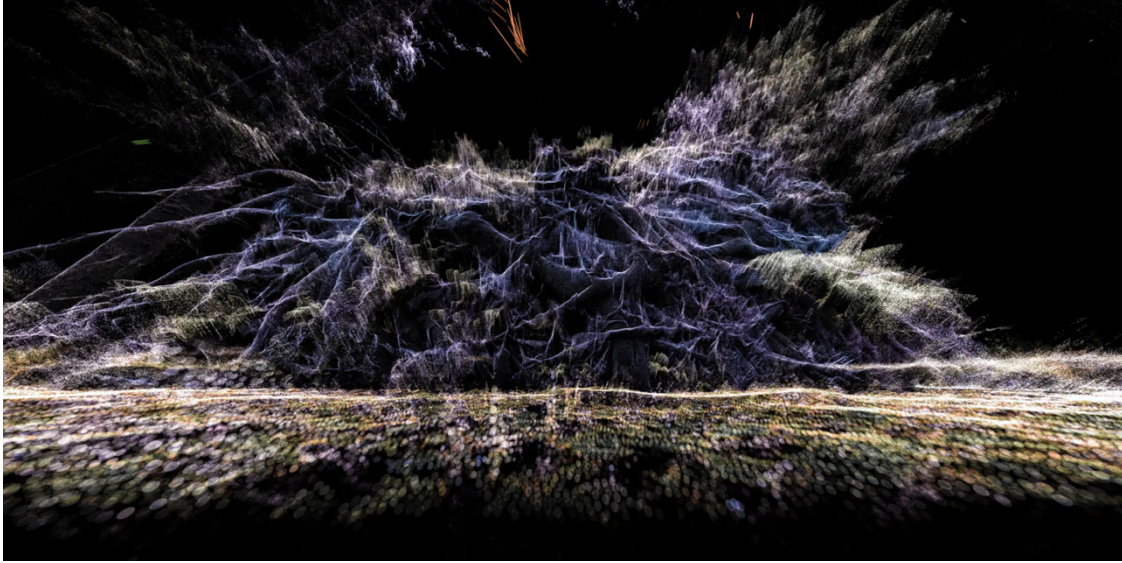


Figure 2.24. Marshmallow Laser Feast. <https://marshmallowlaserfeast.com/project/in-the-eyes-of-the-animal/> in the Eyes of the Animal, Frog. Accessed 17/03/24.



Figure 2.25. Marshmallow Laser Feast. <https://marshmallowlaserfeast.com/project/in-the-eyes-of-the-animal/> In the Eyes of the Animal. Accessed 17/03/24.

In Marshmallow Laser Feast's project 'Breathing with the Forest' (2023), Figure 2.26, 2.27 – *'visitors to the installation synchronise their breath with audiovisual cues born of the forest,nurturing a sense of connection with the more-than-human world.* (Marshmallow Laser Feast, n.d). The participant is invited to encounter living as a breathing, sensing co-habitant in a shared environment. Anthropocentrism is deferred, to foreground this relational story between the forest and human. Breathing as a human or as a tree have a huge variance, in fact there is no similarity between them, but the difference provides a commonality between, emphasising a reciprocity in this meet up between human and tree.

Marshmallow Laser Feast's 'Breathing with the Forest' connects an evidential, in-the-world scenario with possible, virtual stories. Figure 2.28 shows stills from their film showing a commitment to being in a place by collecting actual data, mixing the scientific and ethnographic along with visual and designerly encounters they are making. This is a mixing of design fictions, possibilities as a way to form alternative narratives, for a critical and speculative imagining.

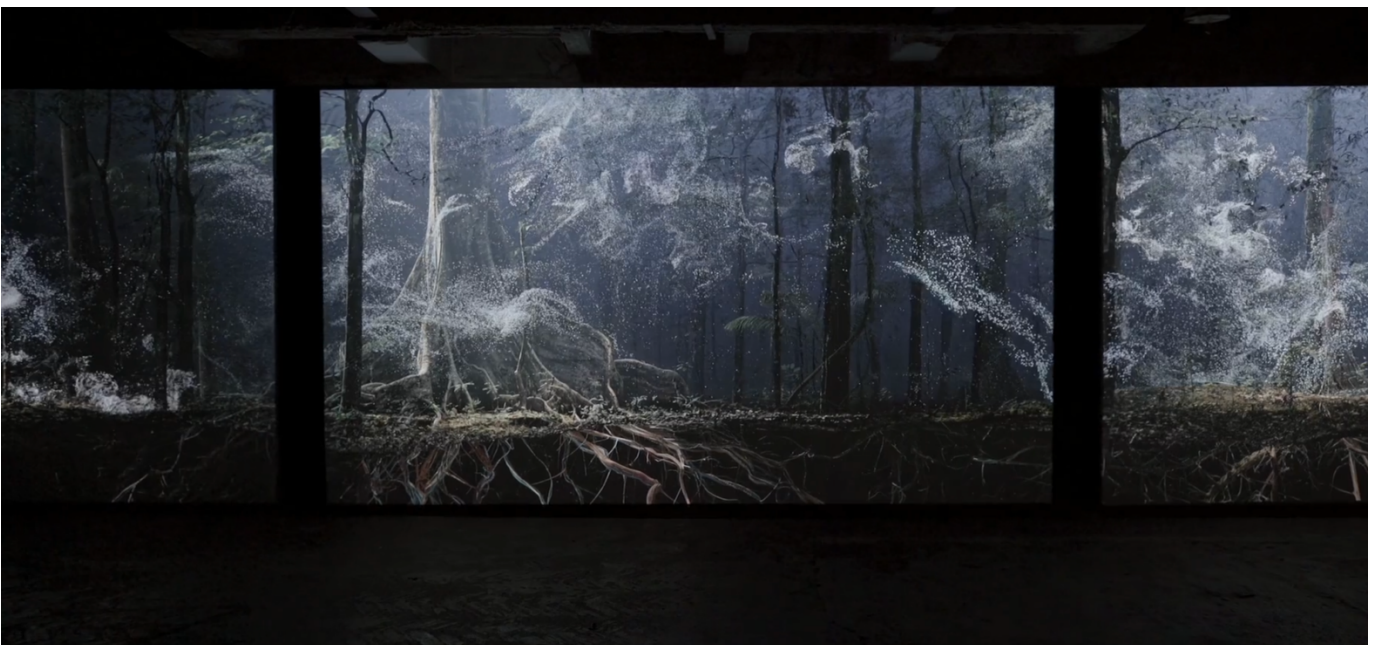


Figure 2.26. Marshmallow Laser Feast. Breathing with the Forest. Still from film
<https://marshmallowlaserfeast.com/project/breathing-with-the-forest/> Accessed 24/04/24.



Figure 2.27 Marshmallow Laser Feast. Breathing with a Forest. still from film:
<https://marshmallowlaserfeast.com/project/breathing-with-the-forest/> Accessed 24/04/24.



Figure 2.28 Marshmallow Laser Feast. Still from film illustrating ethnographic and scientific processual engagement for designing Breathing with a Forest. <https://marshmallowlaserfeast.com/project/breathing-with-the-forest/> Accessed 24/04/24.

Superflux

Superflux (n.d) is a speculative design and art studio, which considers climate change, human/nonhuman relationships and future ecologies as central to its practice. In their project 'The Ecological Intelligence Agency' (EIA), Figure 2.29 – 2.32, they reimagine ideas of intelligence and agency de-centred from human-only concern – aptly articulated by them on their website:

'We considered an alternate intelligence that does not claim unlimited access to knowledge systems, does not assume only one way to understand the world and does not perpetuate dominant extractive paradigms. What of an intelligence that is accountable and accounts for a multitude of interconnected cosmologies and lived experiences alongside data sets? Pushing this further, we wanted to render scientific evidence meaningful through the poetic, as well as make the journey transparent and traceable, in turn amplifying the voice of actants often left out of analyses and decision making'.⁸ (Superflux, n.d)

'The Ecological Intelligence Agency' project imagines extending governance beyond human, opening questions to ways of designing for ecological attunement through mixing different ways of knowing – poetry as speculative voice of the river, scientific knowledge and artificial intelligence – imagining the river Roding in Essex having voice. It invites you to listen, feel and think with the situated wisdoms of the waters', Figure 2.29 – 2.30.

⁸ <https://superflux.in/index.php/work/the-ecological-intelligence-agency/#> Access October 2024.



Figure 2.29. Superflux. The Ecological intelligence Agency. <https://superflux.in/index.php/work/the-ecological-intelligence-agency/#> Accessed 17/10/24.



Figure 2.30. Superflux. The Ecological intelligence Agency. <https://superflux.in/index.php/work/the-ecological-intelligence-agency/#> Accessed 17/10/24.

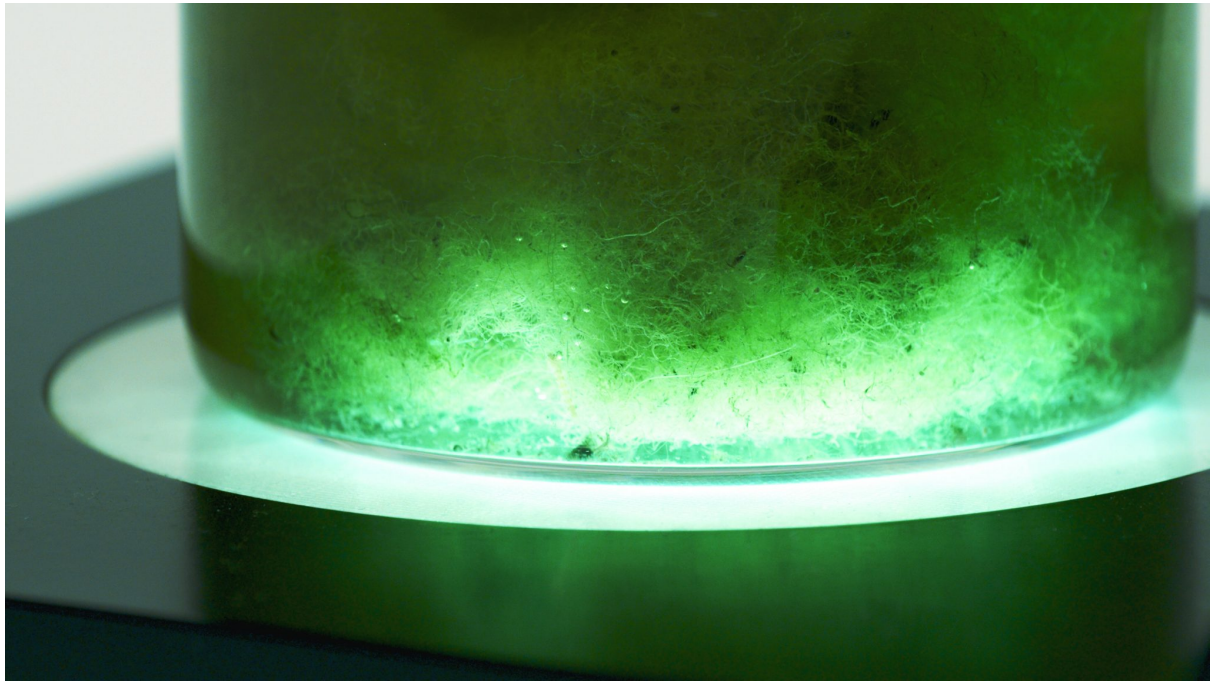


Figure 2.31. Superflux. The Ecological intelligence Agency. <https://superflux.in/index.php/work/the-ecological-intelligence-agency/#>
Accessed 17/10/24.



Figure 2.32. Superflux. The Ecological intelligence Agency. <https://superflux.in/index.php/work/the-ecological-intelligence-agency/#>
Accessed 17/10/24.

Other collective inter-disciplinary practices of note are *Hyphen-Labs*,⁹ *Onformative*¹⁰ and *Studio Above&Below*.¹¹ The common thread is their criticality in examining environment, place and the more-than-human as serious concerns for making design.

What these movements mean for visual communication design.

This chapter has moved a discussion from a legacy modernist ontology that has a bearing on how we position ourselves in the world through the stories and knowledges we construct. Modernisms have perpetrated anthropocentric viewpoints that contributes to an existential crises – affecting climate, biodiversity, security and planetary justice, through designing that is seemingly immutable – fixed, simple, abstract and individual. This is a self-referential insular human-to-human meaning-making regime.

The second section of the chapter examines design paths and histories that bring a feminist perspective. This acknowledges more voices, lets in argument and counter argument. It is about the discursive, about emotion and feeling – opening ways of interpretation. The work of Sheila de Levrant de Bretteville, Jan van Toorn and April Greiman exemplify the move in this direction.

And finally in the last section, the practices of Forensic Architecture through to the projects of collectives such as Marshmallow Laser Feast and Superflux begin to demonstrate designing that considers how the existential human place in the world needs to be situated as relational and incorporated. These projects demonstrate this in themes of ecological sustainment, social justice with collaborative and critical perspectives within

⁹ <https://hyphen-labs.com/>

¹⁰ <https://onformative.com/work/meandering-river>

¹¹ <https://www.studioaboveandbelow.com/work/entangled-landscape>

a relational world. These are central ingredients in making communication for knowing and being in the world, an ontological designing.

The examples cited, in the work of Marshmallow Laser Feast (MLF) and Superflux, support the earlier discussion of open and discursive design, because these projects are organised as a corresponding encounter. These are experiential projects allowing a conversation through data, poetic voice, artificial intelligence, walking with a group in a forest. This acknowledgement of the more-than-human perspective de-centres a human-only perspective. Visual communication design is partial and transdisciplinary as collective mix, where visual language is a visual epistemology; a knowledge production. These works constitute ways of knowing – mixing scientific, artistic, indigenous, poetic, with visual – in order to tell stories as relation between human and world, acknowledging the dependent space between. This is done in sharing knowledges and voice to widen perspectives.

Dunne and Raby, in their work ‘Speculative everything’, say critical design is a way to ‘*expose assumptions, spark debate, raise awareness and offer new perspectives*’ (Dunne and Raby, 2013, 43).¹² They state, critical design is where ‘*critical thought is translated into materiality. It is about thinking through design rather than through words and using the language and structure of design to engage people*’ (2013, 35). This is design that poses a critical open questioning – ‘what if’. What if I could see in the eyes of a frog or mosquito? What if an artificial intelligence, large language model, is directed at data of a river, so we can hear its voice? These are open discursive, questioning propositions.

These projects consider *materiality* in the world as constituted in how human make stories, knowledge and ways of being in the world that I

¹² It must be acknowledged that ‘Speculative everything; Design Fiction and Social Dreaming’ (Dunne and Raby, 2013) is problematic on one level, because they do not adequately engage with indigenous and non-western knowledge systems. This contributes further to the ongoing marginalisation between global north and south. This is beginning to be addressed and needs constant foregrounding, recognising colonial histories and power dynamics that have contributed to uneven and often unfair power and wealth in shaping the world.

further explore in feminist new materialism – informing a theoretical and methodological direction, explored in the next chapter for visual communication design. How are memories, histories, stories and knowledge created dependent and inextricably linked to actual stuff – place, trees, rivers, ground, things of the world. Stories created in the projects of MLF's and Superflux are not abstract, they have dependent material-immaterial ways of knowing in the world. In the project 'In the Eyes of an Animal' the encounter is in walking, in the forest, is part of the augmented reality (AR) experience. Being in the forest is an embodied and grounded experience, acting as a departure to augment another different perspective, another view point, other than human. In the Superflux's 'Ecological Intelligence Agency' (EIA) project – material things, the River Roding, scientific water samples, the habitat link into memory, story and the remembrance of what happens in varying imagined scenarios. These are constituted parts of knowing, connecting material and discursive, actual and virtual as constituent parts of the knowing and being in the world are further explored in the subsequent chapters.

The third part of this chapter moves design to an open trans disciplinarity, that challenges a siloed position. I have made the diagram, Figure 2.33 to map unfolding changes and new affiliations for visual communication design, from fixed, stable, print orientated discipline to being transdisciplinary and partial. The discrete disciplines of graphic design, information design, editorial design, discussed at the start of this chapter are shown as adhering to modernism in being objective, rational and emphasising clarity of singular message. This is marked in the blue circle, along a line that acts as a timeline. The names of the discipline change. The red square, on the diagram, marks where discipline and practices influence and overlap for visual communication design, making it discursive. Moving from the 1950's through to the 80's and into the 2000's, and the 2020's – Visual communication design, as shown in the diagram, comes into contact with other disciplines where boundaries come down and new methods and practices evolve with other ways of knowing. This modelling is dynamic, it

shape shifts. New affiliations, and methods open out and are always changing. What is important in this evolution for design is that a space opens out for an ontological design perspective where stories are part of the world we live in and with whom we are a dependent partner.

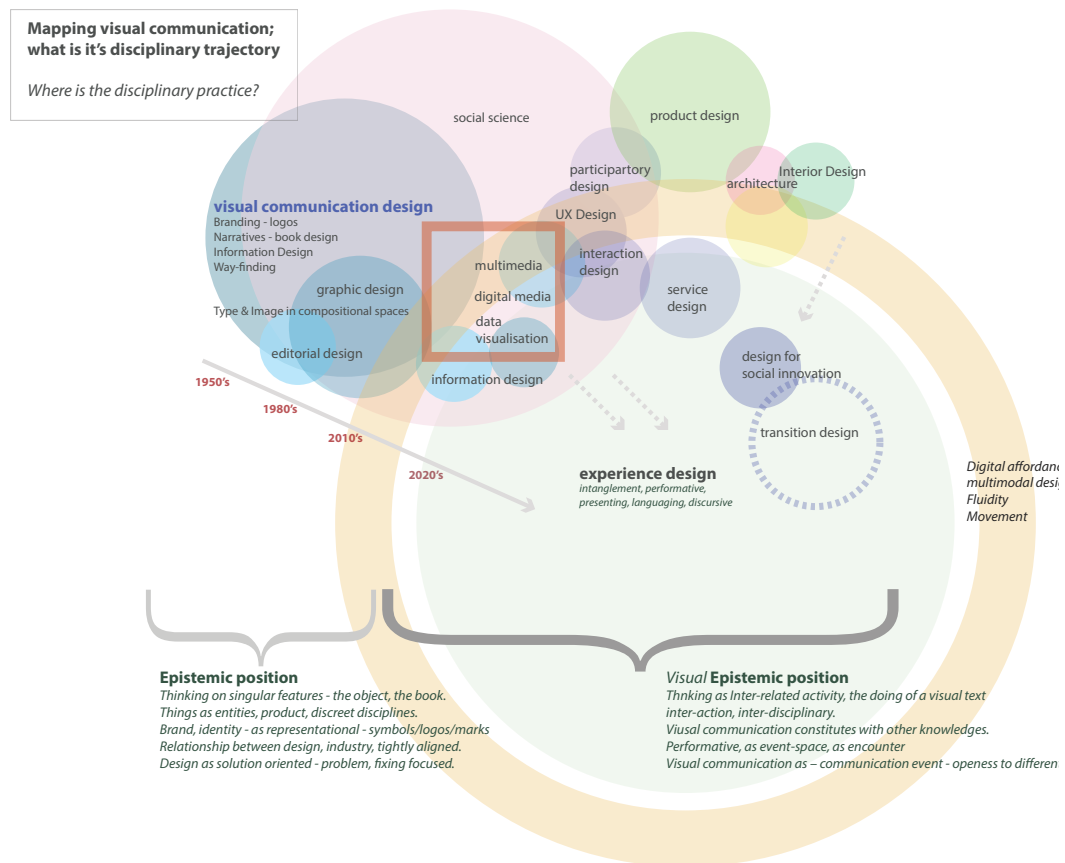


Figure 2.33. Model outlining visual communication design's disciplinary connections and movements, from its legacy position to contemporary where transdisciplinary alliances are forming.

The movement from a legacy modernist perspective to the collective transdisciplinary practices are relevant because they take the world as a serious participating, sensory partner in design. They demonstrate tactics where rivers, earth, animals, trees and plants – the more-than-human are serious partners in knowledge creation. For visual communication design, this informs new procedures and methodology where a transdisciplinary perspective is used to weave a relationality between human and world. These practices will inform the next chapter's theoretical and methodological questioning, where I analyse key themes of relationality,

performativity and ways of knowing in feminist new materialism through the work of Jane Bennett, Donna Haraway and Karen Barad. This, in turn, questions where agency resides in the meet up between human and world and how materiality, the stuff, the things of the world can become reconciled and rejoined into our stories, dreams and memories.

My understanding of what is included and excluded in meaning-making; who and what gets to make meaning, exemplified in these practices, is further explored in the next chapter through the theory of Deleuze and Guattari in their work on critical semiotic positions. I ask how does their transsemiotic thinking widen the scope to let in other ways of knowing and being in the world? The design practices discussed here show that the meaning-making regimes within which we live, its self-referentially that serve human being in the world, can and must be constituted into worlding ways of knowing. The theoretical alliances that are explored next, support these types of new transdisciplinary design practices, in making a relational reach between human and more-than-human for designing, living and being-in-the-world.

Human-to-human communication, ways of knowing and being in the world – are opening out to the sensing and vibrancy of more-than-human knowing. Visual communication design is part of a visual language involved in meaning making that needs to be an incorporated part of the world, as experiential. As Arturo Escobar asserts, language is not separate out there, abstract, but is constitutive of such reality (2018, 111). An ontological designing position can draw a connection between human and world, allowing an ‘inter-being’ in the world.

Chapter 3:

Theoretical positions; feminist new materialism and critical semiotics.

Introduction

This chapter's aim is to explore theoretical positions that support ways in which visual communication design can be positioned in an ontological design framing. I am seeking to build a methodology that defers anthropocentric-only perspectives, so as to see, listen-in, sense and feel with other ways of knowing. In this chapter I do so through a feminist new materialism focusing on the work of Jane Bennett, Donna Haraway and Karen Barad. These theorists are selected because their focus, in different ways, is of the world being a serious *matter*. Jane Bennett's work is important because it deals politically with human effects in de-animating the more-than-human world. In 'Vital Matter' (Bennett, 2016) she acknowledges that to be human is actually being part of an unfolding animated living worlding.

Donna Haraway's work emphasises contingent human being, partnering within a worlding of others – *'We relate, know, think, world and tell stories through and with other stories, worlds, knowledges, thinkings and yearnings. So do all the other critters of Terra'* (Haraway, 2016, 97). Haraway's work consistently focuses on what and from where we look from. This is pertinent in re-ordering ideas of knowing, how we know and with whom and what we know, examining how we make stories with and in the world.

Karen Barad connects these post-human and feminist new-materialism perspectives through a deep commitment to matter. I examine her important perspective on the material-discursive – the dependent nature of actual, physical materiality with thinking and knowing. Karen Barad's work is particularly important in forming the concept I take through to practice, examining an affecting interaction as 'intra-acting' perspective. This is a theory where agency happens between things, not held by any entity. In a subsequent chapter, these theorists allow me to plot my methodological direction, by examining 'meet-ups' of discipline. In turn, this allows me to

develop the experimental practices through which visual communication design can be tested as ontologically facing and where matter really matters.

The last part of this chapter examines meaning-making through examining a critical semiotic perspective. The aim is to examine the regimes of knowing that human exists within, in order to question ways of meaning making outside this human-only regime of knowing. To do so, I will turn to the work of Michel Foucault. I then examine meaning-making within a human-only framing, to show how this increasingly de-animates the natural and material world, disconnecting human and more-than-human ways of knowing. *'Designing...needs to construe itself as a practice of transitioning between stories – from the expert-driven ontology of separation to a life-centred ontology of inter-existence'* (Escobar et al, 2024,12). I question a semiotic positioning for an ontology of inter-being and inter-existence (Escobar, 2017). This will incorporate human within a sensing knowing and in tune with worlding ways of knowing.

Finally, I move the discussion into Deleuze and Guattari's conception of the 'transsemiotic' (2014, 158). This is about questioning the semiotic space, meaning-making, that allows more connective and relational reach between world and human, accounting for the more-than-human. As discussed in chapter 2, visual communication design functions to make meaning for communication, so to critically question the space in which meaning-making happens is central in this research. This evolves the discussion to consider the place of more-than-human sensing, knowing and the worlding we exist within, as an unacknowledged partner in meaning-making. The examination of semiotic positions interrogates the theoretical semiotic basis of visual communication, a signifying semiotics built from structuralism. Visual communication design, because it concerns signs and significations through mark-making, type, lines, pattern and images has, within its remit, a possibility to re-link meaning-making between human and world. This outlines the main theoretical positions for this research in feminist new materialism and critical semiotics.

I will begin now by discussing those specific artistic and research practices that complement the transdisciplinary design practices at the end of chapter 2. They provide critical engagements in the world regarding matter mattering and meaning-making that expands its scope further than a human-only perspective. This makes clear why I have chosen these particular theoretical alliances, in new materialism and a transsemiotic perspective. These practices are both experimental and experiential – questioning the relational nature of human and world together as co-dependent things. Human, in these practices, is exemplified as contingent, interwoven and implicated; being is part of an ecology of happenings, moving away from anthropocentrism. The practices, workshops and writings of Yasmine Ostendorf-Rodríguez, Anja Wenger and Franca López Barbera manifest a closer listening-in, observing within and with the world of which we are part. This gives the contextual locus for theoretical positions I go on to examine, in relation to feminist new materialism and critical semiotics.

Designers-artists-researchers partnering the more-than-human.

Becoming fungal

Yasmine Ostendorf-Rodríguez is a researcher in art and ecology (2023). Through alliances with other artists, indigenous wisdoms, mycologists and farmers, she examines questions about human ideas of time, transitions, control, death and collaborations through thinking with fungi, Figure 3.01 – 3.04. In her book *‘Let’s Become Fungal: Mycelium Teachings and the Arts’* (2023) the chapters, or teachings, are not centred on rational, factual knowledge, rather, it is a journey of open questions workshopped through engagement within forests and by consulting indigenous knowledges. All questions are framed from the perspective of seeing and feeling within a mycelium world, like collaborating with a forest, Figure 3.05, or how to organize like a mycelium, Figure 3.06. For instance Teaching Four – *‘How to re-think decay and decomposition? we need to talk about death’* (114), opens out ideas of transitions, dying, metamorphosis, grief and rest. *‘Fungi are the interaction between life and death positioning them perfectly to*

demonstrate that binary is not as strong as we might think' (113). Ideas of decay and death transgress: fungi don't follow the same patterns of life and death as understood by humans, allowing other forms of conceptual thinking for human relationships about living and dying. 'It's the cycle of life; everything still exists but in different forms' (133).



Figure 3.01



Figure 3.02



Figure 3.03



Figure 3.04

Figure 3.01 – 3.04. Yasmine Ostendorf-Rodríguez (2023) stills from short film showing workshops.
<https://www.yasmine-ostendorf-rodriguez.info/> accessed 19/05/24.

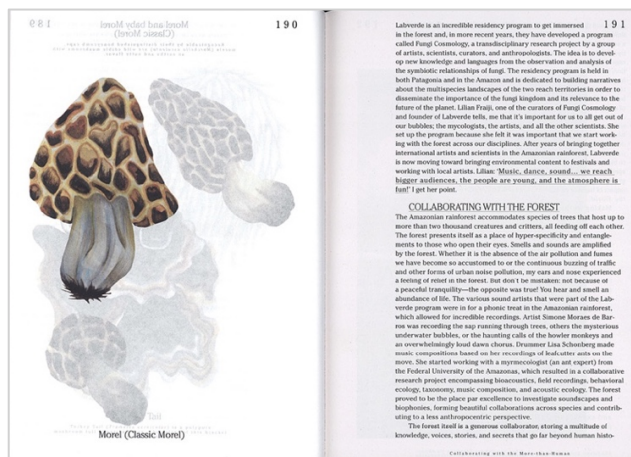


Figure 3.05. Yasmine Ostendorf-Rodríguez in (2023). *Let's Become Fungal! Mycelium Teachings and the Arts*. Valiz. Amsterdam. p190 – 191.

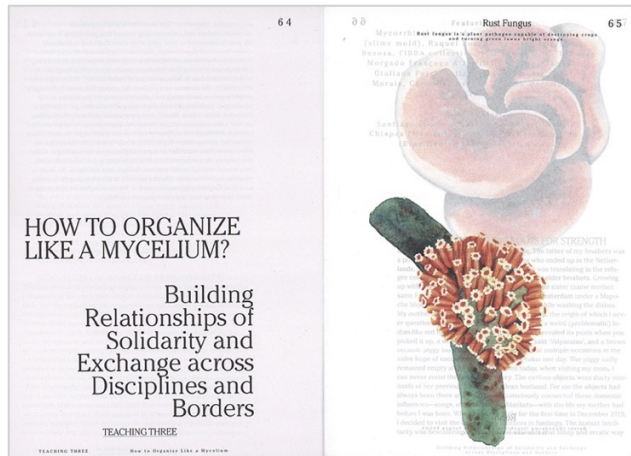


Figure 3.06 Yasmine Ostendorf-Rodríguez in (2023). *Let's Become Fungal! Mycelium Teachings and the Arts*. Valiz. Amsterdam. p64 - 65.

Teaching Ten, How to deal with insecurity? Embracing Mystery and Surprise (254), questions if we humans are really ever in control. Insecurity, from a human perspective, usually has negative connotations. Such ‘precarity’ here is extended from Anna Tsing’s work in ‘The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins (2015); it questions the human desire for security (Ostendorf-Rodríguez, 258). The way that some mushrooms may appear for a few hours in one year and then disappear, prompts Ostendorf-Rodríguez’s reflection on surprise and mystery. It leads her to consider the need for being present (as embodied), paying attention to the present (unfolding time), opening out ideas of humility and respect and how the need for control is an illusion (258). Her discussion of psilocybin mushrooms in sacred and spiritual processes in indigenous communities suggest processes to communicate and connect with nature and universe on a deeper level (268).

Ostendorf-Rodríguez’s practice-based enquiries are tied to environmentally situated local knowing – involving people, alliances and conversations. Her thinking with human collaborators and more-than-human fungi repositions relationships in knowing and being, troubling ideas of control, categorisation, memory and time. This work repairs ways of being and knowing in a relational worlding, beyond the human-centric position.

Fishy Architectures

Anja Wenger's research is at the intersection of art, marine science and architecture, through which she imagines interspecies spaces for coexistence, figure 3.07 – 3.12. This is done through fish architecture, which offers a new space for a dialogue with non-human species (Wenger et al., 2021). *'Fish Architecture is a commitment to coexist and co-create spaces of encounter and exchange'* (184). There is an eight point 'fishy manifesto', Figure 3.10, to accompany the building and iterative making process (184). The work proposes to think in terms of ecosystem, which comprises non-human animals and other organisms, and recognises humans need to be seen in an ecological context (Wenger et al. 2021, 188). Wenger has described the hours spent underwater with the fish, watching them interact and inhabit the spaces that have been repeatedly iterated depending how the fish behave, Figure 3.07. This work echoes a search for knowing and feeling between worlds, a theoretical direction questioning where meaning resides. Her work is a series of practices of mixing hybrid vocabularies, as iterative architectures between human and more-than-human worlds. It is a dialogical in-between: 'this tuning is a dynamic, a never-ending process that brings continuous evolvement rather than pristine and virgin stagnancy' (Wenger et al. 2021, 188).



Figure 3.07 – 3.08. Anja Wegner (2024) Stills from talk: Interspecies co-creation: a story of a Fish – human conversation. Rachel Carson Centre. <https://www.youtube.com/watch?v=ywnEyO9j9iY> Accessed 20/05/24.



Figure 3.08. Accessed 20/05/24.

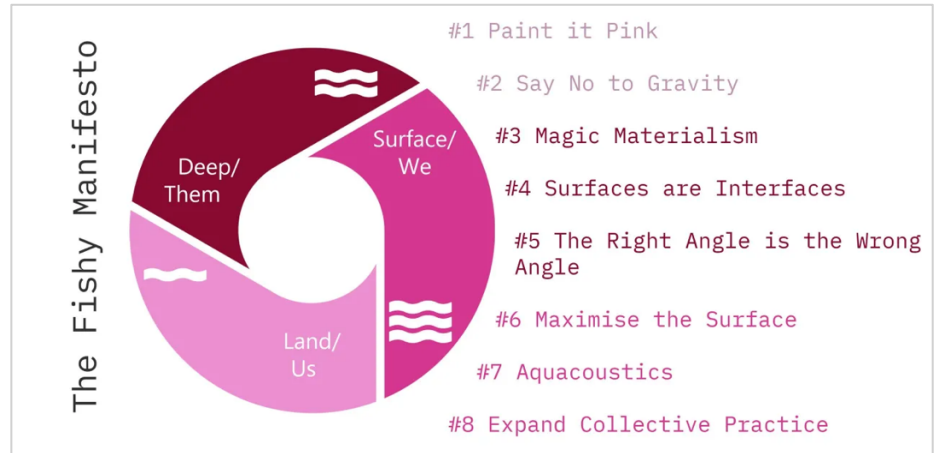


Figure 3.09. Anja Wegner [n.d]. Photograph <https://anjamilena.com/fish> Accessed 20/05/24.

Figure 3.10. Anja Wegner [n.d]. A Fishy Manifesto <https://anjamilena.com/fish> Accessed 20/05/24.



Figure 3.11 – 3.12. Anja Wegner (2024) Stills from talk - Interspecies co-creation: a story of a fish – human conversation, with Anja Wegner. Rachel Carson Centre. <https://www.youtube.com/watch?v=ywnEyO9j9iY> Accessed 20/05/24.

Figure 3.12.

Material and immaterial entanglements

Franca López Barbera is an Argentinean designer and researcher based in Berlin, whose work explores the intersection of nature, coloniality, gender, ethics and consent. In *'When a Tree Says No'* (2021), she considers the ecology of the material existence of a tree with its stories, imaginings, wisdoms that are in circulation in this space. In the essay she states *'[Trees are] communicative, relational beings, capable of enforcing or denying consent. They are part of the memory of a people and transmit their values and ways of relating to each other and to nature.'* In relation to this research, what is of particular interest is how López Barbera incorporates thinking the materiality and immateriality of the tree. It has thing-ness, but also exists in a place within the imaginings, legacy stories and memories. Ecologically, this is multiple and polyvocal. She states: *'It is not only the material space, the land – understood as the territory that people inhabit – that is destroyed, but the destruction of the territory in which relationships and knowledge is formed; the territory is understood as an inter-relational place for the production of life, of a vision of the world'* (López Barbera, 2021). López Barbera's essay questions this intersection between materialities: the materiality of things – earth, environment, tree, ground, human, hands, feet, water – and the immaterial things connected – ideas, imaginings, conversations, consent, feelings. Yet apparent immaterial things do have a supporting system of materiality – ideas, conversation, imaginings have an embodied material basis – water, cells, brain, air, even the encounter of other things.

How their practices inform theoretical direction.

The work of Yasmine Ostendorf-Rodríguez, Anja Wenger and Franca López Barbera, take the materiality, the stuff of the world seriously as a partner for knowing and being. The works pay close attention to human and more-than-human relational continuums, ideas affecting and meeting up in different configurations. Franca López Barbera considers the material space – territory, tree, ground – entangled with its immaterial relational things – memories, rituals, legacy, stories. Her discussion centres on how a tree is

given rights because of its legacy, histories and vital materiality thinking in continuums between material and immaterial affect (2021).

Anja Wenger makes an imaginative and thoughtful building in her fishy architecture, listening-in and outlining a manifesto that '*initiate interspecies exchange and co-create our mutual world*' (Wenger et al., 182). Her fishy architecture holds both fish and human ecologies together, in order to examine hybrid ways of knowing, living and communicating. This inquiry into how fish inhabit and interact, informs critical questions – how we collaborate and partner in letting in more-than-human meaning-making and what happens when other perspectives of living, being and knowing are incorporated in how we know and be. Design is being used to productivity make an in-between space, finding variance and commonality across what living and habitat mean.

Ostendorf-Rodriguez tunes in to mycelium things, seeing and feeling, allowing ways to go along thinking with and within alternate understandings of precarity, security and death, to alter ways of knowing and being. These practices provide a basis for the theoretical directions I pursue in the next part of this chapter – as embodied actual practices to form the theoretical direction that follows.

Feminist new materialism concerns paying attention to the relationship between human and world, taking into account matter – the matter that matters. Within this framing is an inter-related and interdisciplinary perspective, which challenges an anthropocentric, human-first position. Framing the human as ontologically separate from its material entanglements proves untenable in a feminist new materialism. Agency happens between things, in an affecting intra-acting space. These practices inform the theoretical allies that I examine next through the feminist new materialism of Jane Bennett, Donna Haraway and Karen Barad.

Feminist new materialism

Jane Bennett, *Vital Matter*

Jane Bennett's work on 'Vibrant Matter' (2010) critically and ontologically questions how humans have a propensity to focus on an anthropocentric prospective. In doing this, it has the effect of de-animating the more-than-human world. She asks what happens when we '*consult nonhumans more closely, to listen and respond more closely to their outbreaks, objections, testimonies and propositions*' (108). In questioning this disconnect between, human and non-human, Bennett states that what is needed is a '*cultivated, patient, sensory attentiveness to nonhuman forces operating outside and inside the body*' (xiv). This is paying attention to the self, in order to create a sensory attentiveness to the other and is pertinent as it points towards procedures that implicate the vital, more-than-human world, as partner in political stakes, '*to give voice to thing-power*' (2). She is troubling the separated-out, individual human, reconfiguring them to be an involved and contingent part of the environment, looking from within, '*the extent to which human being and thinghood overlap, the extent to which the us and the it slip-slide into each other*' (4). She is troubling individual human, reconfiguring them to be an involved and contingent part of the environment, looking from within.

It is particularly interesting when she discusses the otherness of being human. This implicates more-than-human as a part of *human being* status, as reciprocal relationship of both bacterial and human cells, discussing the vitality of bodies, moving from distinct categories of beings: '*we are...an array of bodies, many different kinds of them in a nested set of microbiomes*' (2010, 112-13). This partially informs me selecting a cemetery as the site of my practice, because it involves human being and not being, offering ideas of living and dying as continuums of each other. Conceptually, this blurs the boundary between human and the more-than-human. This is useful, in thinking philosophically about where agency resides, inquiring whether it is distributed between human and more-than-human. There is a breaking with Western thinking that agency is somehow exclusive and

owned by human, nature as something separate and external, a background. Bennett wonders whether we could be more attentive to this foreignness that we are, and if so *'would we continue to produce and consume in the same violently reckless way'* (99). Jane Bennett disturbs ideas of human separateness, the individual human story perpetrated in modernisms, pointing towards binary oppositions as no longer holding up.

Donna Haraway; situated knowing.

To consider theories of relationality between human and world, Donna Haraway provides a productive theory to think with location, seeing, being, knowing from a particular place. Her work can be considered as an epistemology of location (1988, 589), which examines the idea of meaning-making as always having material locus. Seeing and knowing, as a human, is never from nowhere (1988, 584). Haraway's knowing and seeing is 'earth wide', a commitment to faithful accounts of a real world (579). *'The knowing self is partial in all its guises, never finished, whole, simply there and original; it is always constructed and stitched together imperfectly and therefore able to join with another, to see together, without claiming to be another'* (586).

In chapter 2, I started out with a discussion as to how visual communication design privileges objective and rational ways of making communication through modernist approaches. Haraway's position troubles ideas as objective, separate and individual view of the 'conquering' Western eye (586), *'The view from above, from nowhere, from simplicity, from objectivity'* (1988, 589). Haraway's *'Staying with the Trouble'* (2016) makes this case to look from the partial seeing place as contingent, involved, incorporated. As a visual communication designer ordering compositional spaces for communication takes on a critical perspective in her sense of using the words composite and compost (2016, 102) as a 'making with', as a *'sympoiesis'*. This connotes a closer perspective, when putting things together and acknowledges that we are part of the world we want to know, in making with the world. *'Who and whatever we are, we need to make-with,*

become-with, compose-with, the earth bound (2016, 102). Donna Haraway's 'situated knowledges' and 'semiotic-material technology' (1988, 585). Haraway insists *'on the embodied nature of all vision and so reclaims the sensory system that has been used to signify a leap out of the marked body and into the conquering gaze from nowhere'* (581). This alters the view point, the perspective, where it becomes an entanglement, as constituted messiness in attachment, in the world.

Donna Haraway's work discusses the idea that nothing is reflective or mimetic but produces diffractive ways of knowing and being (1988, 586). This connects into important theoretical developments of the material-semiotic. Karen Barad picks up on Haraway's discussions about reflection as a mirroring and about sameness, whilst diffraction makes new patterns of difference (29). Haraway's material-semiotic becomes what Barad calls a diffractive methodology (2007, 94). In Franca López Barbera's essay, 'When a tree says no' discussed at the start of the chapter, there is a qualifying of this theoretical position in both Bennett and Haraway's work, when she says *'The material and the immaterial are mutually constituted and constituent of the world'* (2023). The materiality of the tree and the immaterial stories and memories of the tree are constituted parts. When things meet up – between materiality (world, environment, bodies) and discursive things (imaginings, stories, histories) – these are entangled dependent partners. I will discuss this material-immaterial inter-dependency using Karen Barad's 'material-discursive perspective next.

For this research a 'diffractive methodology' (2007, 94) is pertinent to be considered as a type of encounter when things meet-up and interact. Interaction design becomes an affecting *intra-acting*. The important theoretical question posed by feminist new-materialism, is where does agency reside when things meet up. In this framing, agency is between things, affecting and not held by any entity. I will consider how mattering matters through the work of Karen Barad.

Relevant to this discussion is what this theoretical position means for a referential idea of technology in the world. Donna Haraway's framing is one where to be human is an entanglement with technology – *'All eyes, our own and ones made available in modern technological sciences – these prosthetic devices...are active perceptual systems, building on translations and specific ways of seeing, ways of life'* (Haraway, 1988, 584). Technology is an implicated part of knowing, seeing and being: in acknowledging our semiotic-material technology, we can guard against *'ways of being nowhere while claiming to see comprehensively'* (Haraway, 1988, 584). This perspective on how we know and perceive in the world, calls on humans to name the technology with which we perceive and know; acknowledging our cyborg-ness (1988) and our tools that reach, as prosthetics, into the world is part of our seeing and knowing.

Karen Barad's 'material-discursive' framing, when things meet up.

'Language matters. Discourse matters. Culture matters. There is an important sense in which the only thing that doesn't matter anymore is matter' (Barad, 2007, 132).

This quote from Karen Barad connects the discussion about the relationship of material and meaning. In the next section I examine her questioning of why matter needs to be taken seriously as a constituent part of being human. The common thread linking the work of Bennett, Haraway, and Barad is a feminist new materialist position that relinquishes a Western ontology, de-animating the more-than-human as backgrounded. New materialism abandons divisions as binary opposition (culture /nature, human/non-human or mind/body) that promote or emphasise one part of these pairings. Instead, the focus is on the happenings between things, to see the constituting affect between human and more-than-human relationality.

Karen Barad's diffractive methodology concentrates on a *'material-discursive'* frame (2007, 34). What this means is that the dialogic must intra-act with materiality, as I will go on to explain. The focus is on the doing or

performative aspects, the connective ways in how we are and what we know in the world when things meet up. In Barad's book *'Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning'*, she uses physics and the material world to provide tangible evidence to the theoretical and methodological position that no agency is held by entities: *'Matter-in-the-process of becoming iteratively enfolds into ongoing materialisation'* (Barad, 2007, 179). Agency only resides within a betwixt and between space, through a material-discursive meeting.

In this research, it is an important framing, as concepts, thinking and discursiveness always perform in an ecology of material dependency. The main point of interest, in relation to visual communication design is that the dialogic must intra-act with materiality as happenings are distributed between things. *'To be entangled is not simply to be intertwined with another, as in the joining of separate entities, but to lack an independent, self-contained existence. Existence is not an individual affair. Individuals do not pre-exist their interactions; rather, individuals emerge through and as part of their entangled intra-relating.'* (Barad, 2007, x).

I will now elaborate Barad's position in relation to word (language)¹³ and world (materiality) as this specifically connects to visual communication. Barad points to the anthropocentric narcissism in questioning how 'word' got to be so important, and how it got to stand out in front of the world (144). She discusses how word, or language, has too much power (144). Barad counters this human-first position by saying the discursive always has a material, referential tie. This is a re-attaching of word and world together (144). Here, I am using this conceptually to think of an affecting interaction¹⁴ as Barad calls an *intra-action*.

Barad presents a generative/causal explanation for discursive practices as related to material phenomena (2007, 45). Her 'material-discursive' frame

¹³ Word, in this context is the a holder of all types of language, concepts of a text and a visual text.

¹⁴ Intra-action here refers to an affecting interaction. When encounter happens, when things meet up, a new variance or patterning is made which is more accurately referred to as 'intra-action'.

has developed, in part, from Haraway's material-semiotic, where nothing is reflective or mimetic but produces diffractive ways of knowing and being (1988, 586). Haraway's material-semiotic framing has been developed further into a material-discursive one that Barad calls a diffractive methodology (2007, 94). The focus is on a performativity through 'intra-action' – where involvement is affective – spilling into other ways of knowing and being, that produces diffractive patterns (Barad, 2007, 30). What is pertinent is that interaction between things is not simply a connection, where things stay the same, but rather that a disturbance happens, things change, and are newly made. It is not a bridging action, but rather an interference pattern: *'Agency is a matter of intra-acting, it is an enactment'* (2007, 178). This concept of interference pattern is productive because when things meet up something else is created – intra-action makes variances. This leads into an inter-dependent relational ontological perspective, as unfolding, an always within a becoming world.

The discursive always has a material dependency. Barad calls the discursive *'the local sociohistorical material conditions the enable and constrain disciplinary knowledge practices such as speaking, writing, thinking, calculating, measuring, filtering. Discursive practices produce rather than describe the subjects and objects of knowledge practices. They are not ahistorical or universal abstract laws defining the possibilities of experience – but actual historical and culturally specific social conditions.'* (2007, 147). Barad's building on Haraway's work allows me to position knowledge not as an abstract disconnected thing, but as having location. It applies to acknowledging the technology with and where the seeing and the knowing is made and seen from. López Barbera's discussion, again is useful to reiterate, this material-immaterial connection – territory, tree, ground as entangled with its immaterial relational things – memories, rituals, legacy stories. This is a material-discursive perspective, as constituent parts. The verbs Barad outlines in the quote above, words like thinking, measuring, filtering, are constituted practices in the world that create and conjugate these things, and produce something new through intra-action. All

things are ‘super-positions’ on the way to becoming. Things are unfolding, in that the in-between is agential, where happening happens.

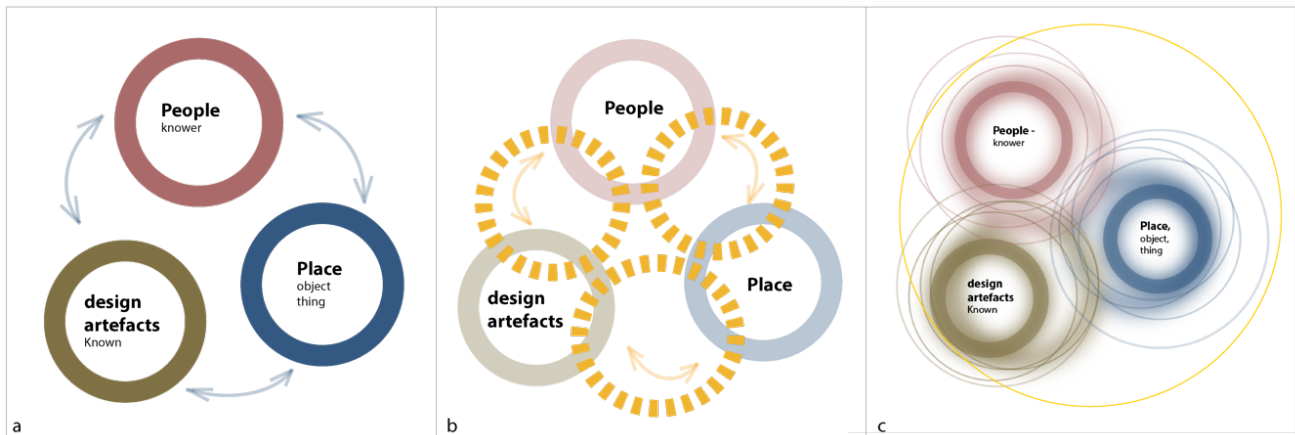


Figure 3.13. Modelling Karen Barad's 'material-discursive' framing.

I have made a three-point model to think through the different figurings, which move toward what Barad outlines as an onto-epistemological positioning where being and knowing are inter-dependent things. Figure 3.13a outlines a modernist overhang in the Western cultural thinking of ‘things’ and their interaction in the world as entity orientated. People, place and things are boundaried, and are not affected or changed in a meet up. In this framing *‘Interaction assumes there are separate individual agencies that precede their interaction’* (Barad, 2007, 33). Then in Figure 3.13b I have outlined, in the yellow dashed circles, the space into which I am enquiring: this is where the happenings happen, where performativity and materiality meet and where my attention needs to be. Barad says *‘we are part of that nature that we seek to understand, interactions among component parts of nature’* (Barad, 2007, 26). Figure 3.13c, then, is an attempt to sketch out the entangled nature of being, living, experiencing and knowing as entwined and dependent on each other. This is denoted in blurred lines that affect each other. This gives a material-discursive dynamic where things, being and knowing can’t act alone: *‘Making knowledge is not simply about making facts but about making worlds’* (2007, 91). The circles that were solid and

un-affected in Figure 3.13a, don't form clear demarcations in Figure 3.13c. This material-discursive positioning allows a conceptual tool in connecting place and things into its 'always becoming', processual space, where agential happening is between. This is relevant and connects with my discussion in semiotic movements, where I critically examine the scope of meaning-making extending beyond a human-only positioning. The interaction designer becomes an *intra-action* designer where encounter matters - affecting, disturbing and making interference patterns through encounter. '*Intra-action signifies the mutual constitution of entangled agencies*' (Barad, 2007, 33).

Karen Barad iterates this position technology plays as part of knowing and being. Through the work of Niels Bohr, Barad discusses how making explicit the techniques, technologies, concepts and methodologies as constituted parts of knowing is necessary. She says '*Our ability to understand the physical world hinges on our recognising that our knowledge making practices, including the use and testing of scientific concepts, are material enactments that contribute to and are part of the phenomena we describe*' (Barad, 2007, 32). This follows on from Haraway's acknowledging human and technology to be entangled and dependent. In this research, this is relevant because it lies in an ability to deepen the connection between human beings, our surroundings, and knowledges, acknowledging their interdependence with environment and technology. Niels Bohr's work included the apparatus as material arrangement: '*Apparatuses produce differences that matter, they are boundary-making practices that are formative of matter and meaning, productive of and part of, the phenomena produced*' (Barad, 2007, 144).

Feminist new materialism provides a theoretical grounding where matter is a serious part of knowing and being in the world. The dialogic is dependent on the material: it is a material-discursive position. This positions the argument for more-than-human as partnering meaning-making, which is supported theoretically in the discussion on Haraway and Barad's framing that agency happens in the meet up between. This is relevant here in my

forming of ideas of encounter, that will be further explored through interaction being an affecting 'intra-action'. Importantly, my theoretical argument is that if agency is not held, owned by human, this supports an exploration of the de-centring position of human, as partner in meaning-making. This will be further explored in the next section on semiotics as I consider the semiotic positions humans live within and what is outside this, constituting into a sensing and knowing in the world.

Semiotics – meaning-making that lets in more

Why semiotics

At the start of chapter 2, I discussed visual communication design's role in '*interpretation*' (Lupton, Abbot Miller, 1996a 65), understanding visual language as inclusive rather than exclusive in re-engaging perception as part of linguistic interpretation (1996a). Gunnar Swanson in his essay 'Graphic design education as a liberal art' discusses it as a '*language in its broadest sense*', as a system of meaning-making, a set of cultural, semiotic and interdisciplinary practices for shaping meaning (1994, 64). Graphic design mediates meaning through visual form (Drucker, 2014). These important points will be further explored through semiotics, its symbols, marks and inscriptions pertaining to meaning-making.

At the start of this chapter I considered the creative practice of Yasmine Ostendorf-Rodríguez, Franca López Barbera and Anja Wenger, which pointed to critical practices in ways of knowing partnering alternate more-than-human knowing in mycelium encounters, fishy habitats and an ancestral tree. This disturbs the ontological dualisms of a nature-human divide. The practices outlined in their work inform theoretical perspectives I have mobilise through Barad and Haraway's material-semiotic and material-discursive, and through their commitment to incorporating knowing, making and storying between the world and human. These practices inform and support the following examination into semiotics, pointing out how knowing is a relational-material praxis. The next part of my theoretical work

questions where meaning resides within this material-discursive perspective.

What is semiotics

The development of semiotics¹⁵ comes out of linguistics. It is the study of sign-systems relating to the meaning in language. Linguist Ferdinand de Saussure developed the theory that considered language as a system of dynamic relationships, with 'sign' being the basic unit. Semiotics, in relation to visual communication design, is the visible elements of language – alphabets, words, icons and images. The signs and symbols are a learned practice from within human cultures, which are built upon from early childhood and then practiced in everyday, lived experience. It is mark-making held within writing, reading and the images we make, but which all predominantly exist with a self-referential human-to-human communication. This is the semiosis in which visual communication and its associated graphic design operate. This disciplinary development, from a modernist framing for visual communication, was discussed at the outset of chapter 2. In that position, human-centred meaning-making practices negate many knowledges that account for or try to move beyond a human-only one since language is seen as apart from the world and its context (Barrett, Bolt, Konyur, 2017, 3).

In what follows now, I will discuss Michel Foucault's 'The Order of Things' (2002) where he writes about the history of ways we have ordered knowledge and our relationship to it in different eras. This gives insight into developments of structuralist and poststructuralist semiotic beginnings, to explain where visual communication semiotics sit today.

I will then move to challenge this narrow semiotic system, through a performative semiosis put forward by Deleuze and Guattari. For this

¹⁵ The definition of semiotics in the Oxford English Dictionary is – The science of communication studied through the interpretation of signs and symbols as they operate in various fields, especially language. <https://www.oed.com/view/Entry/175724?rskey=z0Wan6&result=2&isAdvanced=false#eid> accessed 18th April 2022.

research, the crucial question they ask is why can there not be a meaning-making practice that accounts for more than our human-only regimes of signs, to include a semiotics of a worlding, sensing, affective knowing of which we are part (2014). Importantly, their philosophy discusses differing 'regimes of signs' in which they form a conceptual methodology that draws connecting lines between ways of knowing – what is inside and outside a human understanding of knowing. Their argument is for a semiosis that accounts for more than a human-only one.

Michel Foucault; prelude to a critical semiotics

In 'The Order of Things' (2002), Michel Foucault discusses the ontological shift relating to how we order knowledge and hence our relationship with the world. He outlines how different orderings of knowing have ebbed and changed over a 700 year history, charting humans' relatability to how and what we know in the world. His work is significant because it establishes that we humans have adhered to and changed our relationships to knowing and knowledge practices over the course of this time. This has ontological repercussions, depending on the ways we order this ordering. What it shows is that if we are open to it, there is a plasticity to possible new relational orders.

Foucault's thesis compares the changes that occurred before and after the mid-seventeenth century. Before this period, humans' relationship to knowing was an expressible and visible ordering, an interwoven thing, dependent on an adjacency to place – he calls this a 'convenientia' (2002, 20). Knowledge, in this respect, is a knowing where one says, 'I know this because it is beside that'. This is a language described as analogy, similitude, resemblance and relation, materiality is a referential forming part of knowing and understanding; meaning-making. The effect of this type of knowing is interwoven within the living experienced world, as a perpetual commentary. Figure 3.14 models these comparative differences – on the left side, this adjacency of things and place, as dependent on knowing.

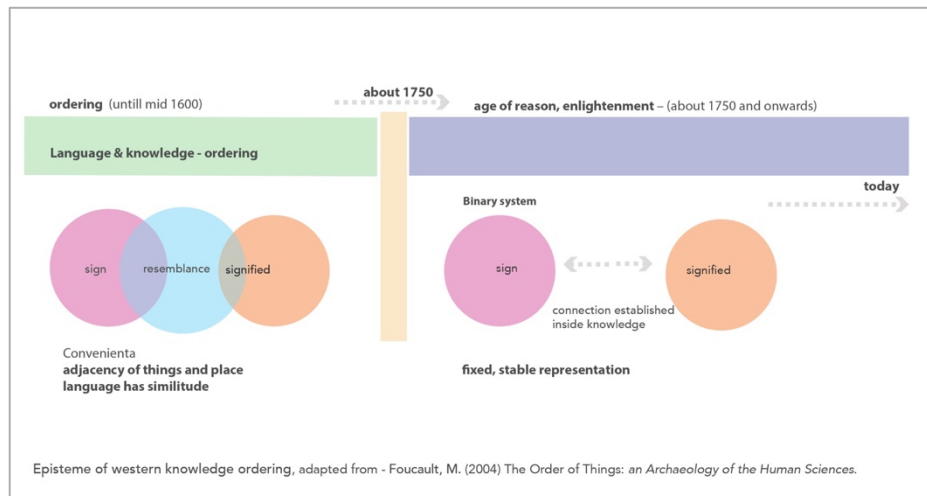


Figure 3.14. Model outlining epistemes adapted from Michel Foucault, (2022). *The Order of Things*.

Gradually between about 1650 and 1750, a schism opens up (Foucault, 2004), Figure 3.14. This marks a period of scientific discovery, the Age of Enlightenment. Here we get a gradual stabilisation of what accounted for knowledge, built upon categorical arrangement that moves toward the development of a scientific rationality. This denotes a knowledge as absolute certainty and with boundaries. This ordering establishes the relationship of language and knowing as a connection within the knowledge itself, independent of place, and forming the basis for the ordering and structuring of the stories we tell ourselves today. That is, as I have indicated in Figure 3.14, a binary system somewhat abstracted from the 'convenientia' as an adjacency of place. This referential between sign and signified is established as independent of place.

From this time on, this ordering of knowledge places rational, scientific, and objective as foregrounded. It is the legacy in the development of visual communication design built upon from the start of the 20th century, stabilising this emphasise of knowledge as objective, rational and privileging objectivity. The development of knowledge, thereby moves in this direction, allowing it to become increasingly dislocated. This connects to my previous

discussion of Bruno Latour's work, in *Visualisation and Cognition* (2012) which concurs with this as a type of immutability. The next discussion I open critically argues for a widening in scope that cuts into this immutability. This will function to let in more sensing, more ways of knowing to be part of meaning making.

Before reaching the critical semiotic position led by Deleuze and Guattari, I first discuss the semiotic legacy I live within. I then ask how can a human-only semiosis reach across to acknowledge signs, marks and sensing that are outside my regime of knowing. This is not about an either/or, but rather its constituted relational thinking, which troubles the establishing of binary oppositions. I start with semiotic beginnings and its relationship to visual communication design.

Semiotic beginnings

I have established what semiotics is and its early development. Linguist Ferdinand de Saussure's development of semiotics, known as structuralism, becomes the dominant legacy for visual communication design, where the rules of language position the subject within a network of unstable meanings. Semiotics derives from linguistics, but is an important part of visual communication design, because it involves the visibility or tangibility of sign, inscription, mark-making, as type and image for meaning-making; creating meaning in communication. In this development, language is seen as separate from the world, and its context (Barrett, Bolt, Kontturi, 2017, 3). The sign is the relationship of signifier and signified, as noted in the right part of diagram Figure 3.14.

Contemporaneously, but developed separately, the philosopher Charles Sanders Pierce developed another line in semiotics. Pierce's model considered the broad notion of context as influencing interpretation and the material nature of the sign as having consequences for our behaviour (Davis, 2012, 125). The duality of the sign, as both an object in the concrete world and as a mental artifact, is fundamental to Pierce's work. This marks the primary difference between his work and that of Saussure,

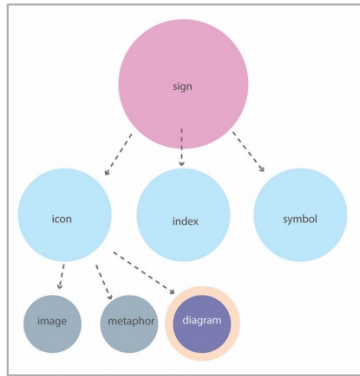


Figure 3.15. Charles Pierce's tripartite semiotic divisions – in which Deleuze and Guattari take up the idea of 'diagram'.

(Davis, 125). Pierce develops a tripartite division of sign into icon, index and symbol. Icon – splitting three ways again into 'image', 'metaphor' and 'diagram', denoted in Figure 3.15.

In most discussions that relate to semiotics and its influence on visual communication design, all elements are concerned mainly as visible language within the order of 'representation'. In examining references of semiotics and its use in visual communication – its visibility; its inscriptions are all referenced only in relation to icon, image, metaphor, symbol. There is no reference to the icon 'diagram' relating to visual communication and semiotics (Crow 2016; Steane 2013; Davis and Hunt 2017; Davis 2012). The reason for this is because visual communication sits mainly within 'representationalism' – as doing the job of standing in for, as proxy. I will go on to discuss how the icon 'diagram' is a necessary tool/method for an active performative discursive language that can widen the scope to include the more-than-human in meaning-making. The next section outlines that 'diagram', conceptually, but also practically, is important in developing relationality between human and world.

Diagram as methodological

Deleuze and Guattari's broad philosophy is based on a rhizomatic theme that reaches across regimes of knowledges, disciplines and languages to include a wider spectrum of knowing for a becoming, performative world (2014). Central to my consideration of semiotics is Deleuze and Guattari's important question: why can't there be a meaning-making practice that reaches across from our regimes of signs¹⁶ into the semiotics within the worlding system of which we are part?

Drawing on Peirce's semiotic theory, their work conceptually develops the notion of the 'diagram', framing it as an integral part of what they term their 'abstract machine' (2014, 165). This, they argue, escapes a self-referential, closed system of a 'signifying' semiotics that we humans operate within. In this regime of knowing *'the sign that refers to other signs is stuck with a strange impotence and uncertainty'* (Deleuze and Guattari, 131). This research is examining a possibility for visual communication design – as an extended active, doing epistemology – to consider its constituting function as joining with and across regimes of knowing. The survey of artistic and research practices at the start of the chapter, demonstrates this, in their acknowledging material and worlding positions, as a knowing and listening-in, between human and world. Figure 3.16 shows this disconnect between knowing semiotic systems, separate and self-referential. Deleuze and Guattari argue for a semiosis that accounts for more than a human-only one. *'The diagrammatic or abstract machine does not function to represent, even something real, but rather constructs a real that is yet to come, a new type of reality'* (164). In their framing Figure 3.16b outlines what I believe is their position – where the world is an entangled partner in knowing and being.

In this introduction to semiotics, meaning-making within a human-only perspective negates many knowledges that account for, or try to move

¹⁶ Deleuze and Guattari refer to human-only signing systems as 'signifying semiotics' (2014, 137). A semiotic practice that includes the more-than-human is referred to as 'pre-signifying semiotics' (136).

outside a human-only one. This research is about building methodology to defer anthropocentric only perspectives, in order to see, listen-in, sense and feel other ways of knowing. The theoretical examination of feminist new materialism and a critical semiotics provides the basis for a semiosis with diagrammatic reach across regimes, human and more-than-human, allowing a relational connecting function for a wider spectrum language-ing.

Deleuze and Guattari think through semiology, methodologically, for a processual language-ing to connect between regimes of signs, that is a semiotics in a human-only sphere connecting into a more-than-human one. This conceptual framing in my view has pragmatic possibility, to operationalise alternative semiotic perspectives; meaning-making possibility to partner other ways of knowing and being in the world. What worlds get drawn together in doing this – between materiality and human, drawing transversally – difference and variance. The viscosity and action of diagramming is in drawing connecting lines between things. This speculative criticality allows me to consider ‘what do scenarios of entangled semiotic positions do to give alternate perspectives?’. How do we as human connect into being part of a larger relational encompassing system that is always a becoming state? Diagram, I establish, is part of a methodological approach where things get drawn together to develop a generative relational tool.

Deleuze and Guattari establish ‘lines of flight’ (2014, 166) that move out from the tight regime of a signifying semiotics,¹⁷ allowing new imaginings to unfold: *‘The diagram knows only traits and cutting edges that are still elements of content insofar as they are material and of expression insofar as they are functional, but which draw one another along, form relays, and meld in a shared deterritorialization’* (Deleuze and Guattari, 2014, 165).

¹⁷ Deleuze and Guattari call a human-only meaning-making regime a signifying semiotics

This releases signs from the solely ‘representational’¹⁸ signifying, semiotic perspective role in visible language – the sign as signified and signifier, with icon, index, symbol. Signs are inscriptions, marks, lines, visible parts of language that form a doing, performative positioning, contributing to making different ways of knowing, as a reading across or between function. What this means is that the scope is widened to transverse between human signs as knowing and more-than-human marks as alternative partners in knowing and being. The diagramming, methodologically, opens up the semiotic space to allow dynamic meaning-making that is on the move (Stjernfelt, 2000, 379). Stjernfelt points out how, in Deleuze and Guattari’s work, this liberates thinking into a more processual and interpretative role (379).

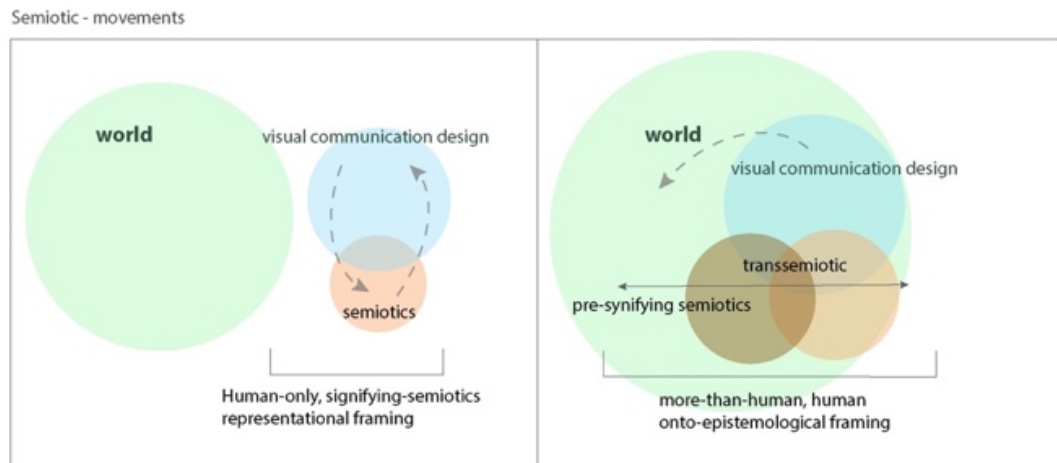


Figure 3.16a - 3.16b. Modelling semiotic perspectives as human-only self-referential perspective and as constituted partner in world.

Why new materialism and critical semiotic positions matter

In chapter 2, visual communication plotted a trajectory from modernism design through feminist, more complex, polyvocal states, into work where visual communication is a transdisciplinary partner in making knowledge. This current chapter functions to underpin an ontologically facing design

¹⁸ Karen Barad discusses this folly in thinking words, concepts and ideas accurately reflect or mirror the things to which they refer, which is why ‘representationalism’ needs deferring (2007, 86).

practice with theoretical alliances in feminist new materialism and a critical transsemiotic position. This widens the scope of what and with whom knowledge is made, informing methodological thinking for an ontologically facing visual communication design. The question to be further explored is what are the methodological strategies for visual communication design that constitute with other knowledges to connect into a relational worlding. As Deleuze and Guattari say *'enunciation is collective, statements themselves are polyvocal and substances of expressing multiple'* (2014, 156).

Transversal lines, as diagram, examined in their work can cross regimes of signs and materiality, opening up glimpses between my knowing, but more importantly my not knowing, moving into a relational more-than-human knowing. Deleuze and Guattari's inclusion of a worlding semiosis disturbs and stammers a human-only focus, emphasising a meaning-making, opening out to a wider spectrum where world is included. This is knowing before knowing, they call a *'pre-signifying semiotics'* (137). Deleuze and Guattari's petition is that this –

'fosters a pluralism or polyvocality of forms of expression that prevents any power takeover by the signifier and preserves expressive forms particular to content; thus form of corporeality, gesturality, rhythm, dance and rite coexist heterogeneously with vocal forms... it is a segmentary but plurilinear, multidimensional semiotic that wards off any kind of signifying circularity' (2014, 136).

Differing regimes of signs will be further explored in chapter 5 that can account for variable differences and relations. The practice projects at the start of the current chapter inform my understanding of a critical semiotic space between material and immaterial. Superflux's, 'The Ecological Intelligence Agency' project, discussed in chapter 2, allows the River Roding to have a voice as a speculative mix in artificial intelligence and poetry that partners with scientific factual perspectives. Marshmallow Laser Feast's 'Breathing with the Forest' considers how a tree's cellular respiration, the

consummation of oxygen and release of carbon dioxide as a variance of rhythms in breathing, allowing a meeting up of these processes as a transversal *diagram* between human and more-than-human. Anja Wenger's project 'Fishy architecture' enables us to think speculatively and critically with fish as a means to discover alternate stories of home and habitat and thus supporting a material-discursive space, as a difference, as relationality.

This chapter has set the theoretical scene to think of human as contingent, inter-woven and implicated; being is part of an ecology of happenings, moving away from anthropocentrism. In taking Deleuze and Guattari's transsemiotic regimes of different knowing systems – this can be constituted to make a wider spectrum worlding semiosis. Feminist new materialism allows me conceptually attend closely and think about the spaces between, where differences and meaning are made, agency happening in the space between. New materialism and transsemiotic framings underscore my theoretical understandings that I will be further explored in practice in the subsequent chapters.

Rosi Braidotti echoes the main theoretical alliances I forge in this chapter through Jane Bennett, Donna Haraway and Karen Barad when she says – why can't we reach out across to our world as partner, as community, as co-composer: *'The answer is in the doing, in the praxis of composing "we, a people", through alliances, transversal connections and in engaging in difficult conversations on what troubles us. In this respect, our posthuman times, with their large inhuman component, are all too human'* (2019, 19).

Chapter 4:

hybrid methodology & method

Introduction

Based on the theoretical framings of feminist new materialism and critical semiotics already established, I will now articulate the hybrid methodology with which I am working. In examining visual communication design as a discipline in relation to anthropology, archaeology and ethnography, in particular this establishes alliances that point towards a hybrid set of methods I put into practice in the subsequent chapter, Archaeologies of Encounter. Having put forward Deleuze and Guattari's ideas of a *reaching between* semiotic spaces, like a thread; a diagrammatic line, here I go on to examine ways to build a methodology for the experimental designing practice that I will evidence in chapter 5. My discussion centres, at the start of this chapter, on anthropology, archaeology and ethnography, taking each discipline separately, to outline the affordances that are productive in making a hybrid methodological tool-kit. Anthropology is about relationality between things – humans, cultures, things and place - and relations between relations. I will discuss the proximities established in anthropology and design and design anthropology. This provides direction in thinking of a wider time horizon, between pasts, presents and futures as durational temporalities that are threaded into this research.

Archaeology allows me to question ways of digging into and excavating knowledge structures and orderings. Michel Foucault critically applied archaeology to delve into structures and ordering of human knowledge and meaning-making through recent histories. I revisit his conceptual use of archaeology in relation to making knowledge. The particularities of archaeology – field-study, digging into ground; closeness to earth, point to ideas of proximity to materiality. This allows me to critically question, the constituting nature of visual and visible language in our being and knowing.

Ethnography is examined because it is defined as a practice that produces descriptions and observations about ways of life. I examine its initial position in categorising and othering people as a colonising project to one

that critically questions who does the describing, who and what is being described. Ethnography, critically applied, can be a way of closely paying attention, listening in to interstitial spaces through the dynamic developments in critical performative ethnography.

The discussion then considers the methodologically important parts for visual communication design through questioning participatory design legacy. I discuss feminist developments that challenge the centrality of the designer – what is being designed and whom is being designed for. A critical participatory design allows a questioning of what and who participates. This is useful in relation the theoretical discussion at the end of the last chapter, acknowledging the meaning-making potential of the more-than-human. This opens a question in relation the more-than-human participation in meaning-making, that I bring into practice in chapter 5.

The second part of the chapter concerns methods that arise from the disciplines I have examined and how they are mixed together. I first consider ideas of movement and performativity in walking as a research method. Walking gives rise to seeing, drawing, stopping, pausing and listening-in, acting as a primarily tactic in tuning into my rhythms – mine and others. Secondly, I consider designerly methods of making visible and evidencing, in methods of capture, through ways of evidencing, using design principles, cataloguing, drawing-writing-tracing.

These are two main themes that gather other relational methods. This chapter functions in forming hybrid methods in which to operationalise ways of knowing and being that is relational between human and world. If in the last chapter I conceptually and theoretically considered *materiality* – as part of knowing and *meaning-making* – to allow a wider scope of what and who makes meaning – this chapter is about unfolding practices in which to operationalise this. The philosophical, conceptual and theoretical positions inform these methods that in turn make a hybrid tool-kit I take to the next chapter, Archaeologies of Encounter.

Anthropology

Anthropology is the study of relations – traditionally human relations to things, places and cultures. It is the study or description of human beings or human nature. This is a productive field of knowledge as it emphasises connections and comparative spaces between humans in the world. Marilyn Strathern's critical perspective goes further, seeing the discipline's main concern being 'relations between relations, not just people to people systems' (Strathern, 1995, 15).

Anthropology and design are already developing symbiotic relationality to each other. Recent scholarship charts these interconnections through 'design anthropology' (Clarke, A. J., 2018; Smith, R, C, et al. 2016; Salazar J F, et al., 2017). Alison Clarke (2018) discusses this as a relational linking, where materials and objects should be seen as 'actors'. This is drawn from Bruno Latour's actor network theory, but in my view it can also be seen in the light of a material vitalism in the work of Jane Bennett. Design Anthropology widens a contextual visibility from the present tenses into pasts. Ton Otto and Rachel Charlotte Smith call this the '*extension of the time horizon to include the past and long-term future*' (Gunn W. Otto T & Smith RC, 2013, 11). '*Design anthropology integrates this rich tradition of contextualisation and interpretation into the tasks of design, emphasising the generative role of theory in developing design concepts and critically examining existing, often implicit frameworks*' (Gunn W. Otto T & Smith RC, 2013, 4). Design lends habits of propositional, speculative storying with the propensity for future scoping and planning, looking for 'what if' scenarios. This 'what if' or 'might be' framing changes designing into a critical activity, encompassing social and ecological concerns (Gwilt and Williams, 2011, 83).

In this research I read anthropology and visual communication design disciplinary influences into each other. Anthropology provides a connective and comparative trajectorial reach between pasts, presents and futures, while visual communication design makes visible the marks and inscriptive designing of language forms. The relevance is its ability to connective as a

comparative thread that links designing into this contextual reach across differing durations,¹⁹ combining an ability for knowledge, communication and its visible traces to move along, between and across time horizons, encompassing ideas of what performs in proximal and varying durational rhythms.

Archaeology

Archaeology is positioned within the wider discipline of anthropology, defined as the study of past peoples, societies, and cultures through examining the traces and things left behind, such as artefacts, burials and structures. Traditionally archaeologists collect pieces of human artifacts, their descriptions, contextual geological ground layers, rock types, charting the depth of these objects in order to study particular peoples, their societies and cultures. It is done through excavating, recording and analysing material remains (OED, n.d).

Tim Ingold's perspective on archaeology discusses the need to shake off the determination in the antiquity of things to one that connects past, present and future (Ingold, 2013, 81). He takes the word 'record' to become a 're-cording' task, an enquiry that traces a trajectorial movement between these 'in forming' things (81). *'The past is assembled as a matrix for the ongoing continuation of life'* (Ingold 2013, 83). Changing record to re-cording elevates the in-animate archived object stuck in the past, to a possibility of performing, through this *re-cording* into presents. This tallies with design anthropology linking in and incorporating continuities within widens time horizons.

Michel Foucault, in 'The Order of Things; An Archaeology of the Human Sciences' (2002) thinks with archaeology in relation to the structures of knowledge and meaning over recent European cultural history, that I have

¹⁹ This discussion on synergy, between design and anthropology refers directly back the use of the word 'record' as 're-cording' that I quote in Chapter 2, from Tim Ingold's work – *'Record becomes a re-cording task, that traces trajectorial movement between things'* (2013, 81).

discussed in chapter 3. He focuses on historical discourse to uncover other systems in ordering knowledge at particular times in history. Delving into a recent history of shaping and arranging knowledge, its ordering and structure, that are fitting to think with for designing practice. This allows me to think with archaeology as a digging and excavating into visible language and it's structures as a designer. As an ode to Foucault's work, this archaeology of orderings, I have called the next chapter an 'archaeology of encounter', because it is a critical excavating and digging-up of correspondences, discourse and encounters, as traces and evidences, in a situated place.

Within a new materialist conceptual framing in my excavating and evidencing active discursive enunciative aspects of visual language, this is productive in doing fieldwork. I have discussed, in chapter 3, Michel Foucault's evolution in relational meaning making, through the Age of Enlightenment, to a rational objective way of knowing. The current chapter now positions methods between archaeology-design. I am examining the synergies as a reaching-between methodology in a transsemiotic enquiry; this space between human and more-than-human regimes. This as a practice to connect materiality and immateriality. What is pertinent are the connecting lines between the pastness of things, allowing an ongoing movement to the present, and speculatively moving further to what is propositional, possible and imaginable. In an acting, performative perspective, this re-cording allows me to draw connections between timings or rhythms as correspondence.

Ethnography

Ethnography is a form of enquiry that produces descriptions and accounts about ways of life (Denzin, 1997, xi) – between peoples, societies and cultures. Ethnography combines two Greek words – *ethnoi* meaning others, a plural noun and *graphein*, the verb to write (Denzin and Lincoln, 2011, 39). This denotes ideas of recording, writing, observing the other. As a method of enquiry this questions from the outset, who does the describing

and who is being described. Historically, ethnography was an anthropological and colonial practice in othering people, their societies, knowledges and cultures (Denzin & Lincoln, 2011, 38).

Norman Denzin, in his detailed reading into ethnography, changes 'description' to critically regard it as 'inscription' (Denzin, 1997, 5).

'Language and speech do not mirror experience: they create experience in the process of creation, constantly transforming and deferring that which is being described' (1997, 5). This supports the theoretical probing done in chapter 3, starting with Donna Haraway's discussion on *reflection* as an unsuitable analogy for knowledge and interaction, and moving into Karen Barad's affecting *intra-action*, as a conceptual diffractive methodology. Language is not passive, as Denzin outlines, rather it is constructing and reconstructing as a performance in reality; it affects and intra-acts in situations. He refers to ethnographers as dealing with a performing text (Denzin, 1997, 5). In this light, this reading of ethnography provides pointers to unfolding, affecting ways of knowing that are neither objective nor separate. Here it is a knowing, looking, and recording as affecting and intervening, where researcher is within and part of that which is being researched in experience.

Ethnography in this context is an important methodology to observe and establish connections in-between things. Denzin discusses an ethno-poetics where *'texts erase the dividing line between observer and observed'* (1997, 225). Such practices are, in his description, a form of 'messy texts' that have many sites, are *'intertextual, always open-ended and resistant to theoretical holism'* (225). This openness is productive to examine *between* spaces. The purpose of a discursive practice, as discussed in chapter 2, is as a wander between – as a reciprocal questioning within, beside, in a more proximal shared space of inquiry. To make an enquiry as a designerly ethnographic practice, is to pay close attention to the constitute relationships between me, place, things and environment. This space is a performative unfolding processual and dynamic space, therefore I examine

developments in ethnography that further encompass criticality and performativity.

Critical performative ethnography

Critical performative ethnography takes cues from performance studies with the idea that experience begins with performance (Madison, 2005, 168).

This shifts the attention from the material conditions of all things being considered, including texts, to their affect and performative elements, as part of experience. In practice this translates as moving from enquiring into people, things and place as entity to an emphasis on the happenings and goings-on between them, within an event-space. In this sense, it is always the betwixt and between, the tensions and agential happenings connecting material things in the making.

In relation to the theoretical positions of Karen Barad's 'agential realism' and 'material-discursive framings discussed in the last chapter, critical performative ethnography is a fitting methodology, because of its focus within inter-animating spaces. Soyini Madison cites Dwight Conquergood's contribution to how the dialogic keeps the inter-animating tension between self and other (Madison, 2005, 11). The 'dialogical' is a gazing out and 'listening' or 'receiving in' practice (186). There is a reciprocity at play, which enlivens conversation as a giving and taking transmission – in correspondence with. What is relevant here is an 'ethical imperative.... to resist the arrogant perception that perpetuates monological encounter' (Madison, 186). This requires a focus on interstitial space. Knowing and seeing has to take account of more than the sole perspective on who does the seeing and what is seen, in the practice.

Critical performative ethnography involves an ecology of seeing, that takes account of more than me. For this research practice, adhering to the performative in the present and to this 'becoming' state, allows me to focus on affect, between different bodies, and an 'embodied interplay and engagement between things' (Madison, 2005, 10).

Participatory design

Participatory design is not a set discipline but rather a collective of design and research positions that critically think about where, who and what participates in systems and ecologies of making in the world. In reviewing its trajectorial movement from its inception over 40 years ago, participatory design has always emphasised a democratic and relational criticality. Participatory design grows out of a Scandinavian approach in industrial production that engaged workers directly in the development of new systems for the workplace (Gregory, 2003). Its theme in development being *'those affected by design should have a say in the design process'* (Björgvinsson, Ehn and Hillgren, 2010, 103). This is an important point I bring up later in relation to language, in this chapter. At the outset of participatory design in the 1970s, this translated as focus on the effect and contribution of workers in an industrial setting as part of the output being produced. This initial consideration of participatory design grew to include developments for product and interaction design, in the area of user-centred design (Sanders, 2006). Interaction design centres human as forefronted protagonist to be designed for, also called 'user-experience design' or UX design with regards to digital technological service and experience design.

Björgvinsson, Ehn and Hillgren's developments in participatory design, take up the discussion on 'thing' with relation to design, from Latour through Heidegger. Latour discusses socio-material assemblages, where things are drawn together as gathering and as political (2005). This has its providence in Heidegger, which also provides a basis in ontological design thinking, that I have discussed in chapter 1. *'A fundamental challenge for designers and the design community is to move from designing 'things' (objects) to design things (socio-material assemblies)'* (Björgvinsson, Ehn and Hillgren, 2012b, 102). What is figured is the idea that things are a gathering of materiality and immateriality, made up of an interconnected assembly of matter, environment, human cultural and technological perspectives and environment.

Their research is not figuring the more-than-human world yet as co-partner or protagonist in relation to what they say in 'those affected by design should have a say in the design process', still only in reference to human. But this juncture, considering socio-material perspectives, leaves the door open to consider that socio-material as primed now to consider the more-than-human partner a consideration.

Relevant, for this research, is the take up of participatory design into a feminist, new materialist framing. This is where human acknowledges the more-than-human as co-partner in this assembly as participants. This challenges a dominant human-centred approach to design, in now setting the scene for an inclusive perspective that considers things as lively parts in an event-space.²⁰ Design, in this framing, happens within an ecology of practices within socio-material assembly: *'Things are not carved out of human relations, but rather of socio-material, collectives of human and non-humans'* (Björgvinsson, Ehn and Hillgren, 2012b, 138).

Michelle Bastian extends participatory research beyond human-only in her paper, *'In conversation with...co-designing with more-than-human communities'* (Bastian 2016). Her work challenges the human-centred nature of participatory design, advocating for animal, plant and environment as active participants in co-design processes. Yoko Akama et al., continue feminist and wider cosmological systems thinking in *'expanding participation to design with more-than-human concerns.... in the shadow of existential crises'*, (Akama, Stuedahl and van Zyl, 2015). They advocate for the 'ethical, political and onto-epistemological concerns, regarding how world and futures are shaped, when more-than-human entities participate in our becoming' (Akama, Light and Kamihara, 2020). These perspectives question the constituent parts, in a socio-material frame, of all participants, human and more-than-human, rethinking relationships that are not traditionally served by design.

²⁰ See glossary for explanation of this word – event-space.

Maria Puig de la Bellacasa points out that *'generating care means counting in participants and issues who have not managed or are not likely to succeed in articulating their concerns'* (2011, 94). This perspective within the participatory design community bring into better view a worlding as gathering – of which we are partners, incorporated within. Jussi Parikka's work on ecological practices is useful, in relation to participatory design, *'it is a paying attention of involvements in a system in order to establish relations'* (44). The emphasis shifts from thing as object; 'thing' as outside; inanimate – to human observing from within, part of a situation, contingent.

This is exemplified in the transdisciplinary projects, outlined in chapter 2, positioning human as observing and knowing from within a worlding system. In MLF's project entitled – *'In the eyes of an animal; a frog; a mosquito* – human is acknowledged as another animal, a human animal, partner within the system.

In relation to visual communication design, as transdisciplinary practice, a critical participatory design allows us to open out the question who and what participates in systems of meaning-making. What is included and excluded in making stories and knowledge. Language and therefore visible language cannot be a description from the outside, rather what is needed is language as action from within. Participatory design informs my understanding that visual communication design can be an active visible meaning making language between human and more-than-human.

Visual communication design.

In chapter 2, I focused on visual communication design's development; legacy; here I will discuss it as a visible language, with design principles, as a grammar in visuality.

Mermoz advocates for a graphic design that broadens its reach, encompassing all forms of communication across media and contexts (Mermoz, 2006, 79). *'As ideas and media practices flow between fields,*

crossing disciplinary boundaries, more than ever we need to call upon new and increasingly diverse forms of knowledge. This in turn, requires that we broaden our knowledge base and develop new forms of collaboration' (Mermoz, 2006, 79). As I am petitioning for the graphic-ness of language to be part of an active knowing, entering into a discursive partnership with other fields and ways of knowing. The next section here, is questioning how to take the graphicness of language into an active performative field, as a practice of correspondence for relational knowing and being in the world.

From chapter 2's examination of the legacy and movements of visual communication practice, I am shifting visual communication design from a practice predominantly acting as a language of form, to questioning its performative role as a language *in formation*. This shifts attention from the material conditions of things, to the affecting and performative happening as part of experience. Lupton pertinently refers to the visual communication designer as a 'language worker', intimating their role as actively, producing and working with language (Lupton & Abbot Miller, 1996).

In a modernist framing, design principles are mostly thought about as the building blocks in a consolidating of design, they come together to make a concept, a service, a message, a place, a thing; to tell grand narratives. This is a language of form that emphasises a thinking about things as entity orientated. The Bauhaus, discussed in chapter 2, break down design principles into a 'vocabulary of design elements (dot, line, shape, texture, colour) organised by a grammar of contrasts (instability/balance, asymmetry/symmetry) (Drucker and McVarish, 2009). Design principles, as referred to here, are normally abstract formal parts of a visible unifying language (Dondis 1973; Kepes 1969; Lupton and Cole-Philips 2008; Davis and Hunt 2017). Visual communication design principles can be an open-ended thinking-with method, as instrument for the production and communication of knowledge (Mermoz, 2006, 77). They can have constituting possibilities, as well as consolidating ones.

The design principles, these perceptual qualities as visualities can become a language for better listening-in to a wider ecology of participation within this unfolding world. Design principles work as a particular type of text; its lines, dot, plane, pattern, texture, layers, can allow an observation of things on the way to becoming. It is in formation, as opposed to focusing on things as made, formed done. They are the quality of seeing before things are formed.

Language as relational

This next discussion deals with the ontological nature of language, discussing how and why it is a constituted partner in knowing and meaning-making in the world. Arturo Escobar importantly notes that in being and living in a relational, inter-dependent world: *'language cannot be merely translative or representational of reality 'out there' – but is constitutive of such reality'* (Escobar, 2017, 111). Here it is important to reiterate that I examine visual communication design *'from its broadest sense'* (Swanson, 1994, 63) discussed chapter 3 in 'why semiotics', its contribution to meaning making. This makes it a visible language, where the perceptual part of language is constituted with a linguistic understanding. I am enquiring into the active function of language as doing and performative in the world. Relevant to visual language, hence, visual communication design these are the visible marks – lines, texture, pattern, colour as evidences of inquiry and a connecting visibility.²¹ In this frame, the words, texts, marks, drawings open to become active and evidential expressions in experience.

It is useful to loop back to my discussion on ontology and ontological design, discussed in chapter 1. Heidegger discusses the etymology of the word 'thing', meaning gathering – to deliberate on a matter. In old German

²¹ Orit Halpern, discussed in chapter 2, traces the etymology of 'visuality' as 'evidence' in Latin. Visualisation, visuality and visibilities are multiples deriving out of vision (Halpern, 2014, 24). In this research this relationality between seeing and evidencing is particularly useful.

'Ting' is gathering, meeting, assembly.²² This is pertinent here because the origin of the word is ecological, part of a system, where now the meaning of 'thing' is positioned to mean object, a 'thing'. Heidegger in 'Being and Time' (1965), challenges a new thinking about 'thing' reappropriating an older understanding for what it does, its performing function, its 'thingness' or 'thinging', rather than its object orientation. Andrew Morrison makes a reference to Wittgenstein's expressing language as verb, positioning language more at the place of experience – active dialogic with real people. *'The responsive, embodied and situated aspects of our being in the world are in flux – and it's in this state of the transitional that places new pressures on us to find, as well as be open to finding, ways to 'language relationally'* (Morrison 2011, p32). As an ode to 'thing' as 'thinging' in Heidegger's work, I think through language as an active doing in the world. Language as an activity is a *language-ing*, a verbing activity. I am using language as a material-semiotic thing, connected into the world rather than a representational object thing: it is therefore appropriate of doing with language as 'language-ing'.

Many non-Western indigenous languages view things as alive and in relation, not as inert objects, which calls out the de-animating dominant function of English language, with its propensity for nouns. This is referenced in 'Braiding Sweetgrass', where Robin Wall Kimmerer looks for a *'grammar of animacy'* (2020, 57) and wonders about the demise of animacy lost through the loss of many indigenous languages: *'English is a noun based language, somehow appropriated to a culture so obsessed with things. Only 30% of English words are verbs, but in Potawatomi (a native American language) that proportion is 70%'* (Kimmerer, 2013, 53). She illustrates this animacy, in the following passage:

²² In researching the movements of 'thing' etymologically, the Oxford English Dictionary corroborates this – Old High German thing, ding, dinc , is referenced as a gathering, a meeting place of court, court-day, trial, case, assembly, discussion, meeting, council, circumstance, position, reason, cause.
<https://www.oed.com/view/Entry/200786?rskey=43UnQv&result=1#eid> accessed 11th Feb 2022.

‘when a bay is a noun, it is defined by human, trapped between its shores and contained by the word. But the ver wiikwegamaa – to be a bay – releases the water from bondage and lets it live. “to be a bay” holds the wonder that, for this moment, the living water has decided to shelter itself between these shores, conversing with cedar’ (Kimmerer, 2020, 20).

Indigenous language weaves experience and activity in the world, into language as ontologically entangled, contributing to my understanding of the active nature of world in meaning making; partnered and interdependent in a more-than-human worlding. Kimmerer illustrates the ontological nature of the more-than-human world as active doing, the bay performs. In Gaeilge (Irish language) Manchán Magan goes back to the annals where incantations were transcribed, summoning up Amergin’s incantation as a *‘declaration of the unity of all things as unity of world and us, in declaration of us with the things of the world’* (Magan, 2020, 11).

*Am gaeth I m-muir I am wind on sea
Am tond tretham I am ocean wave
Am fuaim mara I am roar of sea.*

This voice, and giving voice to sensory connections in the environment will be further explored in chapter 5 and 6, entangling knowing and being as part of place.

Hybrid transdisciplinary considerations

I have centred the discussion, so far, in this chapter on what disciplines and perspectives offer visual communication design affiliations for becoming a relational ontological design facing practice. Disciplines are mutable, they are not boxed-off ways of knowing. I have troubled boundaried disciplines – anthropology, archaeology, ethnography and visual communication design to build a hybrid set of methods that splice, get cut and are partially rejoin. The next section of this chapter considers the relevant methods connected

to these disciplines that I can operationalise to make a hybrid transdisciplinary methodology.

Critical performative ethnography is relevant in relation to performativity through walking as a research method that I further explore next.

Archaeology and anthropology inform excavating as a close to earth relational experience, where instead of actual digging, drawings are made to form connections and correspondence between. Other methods coming out of these disciplines include, mapping and cataloguing, using narrative, sequence and story-boarding. Visual communication design joins with other ways of knowing and making, assuming a closer incorporated position; a noticing from within through considering transdisciplinary alliances to join together different configurations that question ways of knowing and being in the world.

Method

Introduction

This next part of the chapter is a discussion on methods, that are informed from the disciplines examined. I first consider performativity and movement in walking as a research method and then move to examine methods of making visible and evidencing. Walking operationalises performativity, that in turn, gives rise to other durational methods. This links conceptually with ideas of discursive as to wander between; a reciprocal correspondence – between feet and ground; between thinking and movement, discussed in chapter 2. The second theme concerns methods to capture evidence when being in a place. My understanding and developing these making-visible methods are informed at the meet ups of these disciplines, which are put into practice in chapter 5, Archaeologies of Encounter.

Walking as a research practice

Performativity, processuality and encounter in the world are important ontological concerns relevant in this research. This next section considers walking as research practice that operationalises processuality and performativity in ways of seeing, being and knowing. To walk is a basic relational way of knowing and being in the world therefore, in questioning the graphicness of language in its performative field – walking is an appropriate method. Visual communication design, as stated, can have a dominant representational role in making information, concepts, knowledge; as a type of capture, as static. Here I examine walking as a research method to offer an alternate epistemology for performative storytelling, information, knowledge – as an unfolding, experiential and processual encounter, that has relational and affecting consequences to knowing, seeing and being.

Walking is a politics of slowness, hesitation and resistance (Springgay and Truman, 2019, 1). This is a method of paying attention to the self, in order to listen in to other rhythms. It is a listening in where affect is not specific to human or other living organisms (2019, 8). Stephanie Springgay and Sarah Truman's walking research examines walking as a partner in speculative and generative thinking (2019, 130). They draw on the work of Deleuze and Guattari, noting '*rhythm is not metric but formed through a repetition of difference – rhythm is a differential patterning that emerges through the relations between things*' (2019, 75). This ties with my investigation, in chapter 3, of Deleuze and Guattari's theme of rhizomatic movement between ways of knowing. These movements, in practice, as a method, I consider as not a type of consensus, a moving in step with – rather it is a participation and attention to differences. In '*Stone Walks, Inhuman animacies and queer archives of feeling*', Springgay and Truman's *Stone Walks* impart that walking is a productive propositional practice. They call this a 'practice of invention' because walking is a movement of thought (2016, 851).

Tim Ingold describes walking along with another person as nonconfrontational, convivial – you are seeing the same view, looking out at the world with another (Ingold, 2011). Taking this cue as going along *with* the world as it unfolds, there is a performative commonality and variance in doing this. ‘With’ demands a different type of attention, acknowledging a co-composing; unfolding; performativity *with*. Walking as a moving, performative method therefore generates a reciprocal unfolding. Paying attention to my rhythmic durational movement, enacts paying attention to other synchronicities that are not mine. This method allows me to partake in a durational, many rhythm worlding, where observing and walking foregrounds a broader range of sensory perceptions. Through incorporating various ways of seeing and recording, evidence is derived from different perspectives, materials and modalities. This is a form of ‘dialogical aesthetic’, an expression coined by Grant Kester to refer to an openness of listening and a willingness to accept a position of having of dependence and intersubjective vulnerability (Kester, 2004, 112).

Walking feels like a fundamental processual thing I as a human do to interface in the world. My feet meeting the ground, step by step, connecting me, things, place in space. Walking is a conscious and deliberate attending to my movements and rhythms – as a primary encounter between me and the world. This, by its nature, is ontological, as world is a dependent partner in walking. I have noted in a field notebook, in walking that ‘it feels indulgent and time wasting, like there are vastly, more important things to do’. It takes practice, a type of training, to pay close attention to my own rhythm, with the aim to make out ‘*differential patternings*’ (Springgay and Truman 2019, 75). In the act of walking, the present has to be deployed; it is a practice in present-ing, an arriving, both temporally and spatially. Walking puts time and space back together as dependent things, in practicing it. In paying attention to my rhythms, I notice other movements unfold, activating me among processual things.

As an initial training in walking and paying attention, Figure 4.01 shows a walk made in Spain, taking cues from Springgay and Truman's 'Stone walks', where I consciously go along with stones, rocks. This walking is informed, also, by Robin Kimmerer's indigenous perspectives of language, discussed earlier, positioning stones, rocks and place as active parts in sense making as performative things within a 'grammar of animacy' (Kimmerer, 2013). I am paying attention to my walking; my rhythm, paying attention to other rhythms. I am interested to know, in doing this, does this allow me insight into a processual worlding. This processual view places me in the world – within a never ending phenomenon of becoming as opposed to being (Madison, 2005, 178-181).



Figure 4.01. Design research illustrating a 'stone walk', in Spain, 2018. Inspired by Springgay and Truman (2016) *Stone Walks: inhuman Animacies and Queer Archives of Feeling*. Designly ways of knowing, for me, are iterative, embodied and visual.

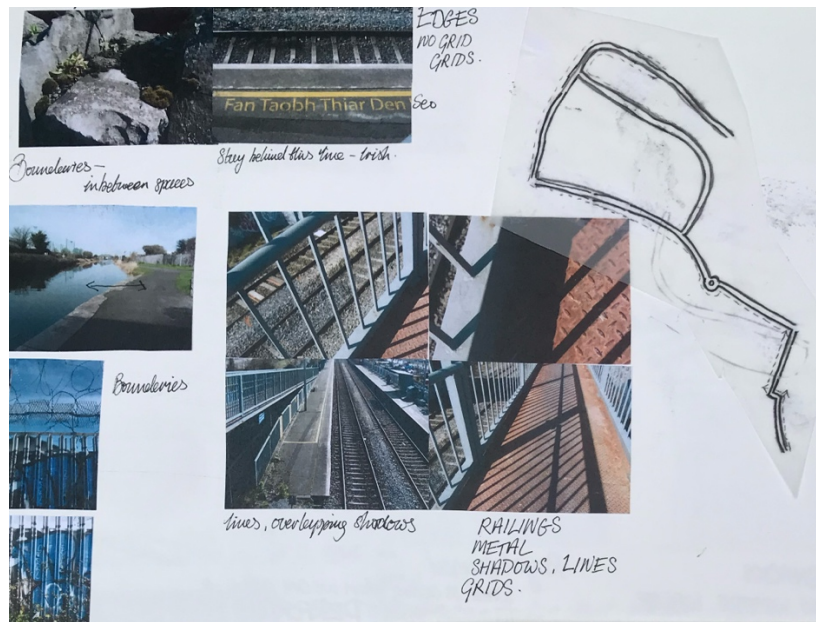


Figure 4.02. Canal bank walk, design research. Walking, thinking, photographing, writing and drawing practices as an ecology of practice, Dublin 2018



Figure 4.03. Canal bank walk, design research. Walking, thinking, writing and drawing practices. Going along, evidencing. Dublin 2018

A way of walking, is itself, a way of thinking and feeling (Ingold and Vergunst 2008). Walking is a chance to move with thoughts. This is a material and immaterial interacting together, foot on ground, reaching out to touch things, feel texture, entangled with sensing, memories and story. This productive processualism in walking as a research method is a 'verbing' of me, a being active, that begets other movements – stopping, sitting, drawing, looking around, reading, observing, writing in a place. How does walking affect other movements? If I sit and make a drawing, noting words, colours, is my time spent noticing giving insight into variance in temporality? Figure 4.03, illustrates my time spent with a canal, evidencing colour, words, direction, the flowing water. Walking is a hyphenated practice entangling walking-writing-drawing; or stopping-seeing-walking; extending into other methods. I am mixing words, colour, lines and ideas. Springgay and Truman call it a 'technique of relation' (2019,131). Words, colour, steps, ideas flow between one another, affecting boundaries between material and immateriality. Lines are drawn together; like embodied sentences, a making that joins me, place, concepts, thinking, things and place – in a disorderly syntactical practice.

These types of performative sentences function as a linking in space, the near and far, the here and there, not from one full-stop to another. Walking draws lines between things that can perform conceptual connecting lines, as discussed in the last chapter in Deleuze and Guattari's work on diagram. Walking draws things together, making as a constituting between, in space that is ontological in nature. This directly speaks to Karen Barad's mattering that takes account of the entangled materialisations of which we are a part (2007, 384).

Autoethnography

Between walking and capturing; as moving and evidencing – autoethnography is a method that connects lived experience as a form of performance text. *'Auto-ethnography is always a performance. It is an embodied text that enacts the life it writes about'* (Denzin, 1997, 227). In discussing ethnography, at the start of the chapter, it's as if Denzin's 'description' is objective – from a distance, while the 'inscription' values subjective storytelling, as a reflexive narrative. In the texts that follow, in walking – they are partial notes, annotations, diagrams, photography and writing, that evidence my *lived experience* from an autoethnographic positioning. This points towards text as more than alpha-numeric code, widening it to be visible texts. I am addressing a designerly (Cross, 1982) text; a designerly way of knowing. I use this method as a close-noticing that opens spaces for new forms of knowing, from my understanding – synthesising, compositing, combining, blending, iterating and reiterating.

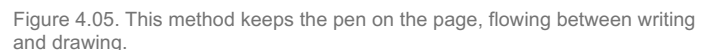
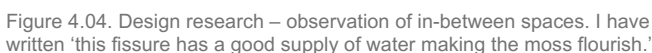
Gathering things together, spatial proximities.

Gathering words, writings, sketches, rubbings, traces and photography together in compositional space – on a page or in a notebook visually – is an important processual method of a visual communication designer. It is a method to see variance and proximal commonalities. This is a making visible method used to think, see and make with, as a way to constitute things together or apart, in order to see new orderings and narratives. I discuss this method, focusing on differing compositional spaces – a field-notebook; the design research notebook and a studio wall space.

The field notebook space

This is a small notebook that goes along walking with me, to consider the graphicness of language in walking. As a practice in walking; going along with the world – this small notebook, evidences encounter as sketches, writing and words. A line can start out as a drawing and morph into continuous written text, Figure 4.05. This is a conversation between place,

An array of different paper qualities and mark-making tools are needed with this field notebook, Figure 4.06. I have inserted small sheets of tracing and block water colour paper into the notebook, to walk with, by way of matching the approach to evidencing with what I pay attention to. These methods are partially archaeological, part visual communication design – drawing with observation, correspondence. To make a rubbing differs to tracing, or writing and drawing. I have a collection of different mark-making tools – graphite, ink, pencil and brush.



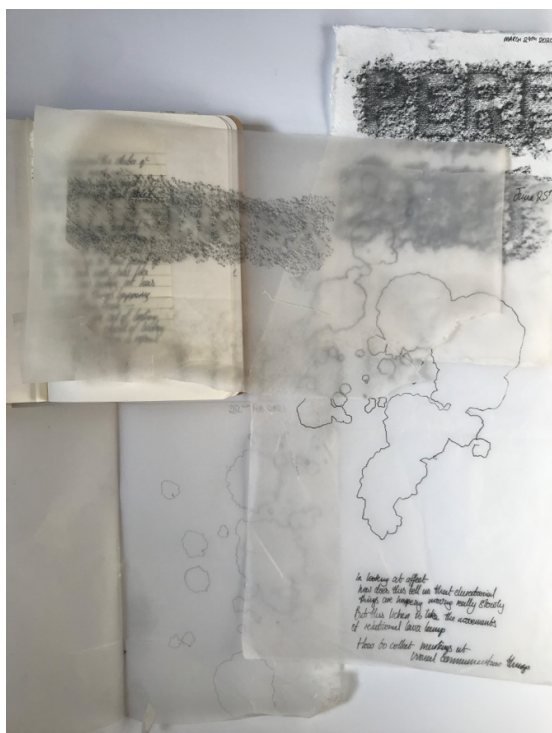


Figure 4.06. Design research. Drawing, writing, rubbings – notes and rubbings made on thick water colour paper.

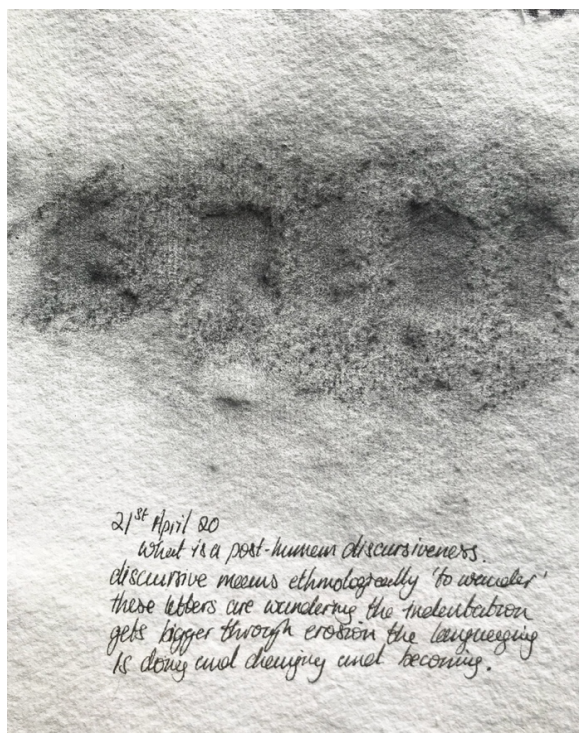
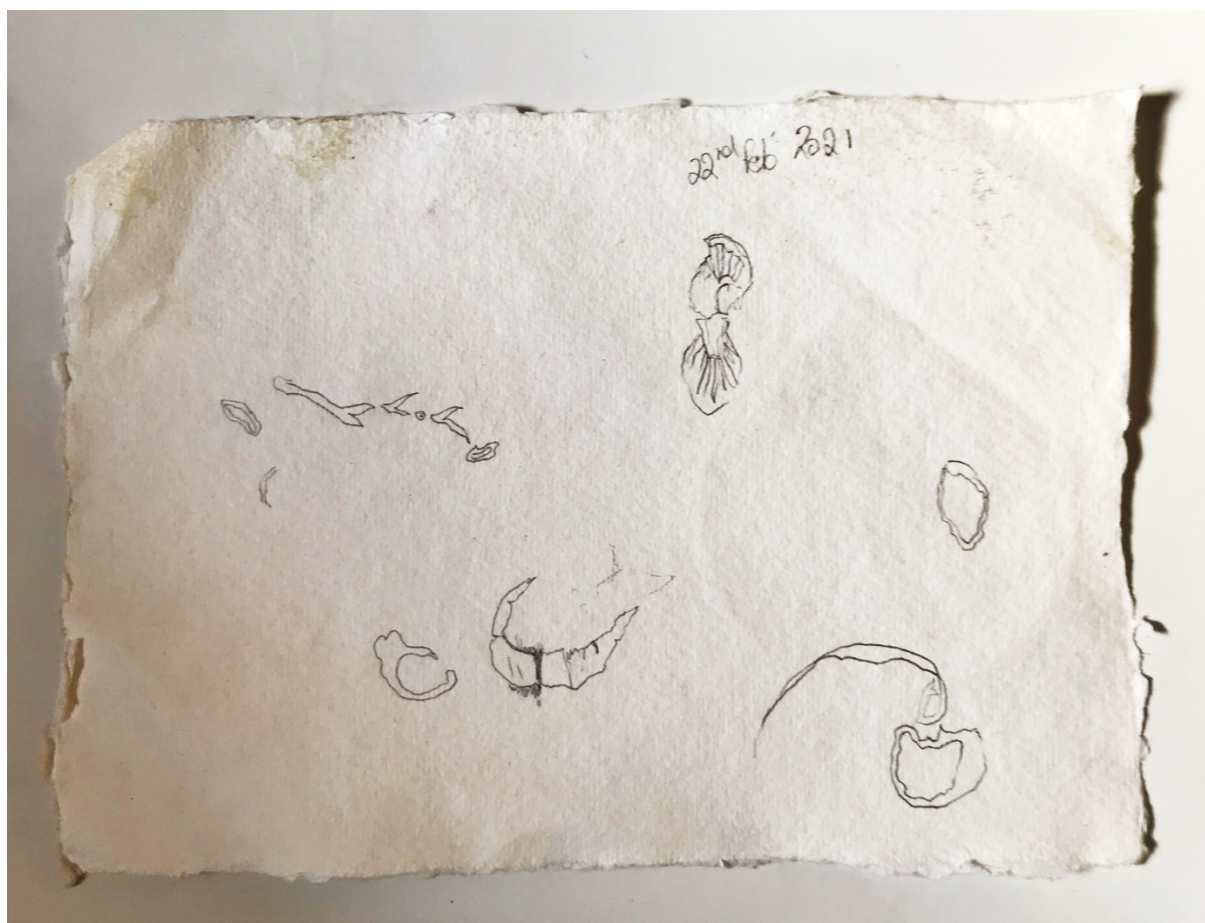


Figure 4.07. Design research. Notes and rubbings made on thick water colour paper.



4.08. Design research, knowing as paying close attention – sketches made in the field notebook.

The design research notebook

These are a series of notebooks that allow me to interrogate concepts, theory and visuality as relational things. I do this through compositionally putting ideas and concepts, in play as proximal orderings. Annotations are made between theoretical and visual thinking. In chapter 2, I referenced the type of listening-in that Donald Schön's the Reflective Practitioner called 'back-talk' – which considers the doing of designing as a listening in to the requirements of a situation. The design research notebook provides this space for this designerly conversation where evidences, texts, concepts and propositions are ideas made visible. Partial visual and conceptual work are cut with visual artistic and designer practices, with themes from research writings.

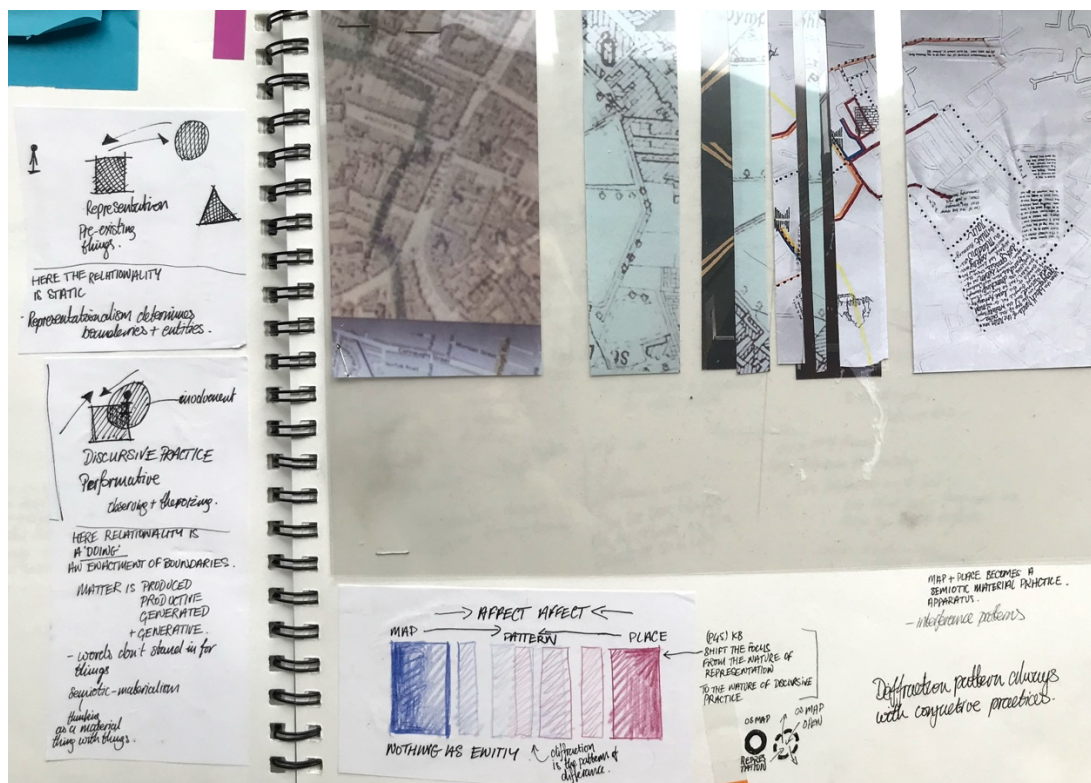


Figure 4.09. Design research. Illustrating designerly enquiry into theoretical perspectives of Karen Barad's – affecting 'intra-action'; 'material-discursive'; 'diffractive patterning'.

Figure 4.09, is a reference showing the proximity of visualities, texts and cuts, as an iterating – tinkering through text and visibility, considering cuts, disjoints and new joining's.

It demonstrates my processual thinking through the theoretical 'diffractive methodology' framing of Karen Barad, discussed in chapter 3. This is made to understand the practice implications of theory, the processual iterations as visibility, informs the further exploration of these ideas as practice in chapter 5. 'Intra-action' is an affective 'interaction' that produces disturbance patterns that is visually interrogated in Figure 4.09, where, I ask – what happens when things meet up, what does an affecting intra-action mean? Figure 4.10 and 4.11 shows further development and understanding using a design research notebook with drawing and visibility, used in forming ideas of this theory from Barad in chapter 3 and that underpins the further exploration of an 'affecting encounter, in chapter 5. The visibility in making diagrams, allows critical theoretical and practice based inquiry to inter-mingle, allowing an operationalising of what 'intra-action' means in this particular research practice, that I take into the next chapter. In this research I am taking theory into practice, testing out what are disturbance patterns; affect; intra-action – as encounter. These sketches and thinking allow me to form a position on how interaction becomes intra-action, for the next chapter.

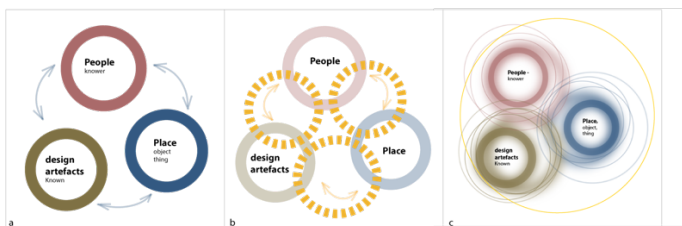


Figure 3.07. This is a reference figured in chapter 3, developed from the processual thinking in design research below.

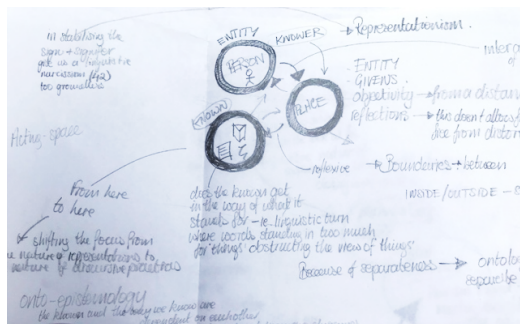


Figure 4.10. Design research – linking theoretical and conceptual thinking with how they work in practice.

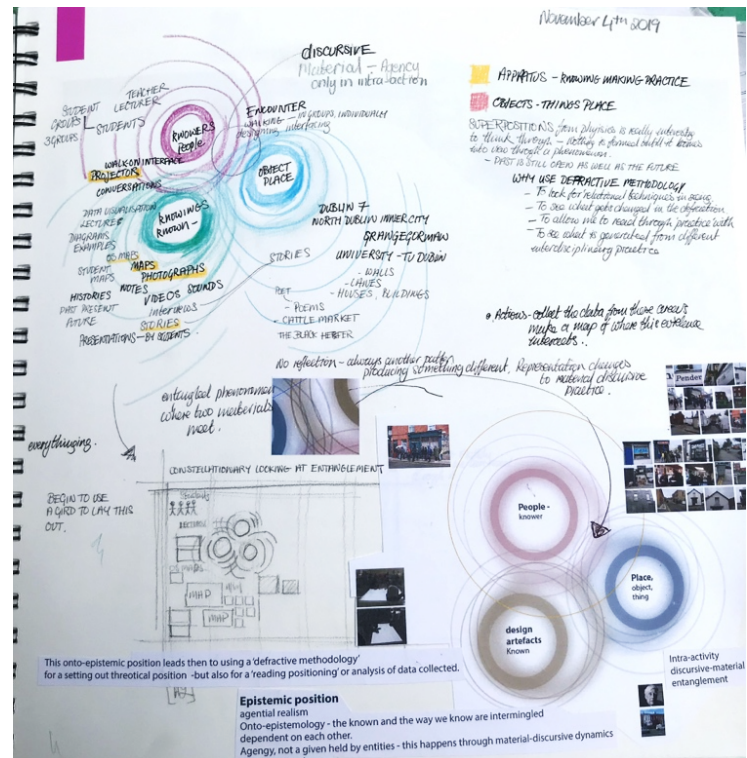


Figure 4.1. illustrating processual development of 'affecting intra-action', theoretical framing Karen Barad.

Mapping as method

Mapping, in this practice research, is a critically productive method to consider ideas of situation, location, dislocation and then counter location. I have looked at the artist Julie Mehretu's large scale paintings as unresolved spaces; making a sort of cartography of becoming. She plays with both perspective and flatness simultaneously, as constituted marks and visibility in large compositional spaces, Figure 4.12. I am interested in the mixing of marks that can be architectural, as an isometric drawing or aerial and flat colour perspectives. These visualities Mehretu puts into play seem to dismantle binary oppositions between signs and marks as opposing ways of knowing, where placing them together allows me insight into ways I can question, speculatively, what if ways of knowing transgress between differing marks and signs and into differing ways of being and knowing.

The map we normally see and use is usually a reduced scale version of an actual geography. Artist Ingrid Calamé has made intimate mappings at a 1:1 scale, which teams of people help draw, Figure 4.12 and 4.13. These start out in a place of actual transcribed lines and marks and translating to intimate maps you can walk on. Tim Robinson's Aran Island maps (1975) make connections between being present in a place, walking and mapping, which he did in making a series of maps of the Islands that feel especially intimate and close. Figure 4.14 is an image from one of his Aran Island maps reproduced at large scale to walk on. Both the work of Calamé and Robinson are relevant to my research in that presence in place is required as part of making a map, a type of knowing and evidencing location.

I want to reference too the work of Constant Nieuwenhuys's New Babylon series (1963-64). Looking from above, this is mapping put together as seeming to need multiple perspectives, looking closely, looking from far away, not quite seeing the whole thing. This is relevant to the discussion relating to Haraway, looking from somewhere or nowhere, and ideas of situated knowing.



Figure 4.12. Painting close-up, Julie Mehretu. No Title. <https://art21.org/gallery/julie-mehretu-artwork-survey-2000s/#2> accessed 02/01/18.



Figure 4.12. Artist Ingrid Calamé
<https://www.ingridcalame.net/new-gallery/9depq17gplm2ae9vnjid3suxozqgap>
 Accessed 17/03/19



Figure 4.13. Artist Ingrid Calamé
<https://www.ingridcalame.net/new-gallery/9depq17gplm2ae9vnjid3suxozqgap>
 Accessed 17/03/19.



Figure 4.15 Constant Nieuwenhuys's New Babylon series (1963-64). Partial cuts and collaged pieces as design research.

Julie Mehretu, Ingrid Calamé, Tim Robinson and Constant Nieuwenhuys's mappings inform my thinking about encounter, as an *intra-acting* in the world, allowing me question what is an affective mapping, as knowing and feeling as contingent. I examine abstracted ideas of knowing place through Ordnance Survey mappings of places I walk in Dublin. These are drawings, overlapping sketches, and are cuts, collaged and annotated, in Figure 4.17, 4.18, 4.19. I am exploring themes of time and narrative in *Incipient Cartographies*, focusing on speculative movements; developments as

counter-mapping between human and more-than-human knowing and being. These experiments question ideas of location and space using visualities, words, writings that can be cut together differently, between encounter and objective ideas of mapping.

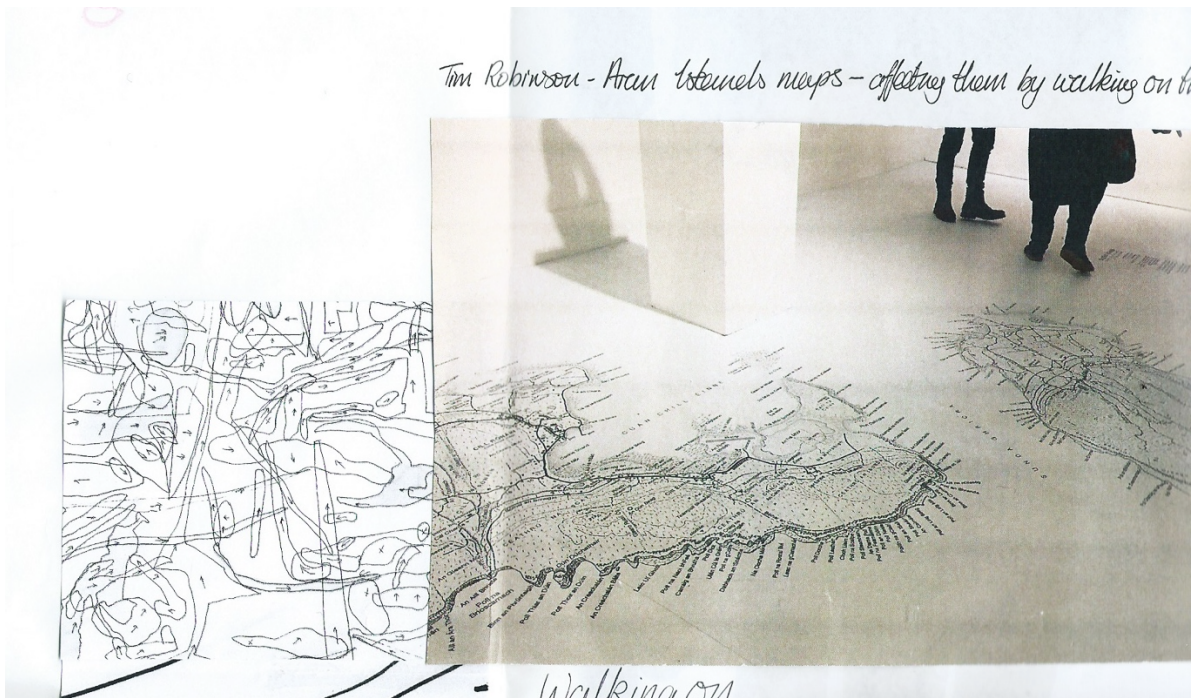


Figure 4.16. Design research examining mapping, taking the work of Julie Mehretu and Tim Robinson, collaged.

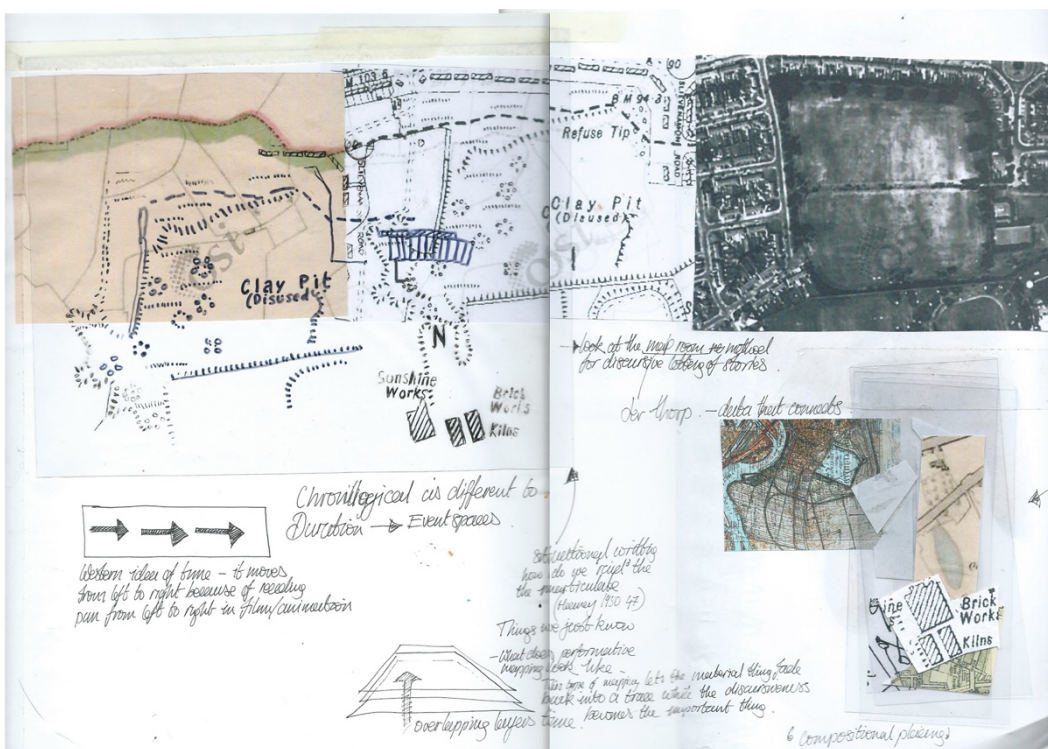


Figure 4.17. Design research, examining connections with Mapping location and composition with Ordinance survey.

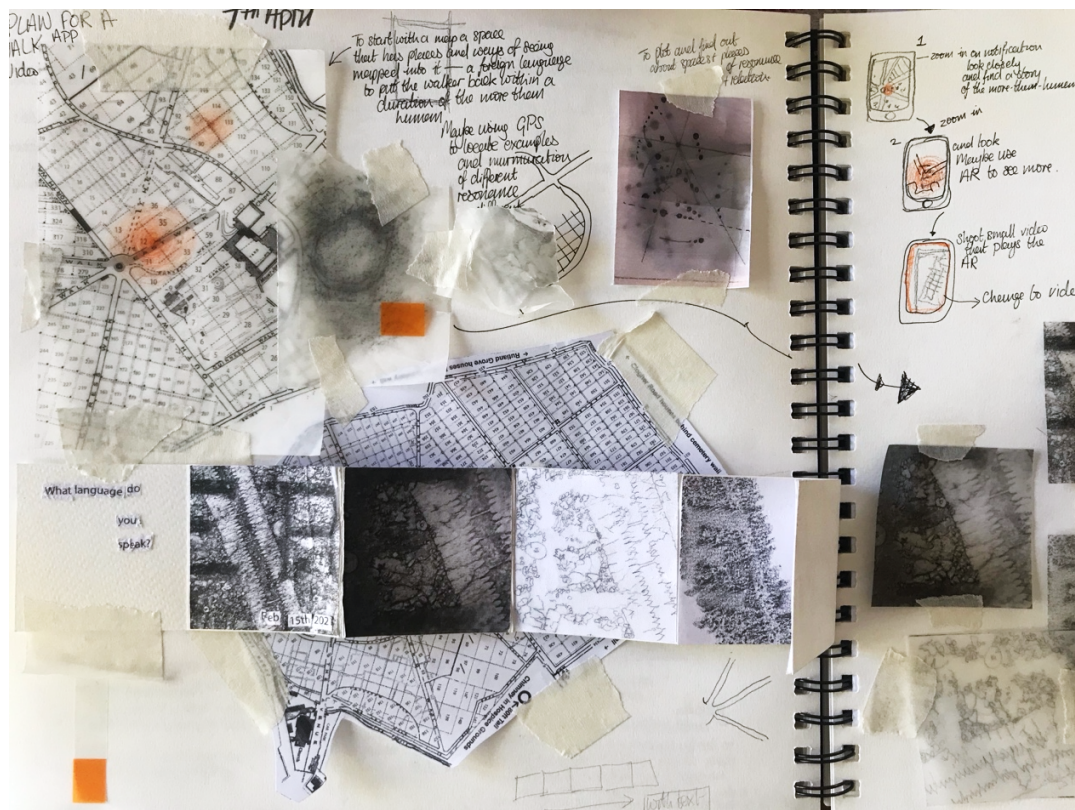


Figure 4.18. Design research – composition, location, mapping, writing and drawing.



Figure 4.19. Design research, overlapping, writing, mapping as composition.

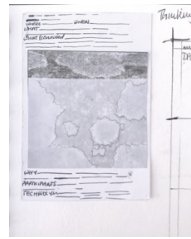
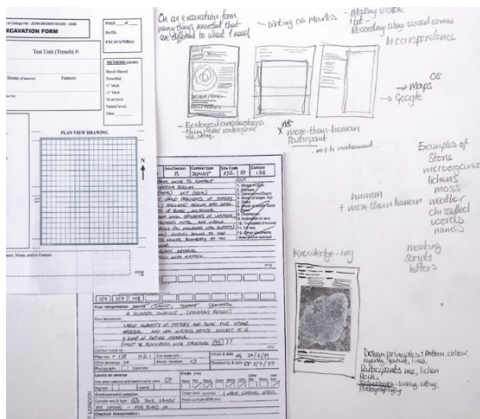
Cataloguing

In walking I am not collecting actual objects, artifacts that are human or nature, but traces, evidences of being in correspondence with a place. Cataloguing, is therefore, critically considering what it is to name, collect and hold traces of visualities. Naming is a holding position, before considering performative happenings between things.

Catalogue within anthropology, archaeology and ecology has a legacy dating back to Carl Linnaeus, the Swedish naturalist (Blei, 2017). His 1735 'Systema Naturae' devises a universal language as the taxonomy of nested hierarchies still used today, outlining species, genus, family, order, class, phylum, and kingdom. *'It is a mix in diagram, drawings, Latin names, an exercise in referencing and making connection, as objective scientific classification'* (Warne, 2007). This is a Western ontology, emphasising categorisation and classification of entities as discrete things.

Archaeologists record artifact provenience, where items are found, noting measurements, situation and names. This recording takes place through field notes, catalogue forms, bag-labels, sketch maps, photography and mapping. These methods emphasis field work, site survey, mapping, attending closely to a place, through documentation, recording and categorisation. Fieldwork requires presence, digging, and careful excavation.

Anna Tsing notes classification as a momentary hold: 'categories are names in motion that can be used as a commitment to tracing assemblages' (2015, p29). I am taking cues in Anna Tsing's position on 'naming' when she says 'I need names to substance my noticing, but I need them as names-in-motion.' (Tsing, 2015, 293).



Meet-Up		Brenda Duggan, Dead movements
When	Description	
Where		
What		
Design Principles	Interpretation	
Participants		
Technologies	Other comments/discussion	

Figure 4.20. Archaeological influences in developing meet up cards for ecological seeing; knowing.

Figure 4.21

Figure 4.22. Prototype idea for cataloguing; meet up card design.

Naming therefore is a holding position, to call out the things in an ecological situation is an important noticing, thereby, acknowledging the dependent ecologies that are other than me.

Figure 4.20, referenced from my design research notebook, examines examples of excavation cards, cataloguing systems and documentation strategies in archaeology – how numbering, indexing, mapping and locating are used. Here my concern is the performative: I am cataloguing as a method in naming, but as Tsing points out it is a ‘naming in motion’ activity. I take up the role between designer-archaeologist, questioning the correspondences I can document in walking, going along, observing. Figure 4.21 and 4.22 illustrates my design for a catalogue, the prototype that I use in chapter 5, which I came to call a ‘meet up card’.

This is a critical cataloguing assuming a closer positioning to the proximal things affecting it. It has a subjectivity that allows the evidencing of an ecology of things for the different walks I set out on. These labels, visualities, techniques, technologies (mine, the more-than-human) are preceptive qualities (design principles) *in formation*, taking part in the event-space, as an ecology. This opens active parts in being, seeing and knowing as constitutive partnerships,

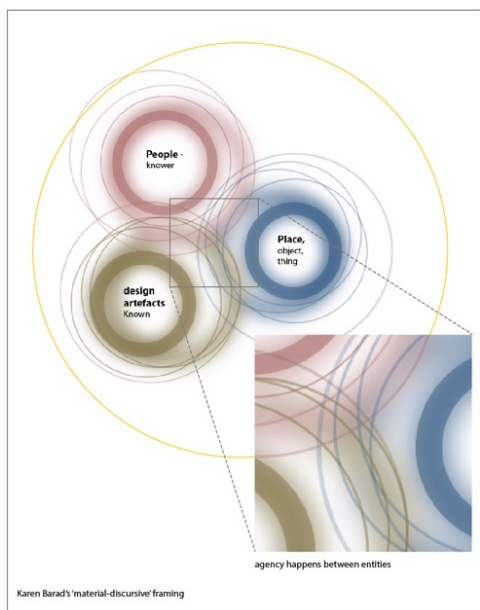


Figure 4.23. Close up of model of 'material-discursive' framing, Karen Barad. This outlines a focus in examining affective 'intra-action'.

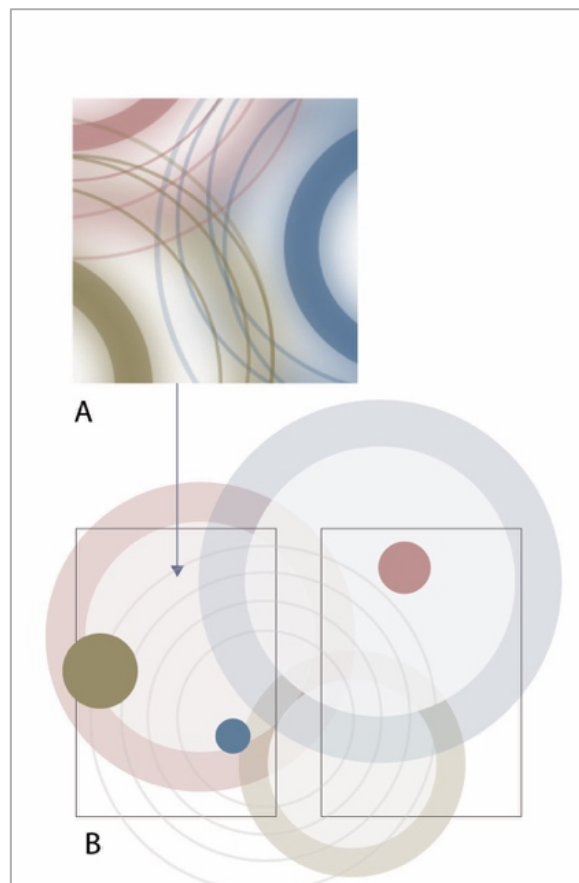


Figure 4.24. Model how I apply affecting inter-action to catalogue on meet up cards.

The use of this method functions to operationalise the philosophical positioning discussed in chapter 3, Karen Barad's 'material-discursive' framing, asking what happens when things intra-act. Figure 4.23 above takes Barad's theory where agency is not held by entity, but happens when things meet up. The second diagram, Figure 4.24 illustrates my thinking in using the meet up cards, outlining the named things as an ecology, with solid dots on the model referring to the named things on the meet up card. The larger expanding circles indicates this idea of affect between things that 'intra-act'. Words, things, visualities have inter-involved possibility. The main part of the catalogue card is taken up with the subject as a visible text. This can be a word, a pattern, a whole area, a specific thing. The series of cards, widening the ecological seeing and question the constitutive parts in seeing and knowing. The cards hold words, descriptions, labels, visualities, technologies, perceptive qualities, the participants in a particular event-space, marked as solid circles in Figure 4.25. These ecological things then can become entangled parts and cuts towards making new articulations. Figure 4.26 shows how these things are perceived as affecting intra-actions – with this meet up card method useful in naming, but naming in motion.



Figure 4.25. Modelling the practice of meet up cards.

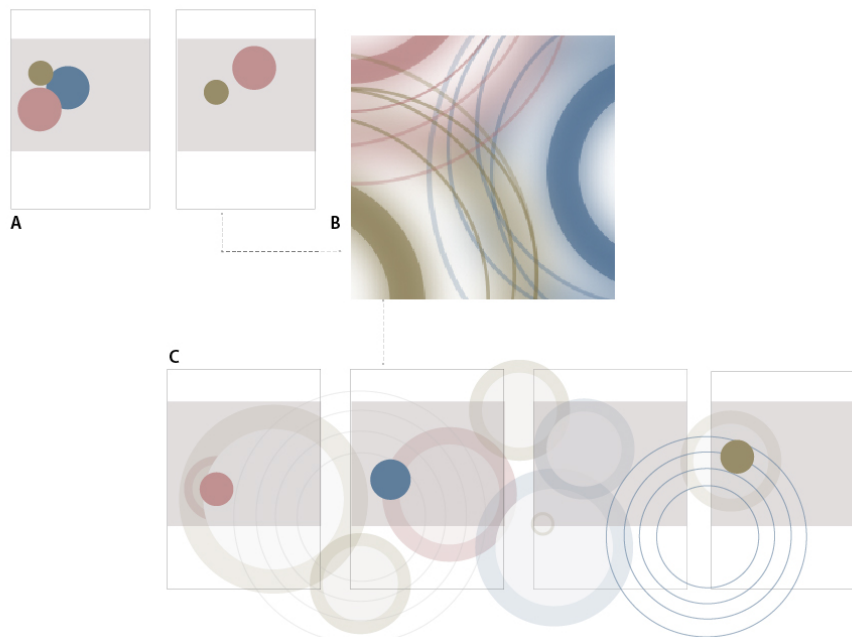


Figure 4.26. Modelling the practice of affecting intra-action and using meet up cards.

Anatomy of the Meet up cards

The meet up card is divided into three parts. The top part of the card denotes contextual and locational information – *when; where; what*, Figure 4.22. This gives a specificity of where I look from, tying in to a location a place, by recording denotational information – date, time, place and things involved. It attaches knowing to a particular situated context. The second part of the card is space for the *visual* text, the main part of the card. This could be a colour, a small detail, a pattern, a word, map, reference points. This space is an affective, sensory and visual text.

Lower down on the meet up card are spaces for *Design principles*; *Participants - human and more-than-human* and *Technologies*. Design principles is a space to note down the perceptive qualities that make up things: colour, lines, shading, textures, layer, patterns, as the building blocks of seeing, outlined earlier in the discussion on design principles in ‘visual communication design’ earlier in this chapter. *Participants* – who and what participates – is paying attention to what is doing as I do. This label is informed by my discussion on ‘participatory design’ – earlier in the chapter acknowledging there is more involved, than me, in any knowing and seeing.

Technologies marked on the meet up cards is directly linked to the discussion in chapter 3, in both the section discussing Donna Haraway and also Karen Barad position knowing as materially dependent. This acknowledges I am not an all seeing human, seeing from everywhere and nowhere. Their proposition about what and with whom we see and know needs to be named, is put into practice here. Placing *technologies* on the meet up card allows me account for the apparatus or technology of seeing-noticing-reading place. I am paying attention to what device, or instrument, or software I reach into the world to see and know with.

Sequencing and storying boarding

Sequence and narrative are important ordering and structuring methods in visual communication design. Narrative is a temporal structuring we humans use to tell ourselves stories of people, place and events. In professional visual communication design practice, narrative methods hold different knowledges in different forms – the book, an animation, digital, interactive story and film. Narrative methods can extend as sentences; continuous text, chapters into books. In film, animation and motion graphics, storyboarding allows keyframes to establish a narrative direction, picking out the main parts in a story. Storyboarding, in a professional practice guise, are still images captured in sequence, that come together to make a series of durational happenings. It is used in the planning stages of film and

animation to 'keyframe' elements of a story. As key parts of a story are developed, 'keyframing' and 'tweening' are concepts to develop story.

Narrative and sequence allow an ordering from page to page in the field notebook, as a moving along in a different durational chronology, in walking, step after step. In this research, sequence and narrative are also practiced as a form of storyboarding, which I reframe as making with differing temporalities, rhythms, chronologies.

Using a storyboarding method, I can question processual and sequencing ways to read unfolding inter-animating movements. Figure 4.27 and 4.28 illustrate initial development sketches iterating ideas through walking, processuality using narrative and sequence. This is informed by theoretical questioning in Deleuze and Guattari's rhizomatic moves additive and constitutive, an: 'and, and, and' (2004, 26).

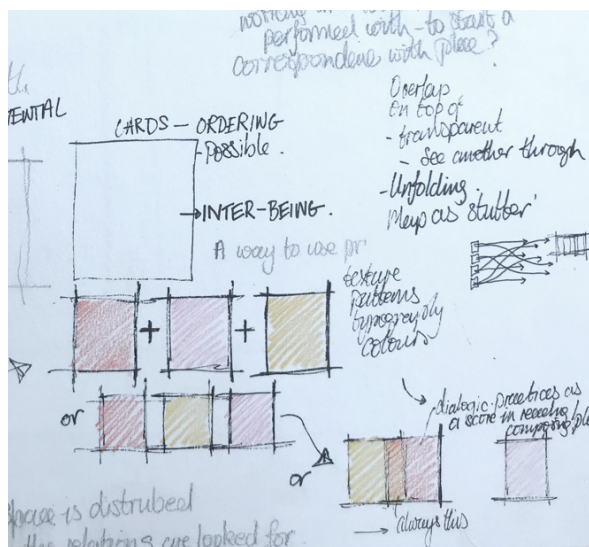


Figure 4.27. Design research examining sequence, narrative and affect as overlapping.

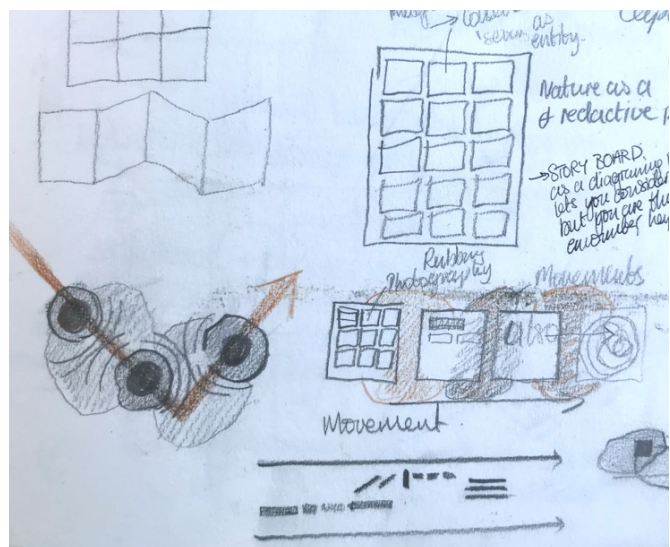


Figure 4.28. Design research, examining connection, relationality and continuums.

With this in mind, structuring and ordering tactics, from professional practice are critically positioned to question speculatively ways narrative and sequencing methods are used to think with time and duration. Storyboarding is productive because it allows thinking with materiality to find what happens in-between. Keyframe manifests as an entity, form, a holding

'position' of possibility, that allows an 'on the way', to becoming, changing, morphing, or tweening. I consider temporal and durational variances between my rhythms and others, allowing me to establish speculative entanglements, as intra-actions, in between. Figure 4.29 are initial iterative sketches in developing a method for storyboard.

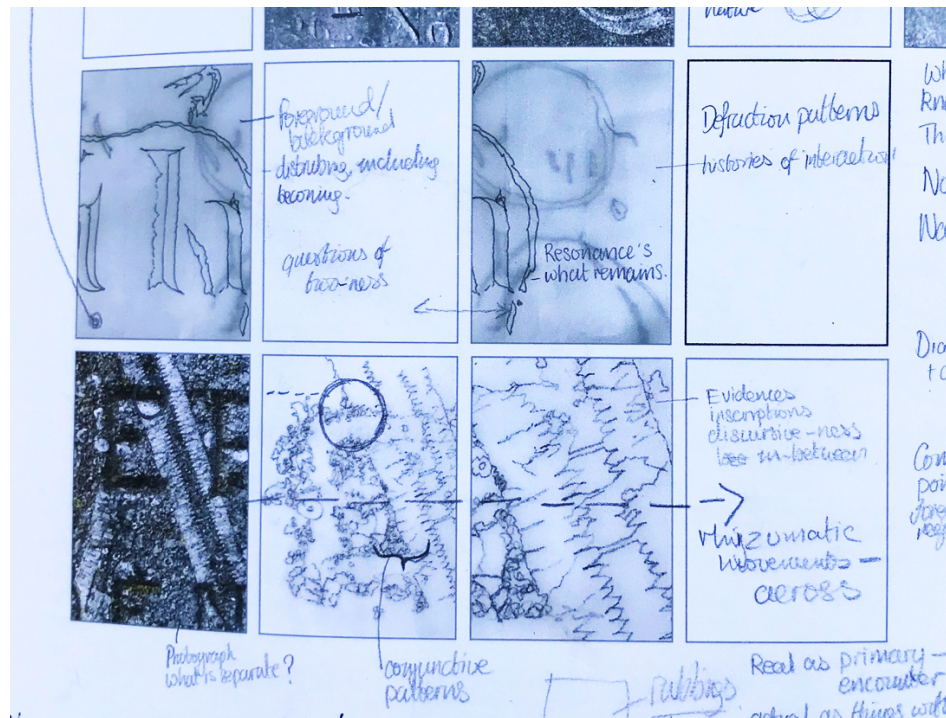


Figure 4.29. Design research. Examining temporality as sequencing using storyboarding technique.

Constituting disciplinary affiliations in making a hybrid set of methods

This chapter builds on the theoretical foundations of feminist new materialism and critical semiotics outlined in the previous chapter, with the aim in developing a hybrid methodology for visual communication design. By placing this discipline in conversation with anthropology, archaeology, and ethnography, interdisciplinary affinities offer productive alignments that contribute distinct affordances to a more relational ontologically facing practice, to be further explored in chapter 5.

Through anthropology, a framework of relationality is established as a temporal reach between pasts, presents, and futures. Archaeology offers tools to interrogate knowledge structures and material proximities –

contributing ideas of excavation as a form of correspondence. Ethnography has been critically examined for its potential as a performative way of paying attention. Together, these perspectives support a move toward methods as a tool-kit that grounds visual communication design as an in relational knowledge-making practice.

The methods extend to thinking and making as imagined and propositional linked always to a material locational situation. This links into the theoretical positions discussed in chapter 3 the *material-semiotic* (Haraway, 1988, 595), or worked further in Barad's positioning the *material-discursive* (2007, 132). The methods that start out as operational for actual encounter are extended for the speculative propositional making that visual communication can do. This is through methods of capture and making visible. The practices of making visible – seeing relationally and in proximity – has been aided by methods of field and design research notebook. Cataloguing, making meet up cards, an ecology of things, questions the constituting parts of seeing and knowing. Narrative is discussed as a technology of story and this is extended as method in this chapter through story boarding methods.

Together, these methods form a hybrid, relational, and ontologically attuned approach to visual communication design. This methodological framework now sets the stage for the next chapter, *Archaeologies of Encounter*, where these practices are brought into applied, material dialogue.

Chapter 5:

Archaeologies of Encounter

Introduction

This chapter focuses on practice and its aim is to explore alternative epistemologies that are performative, situated and subjective, rather than detached and objective. I seek to examine the place where the human and the world meet, interact, and co-constitute one another. In this research, I have put forward that the abstract, separated out, individual approach to the ways we make and order knowledge affects the stories we tell ourselves, thereby, contributing to how humans are and act in the world. This inquiry aims to reposition visual communication design within a more ontologically grounded transdisciplinary practice.

This research has aligned theoretical frameworks of new materialism to position knowing, being and communicating to be closer and dependent in the world. In chapter 3, I explored this through Donna Haraway's *situated knowledges* in which knowing is dependent on looking out from somewhere; an incorporated human with and within the world. I have looked to Karen Barad's *material-discursive* framing where materiality as actual is tethered to conceptual, imagined and propositional thinking, that affects, and to Jane Bennett's *vital matter*, where matter matters, affecting thought, perception, and existence. These frameworks challenge the modernist epistemology of detached, abstract and individual ways of making knowledge.

Archaeologies of encounter has two main parts to it –‘actual’ and ‘virtual’. The *actual* encounter is a focus on a series of experimental walking and designerly practices to interrogate the ways human is incorporated into worlding ways of knowing and being. This is about encounter as a correspondence ‘with’, examining what it means to be discursive in a place. The ‘try-out’ practices, focus on a walking-seeing-drawing, as an observational and ecological seeing, deploying the hybrid methodological tool-kit fashioned in chapter 4, to become designer-ethnographer-archaeologist.

The second part of this chapter is called 'incipient cartographies'. It deals with the propositional, critical and speculative role design can play in imagining possibility. This part of the chapter takes the material, actual correspondences with place to imagine mixes, cuts and new affiliations between human and more-than-human mark-making. If the first part of the chapter is concerned with place and actual material things, here the focus turns to the virtual as connected to the material and actual.

Chapter 5, starts with a prelude called 'Walking with my father', that involves the memories I have of a seemingly magical tradition called divining, where knowing is tied to sensing. This positions me to think about connections between place, body and thinking, as a slow walking and thus an attention to relationships between things, thinking and knowing.

The chapter then continues with actual and local engagements, encounters in the world, through a series of walks in a cemetery, called '*In conversation with place*'. Here, I make alliances between materiality and thinking, joining walking research methods with drawing, observing, close-noticing and writing. '*Encounter with more-than-human participants*' progresses a closer noticing, engaging more-than-human research participants to go along and think with. These are a focus on headstones because they hold both human and more-than-human tracings – human-chiselled inscriptions, long-gone sea-fossil markings and over-coding lichens. The aim here is a making and reflecting with these entangled human and more-than-human things to examine differences and similitude.

'*Cataloguing encounter; meet ups*' charts a naming and describing method, part archaeological categorising and part designerly making visible²³. I examine the proximal things that gather, as an ecology, in making up a thing. As outlined previously, this is both a capturing method and name-in-motion method.

²³ This puts into practice the meet up method outlined in chapter 4, 'Cataloguing'.

The second part of this chapter, titled 'Incipient Cartographies', threads in ideas of virtual ways of knowing as becoming and emerging. I do this to try out a practice in constituting actual and virtual. I am questioning a connection²⁴ between embodied materiality and evidence (actual) and thinking, imagining and sensing (virtual), to create new articulations and propositions, to open up uncharted, relational ways of knowing.

The term "incipient cartographies" emanates from *incipient*, meaning developing or emerging, and *cartography* as mapping, drawing to locate. Placing these words in relation, focuses on a critical type of mapping and questions ways of location as developing, unfolding, emergent. The work that follows involves cutting and splicing mark-making from differing semiotic regimes to create new affiliations between ways of knowing. Mapping, here, is locating as becoming; always on the way and allowing an opening up, for mutability.

This is a material-discursive practice to question the interanimating space between, conjugating actual and virtual as continuities of interdependent aspects of knowing. Incipient cartographies is about performative, becoming experimental practices that reach across into speculative space – mapping possible futures through try-outs and processual methods. This defers representationalism, to engage in processual thinking - slowness, durational rhythms, legibilities – as unfolding relationships in understanding. I am thinking with: making and practice that question ways that shift the ordering of the stories we tell ourselves.

What 'virtual' means

Virtual is in reference to ideas of variation and emergence that I make as a speculative practice in the Incipient cartographies part of this chapter. The virtual is *more than* actual – opening out to potential and new possibilities. Virtuality lies beyond the actual, waiting to be activated through time, movement, and becoming. The concept of virtual comes from a Deleuze

²⁴ The connection here is the conceptual 'diagram' discussed in Chapter 3, 'diagram as methodological'.

and Guattarian perspective, as that of a field of potential, a domain of becoming and multiplicity. *'One would look into the possibilities not only of mixture but also of translation and transformation into another regime or into statements belonging to other regimes'* (171).²⁵ Their discussion in *'postulates of linguistics'* (88-128), is questioning what is open and possible in language that is in *'immanent continuous variation'* (113). Elizabeth Grosz, expanding on Deleuze and Guattari, writes that *'both ideas and simulacra exist in a state of virtuality, before and in excess of their materialisations'* (Grosz, 2005, 105).

Connecting actual and virtual; a material-discursive practice

Finally, I conclude the chapter by drawing a connecting line between the actual and the virtual by creating a series of seven fold-out mappings that plot a diagram between actual and possible, semiotic and trans-semiotic. The words and visualities are taken from the discussions in both parts of the chapter, which I documented and charted along the way. The reason to do this is to make tangible the diagram between actual and imagined and to connect speculative semiotic happenings between regimes of knowing, human and more-than-human. Refer to the appendix to see the overview visualisation of this. This sets my research up for a closing discussion in chapter 6, to synthesise what a listening in practice does for visual communicators in a relational being and knowing in the world.

²⁵ This brings in the theoretical positioning of Deleuze and Guattari's critical semiotics discussed earlier in *'Diagram as methodological'* – *'constructs a real that is yet to come, a new type of reality'* (164).

Walking with my father

In an attempt to understand knowing and sensing as being more than rational and factual, individually situated in a brain, I began to think about my father's ability in divining for water, Figure 5.01. Divining is a practice of walking with a set of metal rods or a Y-shaped stick. The word divine, divining, in this sense, originates from Latin – '*divination-em > divinare – to make out by sagacity, intuition, or fortunate conjecture – in some other way than by actual information*'.²⁶ This practice is somehow a type of knowing without factual or scientific proof. I had a hunch that this knowing is deferred, somehow within a walking ritual and a practice between things.

I had remembered my father walking slowly, in precise steps along lines in our large back garden, with us children as amazed bystanders. He held a Y-shaped stick that at certain intervals moved slowly, tugging towards the ground as if having a magic magnetic pull, which would indicate an underground water course. In this research practice, questioning a wider-semiotic spectrum for meaning-making between human and environment, where world and the more-than-human are actants in this process, these divining walks became productive to think with. I set about interviewing and walking with my father, again, in the same childhood back garden, at my parents' house.

This divining practice comes to mind in reading Tim Ingold's discussion on kite flying as an analogy to explore the interconnectedness of mind, body and material (2013, 99). He uses this to show how the flyer, wind, line and kite are reciprocally intertwined, emphasising the relationality between human and environment: '*Why should people think with artifacts alone? Why not also with air, the ground, mountains and streams and other living beings?*' (2013, 98). This intimates a wider ecology of flow where the human is not sole actant but rather within a sensory flow between more things. This marries with Karen Barad's 'intra-acting' frame discussed in chapter 3.

²⁶ https://www.oed.com/dictionary/divination_n?tab=etymology#6313229

Ingold asks *'Does thought lie in the interactions between brains, bodies and objects in the world or the correspondences of material flows and sensory awareness wherein consciousness, to recall the words of Deleuze and Guattari, it is the 'thought of the matter-flow' and 'material the correlate of the consciousness' (2013, 98).*

My father and I walk outside into the same large back garden. He breaks off a Y-shaped twig from a hazel tree in the hedge as his equipment for this walking. This is gripped tightly in his fists with his elbows firmly held into the body, Figure 5.01. The manner of the walk is with slow, sensitive to any movements, paying attention to the place, the tightly gripped stick, in a controlled walk. When my father reaches a successful location, the stick seems to have a life of its own. It moves with what seems like a gravitational pull to indicate the presence of an underground water course.

What is pertinent in this practice, in relation to this research is how my Dad doesn't hold onto an idea that he knows where this water is. He doesn't take ownership of knowing, only that this is a sensing between things. As he walks, he looks up with a cheeky smirk, seeming to ask 'is this the stick's knowing, my hands, my feet'? He knows this knowing is held as a tension within the ritual of slow, embodied walking, between hand, twig, ground, movement and water. He says 'there must be something there' not 'I have found the water course'. In the poem, *The Diviner* (1966, 22), Seamus Heaney describes this intuition as a correspondence, this secreted knowing, sort of like the spring water communicating – 'I am here'...

*'the rod jerked with precise convulsions,
spring water suddenly broadcasting
Through a green hazel its secret stations.'*

As a way of beginning my enquiry for a walking practice, these small moves with my father allow me to reflect on these *between* spaces that hold agency.

There are tensions between these things that I wish to examine in my walking: the interfacing with place and ground, my own rhythmic movements. From divining, I can take the ideas of sensing and of a deferred knowing not located in my individual brain, as methods to think with in the series of walks I make in a cemetery.



Figure 5.01. My father, Fintan Duggan, demonstrating divining. Walking, concentrating – elbows tightly held to the body.

Dead moves, why walk in a cemetery?

The place chosen for the walks is Mount Jerome Cemetery, in Dublin, Figure 5.02. The walks carried out here are during the time of the Covid 19 pandemic which began in the spring of 2020. At that time, restrictions were placed on people regarding travel and distancing. This meant that funerals could not be attended and funeral and burial services were severally

curtailed. The normal cemetery rituals of walking to a grave-side, grieving and attending a funeral with other people ceased due to the health restrictions.

The initial reasoning in picking this place was proximity: I live in Dublin overlooking Mount Jerome Cemetery and at the time travel was subject to restriction. But as an interaction designer I realised there was a question arising from this quietening of human happenings at the cemetery during a pandemic. I asked what other goings-on continue and what interactions happen during this disturbance of human ritual and interaction. As the human-centred focus of the cemetery is stopped, I wanted to consider what more-than-human happenings are figured at this time.



Figure 5.02, Mount Jerome Cemetery, Dublin.

This research examines a relational space between human and world. A cemetery seems to hold this division between the living and the dead as binary opposition in the context of Western, modernist knowledge structures where to be alive is not to be dead. Yet I realised this site can be a place where neat divisions including making separations between human and the more-than-human are disturbed. Visual communication design as described in chapter 2, cuts divisions as binary oppositions that in actual fact are dependent partners in knowing and being in the world. Ellen Lupton gives the example of the opposition between nature and culture – *‘the fact that Western societies have produced a concept of ‘nature’ in opposition to ‘culture reflects our alienation from ecological systems that civilisation depletes and transforms’* (Lupton, Abbot Miller, 1996a, 4). Each part of these divisions created are partners in knowing and being.

The cemetery is a relevant location for a practice in a politics of slowness since it involves human slowing down and demise, enabling considerations of being and not being human, of being more-than-human and more than human beings. Where does human being start and end, if separated out as individual from the world? Jane Bennett’s discussion about the foreignness and otherness within us is relevant here, as my body is me, but with a multitude in terms of the microbiome that makes me. This calls for a close-noticing of this otherness we humans are part of. I can stammer²⁷ my human-centredness and individuality and recognise how I am relational in an environment. I stammer my language, to be a foreigner in my own tongue (Deleuze and Guattari, 2014, 156) as a listening-in mechanism for other statements being made. In order to think of the dependencies of connections as relational, this was a crucial space in which to conduct my site-specific field-studies, through ways of walking, stopping, pausing.

²⁷ Stammer; to stammer is a break in the fluidity of human speech. In a performative context a human stammer allows space for other affecting language that may not be human. In this context is a word that is interestingly to figure. This is a term used by Deleuze and Guattari in discussing a semiotic space between human and more-than-human.

In conversation with place

Introduction

As a research practice, walking allows me pay attention to my movements as an interface with the ground on which I tread, Figure 5.03. The important performative aspect of this practice is to emphasise the encounter as a conversation, without pre-empting what would be produced in the experience. I set out to make a series of initial walks, to be discursive in a place. By deploying walking as a primary human rhythm through which I can pay attention, it also implicates other movements – stopping, hesitating, looking from side to side, breathing, turning around. These basic movements then join with the active methods and partial affordances of design, archaeology and ethnography: drawing, writing, photographing, recording, digging, seeing, touching.

My aim is to create a performative practice as conversation with this place. The discursive, as discussed in chapter 2, has been framed as a listening-in, a reciprocal exchange – being in correspondence. The visual is about more than just seeing, it is part of a relational act, between ourselves and things in the world, an affecting sensing that is difficult to do in isolation. In walking I will create a series of texts, observations and writings that evidence this practice and my being there.



Figure 5.03. Paying attention to encounter. The interfacing space between feet and ground.

Hyphenating ----- practices

I have established that seeing is not a discrete, separate sensing; it doesn't happen in isolation of hearing; it is inter-dependent. If, as Ingold and Vergunst point out, a way of walking is a way of thinking and feeling (2008), it is productive to hyphenate these practices as inter-connected things. In making the following texts as analogous evidences through walking, I consider them a hyphenated practice, as conjunctive. Writing-seeing-drawing, or stopping-walking-writing emphasise the dependencies in this going-along performative practice. Seeing is dependent on walking, stopping, drawing, writing, touching; they flow into one another. These practices are held together in the walking actions as different rhythms: mine, this place, its environment and things. These practices enable the disorderly syntactical joinings of myself, place, inscriptive markings and concepts. In this research, I extend this openness to my attending to the ordinary, everyday, and my discursive going along in the cemetery.²⁸

The next moves I outline emphasise a commitment to this conversation with this place. I am interested in repetitive movements through walking which reveal variance and remain open to what unfolds in walking. I am stopping, writing, drawing, and evidencing these encounters as I go along. The texts, in italic, are collected from a notebook I brought along to gather field-note writings while walking. The texts are partial, part collections of words and part sketch, part drawings in an autoethnographic method outlined in chapter 4.

²⁸ This relates to the 'dialogical aesthetic', discussed in '**Walking as a research practice**' referring to an openness of listening and a willingness to accept a position of having of dependence and intersubjective vulnerability (Kester, 2004, 112).

Close-writing, in a cemetery, autoethnographic writing.

I have made twelve walks in a local cemetery, where I traverse the same space on different days, in different weather, times of the day, in different light. I have different thoughts, take different routes and wear different shoes. The walks are a setting out to question what is acting, relationally, when I act? Walking is a going along; to consciously use a reading and listening in to the cemetery. I am paying attention to my own timing and rhythms. In my walking, this intrinsic generative and performative moving allows other movements, inside and outside me, to unfold.

My rhythms change, stall, stop, listen, move slowly, observe. To start with, I pay attention mostly to human inscriptions on the head stones as I walk by – the names, dates, placenames chiselled into the stone. As a default position, it seems I only listen-in to and see the markings and shapes created by other humans. I catch glimpses, in this movement, in walking. This cemetery is nearly 200 years old, in some cases I am straining my eyes to read fading words on headstones.

Repetition allows rhythms to establish, not as sameness, but as differences and variations in patterning, texture and experience. In paying attention to my present, the histories of the cemetery become evident. These first series of walks foreground human things – names, dates, relationships outlined in epitaphs, using alpha-numeric code. As I walk past and beside many headstones these names, dates and surnames merge as an inter-animating continuing sentence. It seems like the default human noticing to start with is within a human-only sphere of meaning-making, the focus is on human-made signs. This references directly back to my discussion on Deleuze and Guattari's signifying-semiotic space, discussed in chapter 3, 'Diagram as methodological' (2004, 134). I am paying attention to material and immaterial affordances that make a cemetery: headstone, grave, epitaphs, dates and ages chiselled into stone, threaded into rituals, life-stories and memories.

Taking a word/concept along walking.

In my walking practice, the next tactic is going along with a word. This is to try-out the performing role of language, of word, while walking. The aim is to question how this alters or allows me to act and think in certain ways. In relation to visual communication design, discussed in chapter 2, language, type and image can fall into a representational role. Modernism frames language as formed, meaning established and set. In taking a word along with me, out walking, the practice shifts the already formed representational mode and how it stands in for things, to an active doing, going along with role of language. My practice lifts language into in-act mattering while going along walking. I am trying out words and their concepts as relational things, as active in the world.

This next auto-ethnographic text, is an amalgam of field-notes, charting walking with a word. I walked with many words, but here I will discuss the word 'duration' in particular. Perpetuity is chiselled in to many headstones which connects to ideas of time and a sense of on-going forever. This word 'perpetuity' seems to question ideas of whose and what duration has connections to rhythms, different timings, temporalities. This word allows a focus on the materiality and thinking about these varying temporalities.

Walking with the word 'duration'.

The word 'duration' is a concept I am taking along to walk with. To stay in the present this word allows me to think of movements, in the making, changing positions. To walk I need time, and to make sure I stay present, I take 'duration' along. Within a material-semiotic frame, concepts can come walking, as a practice of incipient thinking. This is the practice of 'in-act' (Manning, 2016, 15) conceptual thinking. In doing this practice, walking isn't pre-eclipsed by a concept of duration, nor do I attach this concept after the action. Duration gets to do and act in the world as a tool to think with. As a visual communication designer, to think in experience moves me from thinking about the words, images, artifacts of design, as complete, done or

finished. This practice of walking is seeing forms in formation, through adhering to things as processual.

The walking acts as a collective performativity for other movements, step after step, moving other movements. A drawing with my hand, thinking and seeing with the body, with place, air, light. I am making notes, I write some thoughts, I think, I move, and I sit down again. The markings I make are in-the-moment illustrating/making visible sketches – paying attention to different things. I use a rubbing technique to make out the faded lettering.²⁹ This act of making a drawing is procedural, allowing me to see form developing, in ‘formation’, as another durational rhythm within my ecology of practices. Drawing, photographing and writing are tied to both when and where. I begin to draw lines, use tracing paper to make patterns, images,



Figure 5.04. Design research – tracing lichen markings on a headstone in the cemetery, following the shapes it makes.

and textures. Tracing the markings made by the lichen looks like a map of islands and inlets along a coast, Figure 5.04. I sit in front of a headstone

²⁹ Refer back to Figure 4.6 & 4.7, in chapter 4, that chart some of the rubbings and tracings in the field-notebook.

and trace the markings of an imbedded typolite,³⁰ recording the lines, tones, positions of the markings, Figure 5.05. This re-cords me back into a durational in formation. In spending time making these drawings, I am drawn into its formation over 290 million years ago. The rhythms of my movements are happening in difference to the slow happenings with this rock/stone/headstone. Entities are moving into a 'becoming' paradigm.

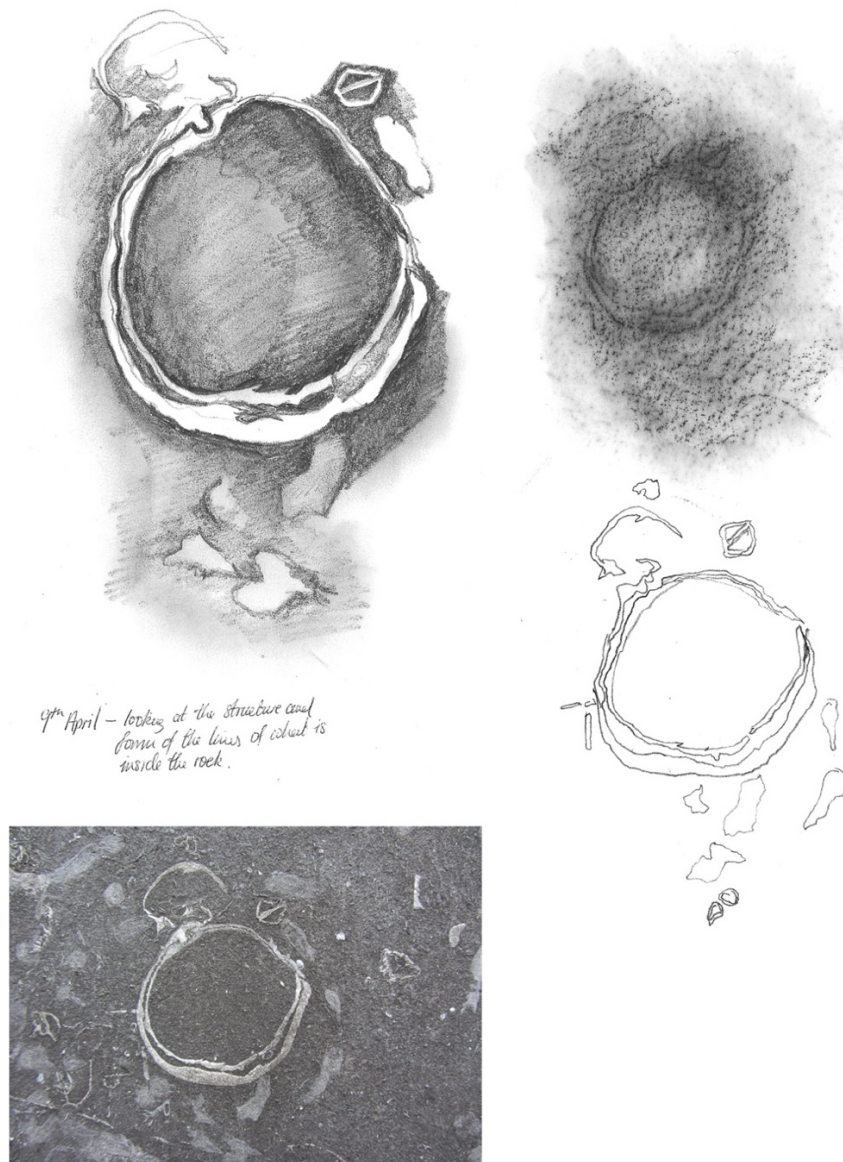


Figure 5.05. Drawing as paying attention to my timing, duration, in difference to deep-time. Sea-fossils in a head stone.

³⁰ Typolite – this word is interesting because it reminds me of the word type, typography – human inscriptions, but veers into natural history. Typolite, as referenced in the Oxford English Dictionary is obsolete, but was used to describe a stone or fossil which has on it impressions or figures of plants and animals. Retrieved June 3rd 2019 from <https://www.oed.com/view/Entry/208380?redirectedFrom=typolite#eid17316990>.

This tactic in walking with words has the effect of pulling words away from their thing or noun function to a going along, living, negotiated frame of in-act mattering. Forefronting this word 'duration' with walking allows a deeper attention of variance in temporalities. I become more conscious in timings, sitting down, stopping, with the slower practice of drawing, and the variance of temporal happenings are figured. In sitting drawing a sea-fossil, for instance, the durational time given to this practice opens up a reflection on other variant temporalities, the deep-time duration when this sea fossil was living, the compression and layering of materiality to make this limestone rock, the chiselled inscriptions on this rock and how they entangle with these deep-time syllables in the stone.

These variances are beside each other and my presence, bringing my present into proximal continuum with these other changing temporalities. There is an unfolding, processuality in which walking-drawing-writing unfolds. As discussed in chapter 4, critical performative ethnography allows me to examine this betwixtness, between my present and long ago sea-fossils. My attention shifts from the sole material conditions of things to consider the affect and performative happenings as part of experience. As D. Soyini Madison makes clear, there is a dialogic focus that keeps the inter-animating tension between me and other (Madison, 2005, 11). Walking joins the materiality of space, things and words, deferring a modern framing of visual communication as language of form. Through a walking practice with words, representation does not hold. The material-discursive or material-semiotic, through threading sea-fossil shapes with my thinking, is trying out a position outlined earlier in Donna Haraway's 'sympoiesis', a making with, a tactic in listening in and going along with the world.

Encounter with more-than-human participants.

Introduction

The initial walks have been about paying attention to my rhythm, in order to notice variance in other temporalities happening along with me. The headstones are a surface space for names, dates and epitaphs of human inscription, but also have unfolding nature, or more-than-human inscriptive markings of mosses, lichen and sea-fossils. As visual communication design concerns itself with flat surfaces in making communication situations, markings and inscriptions, these headstones are a productive focus. But this is also a space where I can speculate with more-than-human mark making, outside of my register of knowing.

My next focus, therefore, is on the lichen and sea-fossil markings that over code, entangle and affect the inscriptive space of the headstones. In referring back to Norman Denzin's ethnographic perspective, 'description' is critically regarded as 'inscription' (Denzin, 1997, 5).³¹ I am a designer-ethnographer making and thinking with a performing text. This questions and disturbs ideas of who does the observing and describing, and who is being described. These next close-noticing sessions require me to spend more time making and thinking through drawings, rubbings and photography. I return to draw with lichen, stone, moss and chiselled type on these flat head stones. I want to examine the inter-animating space – between human inscriptions on stone and more-than-human lichen and moss marking. Observing is a listening-in practice, paying closer attention. Drawing the sea-fossil shapes is a durational time, allowing me to reflect and think of their formation and timing. I use different modes of recording: drawing, photographing, writing.

From the initial walking practice as conversation with place, these next moves are a more specific form of thinking about drawing as a means of paying attention to the constituting affordances in lichen. This next section is

³¹ This is discussed in chapter 4, 'Ethnography'.

a closer-noticing, a specificity in recording relational ecologies. These conversations focus on the spaces between chiselled type, lichen, mosses, sea-fossils. In *'Thinking and writing with Lichen'* I record my encounter with lichen as a more-than-human, co-composing participant. I discuss a listening-in with these living, more-than-human things. From a participatory design perspective, they are regarded as research partners.

The discussion then turns to encounters with sea-fossils; in the section *'in formations' – rock as verb'*. I engage with typolites embedded in headstone. This is a closer digging, an excavation of correspondence via long dead marine creatures through their fossil markings – between me and this place. In both separate cases, the practices consider ideas of relational affect, reciprocity and interaction as affecting – intra-action. I also am reading these evidential texts I make, through literary, scientific and poetic texts, that inform perspectives on allowing space for thinking with more-than-human co-participants.

Thinking and writing with Lichen

Lichens, as organisms, break with the taxonomy of things; they are a sort of a classification anomaly (Gabrys, 2018, 352). They are not an 'I', or an 'it', but an 'us', troubling the classification of organism. Gabrys wonders about lichen's status as a way to tune human attentions 'to their relational quality as an ecological configuration of entities' (352). Thinking with lichens allows insight into the constitutive strategies of contaminating knowledge-making methods across differences, opening possibilities to see in new ways. The walking practice has made me conscious of my rhythm in relation and difference to other timings. Lichen is not an obvious research collaborator, but this more-than-human participant allows a rich enquiry across a relational ecological 'us'.

Lichens, as relational things, are not plants, yet they do plant things, creating chlorophyll, transforming nutrients and colonising soil and rock (Gabrys, 2018, 352). They are symbionts formed of two (maybe three) different elements, part producer, part consumer; they are algae and fungus

with a possible type of yeast (Collis, 2017). Robin Kimmerer writes eloquently about this partnership, their ‘us’ status, in sharing between an ‘algal partner’ (a autotroph), turning light and air into sugar through photosynthesis, partnering with a fungi (a heterotroph) which dissolve these sugars into acids and enzymes (2013). Gillian Osborne asks whether there might be a kind of writing modelled on lichen and Stephen Collis’s writing about Drew Milne’s ‘Marxist Lichens’ points to lines in his poetry - ‘clouds of graphematicity’, observing ‘how lichens are typographers of oxygen, sewing serifs into azures’ (2017).

These insightful references in scientific and poetic writing, inform and are read across the evidential work from encounter in the cemetery, Figure 5.06. The following texts – auto-ethnographic and visual, collected in being and corresponding in the cemetery, are fragmented evidences, that have possibilities of entering into new constituted affiliations, as this research unfolds.

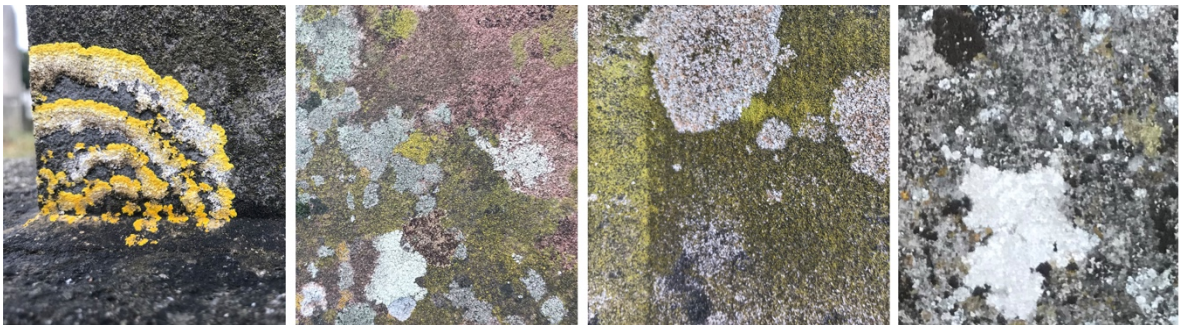


Figure 5.06. Lichen examples, Mount Jerome Cemetery, captured while walking.

Writing with Lichen – auto-ethnographic writings.

Lichen patterns radiate from the letters, names, epitaphs, chiselled into stone in alpha-numeric code, as I walk past headstones in the cemetery. The walking loosens the closed ‘entity’ or ‘form’ state I see things as. The lichens are a type of a-linguistic over-coding, an ongoing-ness, adding new shapes, like natures glyphs, to letters, words and names. I look closely at this one particular headstone to try read a sentence. Moving down this same stone, to read the patterns of greys and dark tones, on this headstone, I am drawn to read a brightly coloured plume of yellow. This

circular lichen, *Caloplaca flavesens*³² (Laundon, 1984), its scientific name, stands out.³³ Looking closer it radiates out from a letter 'o', Figure 5.07. I trace my finger gently along the indents to feel and reveal the word 'also'. The dictionary meaning for the word 'also' says 'amplification', or 'as a further point'. Its etymology describes 'also' as a 'corelative construction'³⁴ (OED, n.d). In my imagination this small circular shaped lichen has selected this indent, the human chiselled type to over-code its own meaning of 'also', Figure 5.07. A different 'as well as' amplifying, an 'us' as a relational partner.

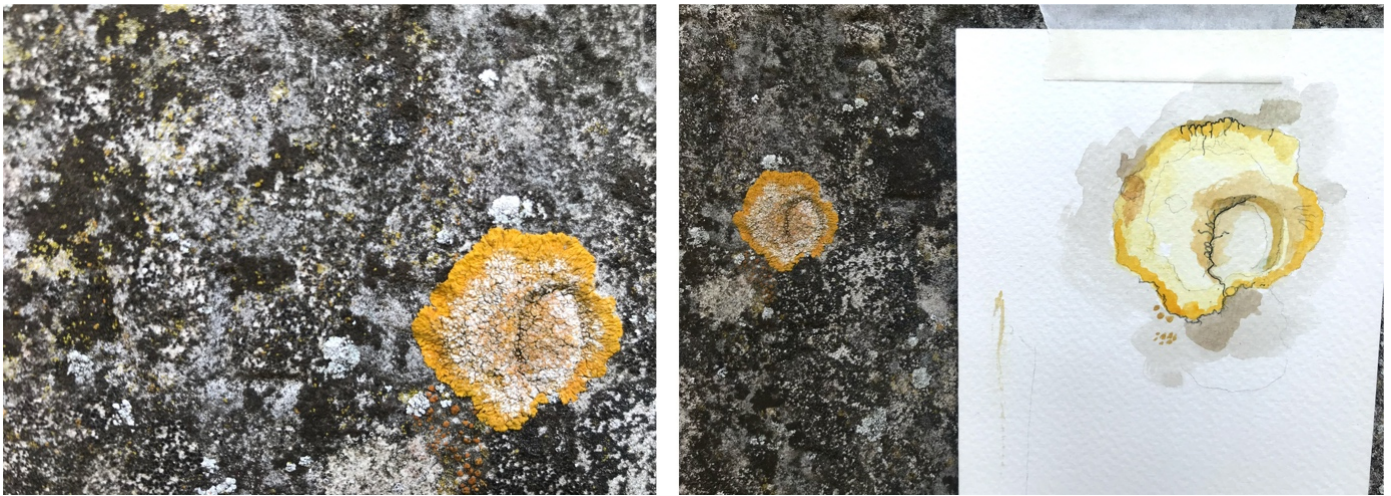


Figure 5.07. Lichen, scientific name – *Caloplaca flavesens*, overcoding the chiselled word 'ALSO' in the head-stone.

On the same head-stone, I can just about read the word – 'aged',³⁵ Figure 5.08. The human-chiselled text has the remnants of deep indents, in dark tones. In reading, I trip over the word, its obscured, joined actually by other marks. I am made to stutter in one language (human) as lichen patterns colonise the minerals of the rock, redacting parts, adding new shapes, to make other possible constituted enunciations. Chiselled text, takes up new shapes and movements – disturbances made through an on-going intra-

³² <https://britishlichensociety.org.uk/resources/species-accounts/caloplaca-flavescens> accessed September 2022

³³ Because this is *Caloplaca flavesens* lichen is over coding and growing in the word 'Also', I refer to this particular lichen (because I revisit it many times) with the name ALSO lichen.

³⁴ <https://www.oed.com/view/Entry/5740?redirectedFrom=also#eid>

³⁵ I will refer to this particular lichen again in the research and name it AGED lichen, for the same reason as the lichen discussed above.

action with lichen, weather, water, wind, cold, heat. It is difficult to make out where a stone mason started and finished this indented mark. Lichen is in play with this form, this shape. The evidential shapes of the lichens look like polyps or pock-marks affecting interfering, disturbing, but also part of the stone and indent shapes.



Figure 5.08. The word 'AGED' chiselled in stone with multiple lichen types over coding it.

A practice in listening in.

The auto-ethnographic writing, drawing, photography, tracings, rubbings together with scientific and literary writing, make up my practice in close-noticing with lichen. Being in the world as lichen is not individual or entity orientated, but rather a dependent algae-fungal partnership. Going along, as a walking practice, allows sensing and thinking with lichen, mixing scientific and research knowing with encounter and evidence of being in a place. This allows me, via Deleuze and Guattari's theoretical framing, to make an experimental practice, trying out what '*transsemiotic*' could mean, between these things, moving to constitute a sensing knowing.³⁶ This entails moving between regimes of knowing and making with other ways of knowing, making and being. The writing and drawing evidence collected between lichen and me defers positions of the either-or, cutting together

³⁶ Theoretically this is set out in chapter 3, in Deleuze and Guattari's crossing between regimes of knowing, referencing 'lines of flight' – moving out from the tight regime of signifying semiotics to allow new imaginings unfold.

knowing and sensing as constituted in embodied presence, literary and poetic reference and scientific research.

As a point in reference 'also' is defined in the dictionary as 'an amplification: as a further point; in addition; besides; as well, too'.³⁷ But 'also' as encountered with lichen, performs the action of 'with' another. These plural meanings and modes of inscription are speculative readings of 'also' with these co-compositions. New possible incorporated enunciations unfold. I reflect on how lichen is an 'also', algae-fungi. I think about my participation in this research with lichen, as a more-than-human partner. Ideas of my human individuality, finished, complete and whole change perspectives depending on which framing I use. This is a material-discursive forming of entangled meanings and definitions. It allows a constituting and overlapping of the visualities I make and collect. Gabrys weaves between biology and poetics, while through my encounters, drawing and writing I imagine words, meanings and lichen to have a textility, incorporating human and lichen sensing as an 'inter-us'.

In formations, rock as verb

This second meeting up 'In formations' focuses on noticing inter-weaving sea-fossil markings with chiselled type on headstones. From initial walking with the word and concept 'duration', by repeating the walks as a rhythm, and attending to my own duration, the deep-time happening of sea-fossil inscriptions in the stone come to attention. In spending time drawing the sea-fossil shapes on the head stones, as in a conversation in deep-time, correspondence ensues, referenced in Figure 5.09.

The embedded marine fossils that form part of some headstones are traces that reach across a duration I cannot comprehend. These limestone

³⁷ OED (n.d) accessed January 2023 from <https://www.oed.com/view/Entry/5740?redirectedFrom=also#eid>

formations date to the Carboniferous period, between 355 to 290 million years ago (Nield, 2014). In noting and observing these shapes and happenings at intersections with chiselled human type, my investigative trajectory reaches across the earth's in-the-making, deep-time duration. Geologist Ted Nield uses the expression 'syllables in the rock', in referring to these long stages in pre-human formations (2014, p55). This speculatively opens the question of more-than-human articulations, expressed, articulated in a deep-time process.



Figure 5.09. Using drawing and photography to examine sea-fossil shapes intersecting with chiselled type in the cemetery.

Archaeology of encounter happens across this deep-time horizon, between the presence of my drawing and deep-time formations. The *re-cording* that I have referred to in Tim Ingold's work,³⁸ is a way to re-member, threading between deep-time and more recent pasts, presents and imaginings of possible futures. These are inter-related timings as a search for 'syllables',

³⁸ Refer to the discussion at the start of 'Archaeology', chapter 4.

an on-going language-ing,³⁹ as other syntactical orderings – nature-human, entangled signatures across timings for constituting other expressions.

The notations and observations focus on the limestone headstones where exposed marine-shaped fossils form diagonal intersections and interconnections, with chiselled human epitaphs, dates and names. This close-noticing emphasises the inter-animating space between me in the present, the recent past of the stone mason, engraving into the rock and the deep-time formations of sea-fossil syllables. This variance in timings allow me insight into in-between temporalities.

In formations with stone, sea-fossils – auto-ethnographic writings.

Intersecting enunciations - ascenders, descenders of chiselled typographic epitaphs, marking dates and names, intersect with diagonals of organic, seemingly calligraphic inscriptions from imbedded sea-fossils. This inter-animating dance, at an estimate, is more than 290 million years in the making. To think in durations allows this wandering between then and now, between these earth timings and human rhythms. The headstone holds human dates and names, yet the presence of these limestone 'time-markers' in the stone remind me of an on-going worlding 'perpetuity' that reaches across, incorporating, deep-time durational insights, within a larger worlding system.

Where in the seas did this once sea creature inhabit? Where did it rest on an ocean floor? What compression and force, heat and weight made these impressions, shapes in this rock, of which I now sit in front of and draw? The drawing, rubbing, tracing, photographing, allows me to think and spend with these ideas of the long-time with connections to now. My looking is a re-threading between then and now. The rock may look frozen in time but in making this practice, it reiterates and performs this human-pre-human archive.

³⁹ This verb making of the word language is discussed in more detail in Chapter 3, 3.4.3 – 'Language-ing with design principles'.

The stone is slowly, always unfolding. The constellations of crinoids, shell shapes, indents of faded letters, form a new type of inscriptive writing and reading. This is a practice of forgetting parts that might just include more.

Discursive Practices through encounter and walking

‘Divining’ was a prelude to questioning ways of knowing as sensing and performative. This informed experiments with hybrid methods: seeing-writing-walking, drawing-listening-stopping, because of a distributed knowing, in divining, is not held or owned by human brain thinking. Walking with words, drawing as observational ethnography, and uncovering visual correspondences form a practice as a hybrid archaeology-ethnography-visual communication design.

The aim of these practices, in walking, is to explore my performative state in relation to other rhythms and movements with designerly ways of evidencing; capturing. By walking and paying close attention to specific elements—lichen, sea fossils, and chiselled inscriptions – I trace how rhythm varies across differing encounters. These embodied practices allow me to examine the relational spaces between myself, others, and place. As a designer-ethnographer, my doing is situated within an ecology of practices – walking, drawing, writing, seeing, and listening. This positions me within an unfolding worlding, alongside non-human lichen, sea-fossils, enabling me to notice the slow time of rocks and the quiet over-coding, unfolding of lichen. The traces collected through walking become dialogic: markings made in correspondence, a way of seeing through walking.

At the cemetery, I am practicing an affective knowing, seeing and sensing through encounter. This practice reveals an ecology of interdependent happenings, showing how many parts and elements contribute to the making of a single thing. Paying attention to lichen, through drawing, writing and through scientific knowing, reveals many composite identities.

My own markings, human inscriptions, lichen markings enter into this ecology of co-composition. The encounter with the word “also” carved into stone invites layered interpretations, linguistic, biological, embodied and tactile ways of knowing. The worn letters must be read by touch, tracing their form gently.

A key aim of these walking practices is to test modes of interaction – engaging the world through encounter. Visual communication design often operates as a form of capture, standing in for meaning. This practice shifts that mode: from static representation to an active, performative process embedded in the world. Drawing, writing, and photographing constitute with other meanings. The next phase involves a cataloguing method: using “meet-up” cards to name and acknowledge the things that shape these encounters—recognizing all the parts in this ecology of interdependence.

Cataloguing encounter; Meet ups,

‘An ecology of practices is not merely a description of the current state of how things are done but an identification of potential and novel forms of emergent knowing’ (Parikka, 2019, 44). An ecology is paying attention to all involvements in a system in order to establish the relations between (Parikka, 2019, 44). In chapter 4, as discussed, the meet up cards developed as a hybrid method that allows me to name and catalogue these involvements to know what is available for intra-acting⁴⁰ in encounter. The aim is to disturb a human-centred perspective, paying attention to the things affecting and intra-acting with other materiality and immateriality.⁴¹

The series of cards I made name things as an ecology of practice. The purpose being – when paying attention to an object in a place – to question what are the constitutive parts in seeing and knowing as an ecology of relational things. This method interrupts the consolidating role, seeing

⁴⁰ Intra-action, a word from Karen Barad that refers to an affecting type of interaction.

⁴¹ This practice draws theoretically Karen Barad’s ‘intra-action’ position in chapter 3 and developed as a method in chapter 4 – ‘cataloguing’.

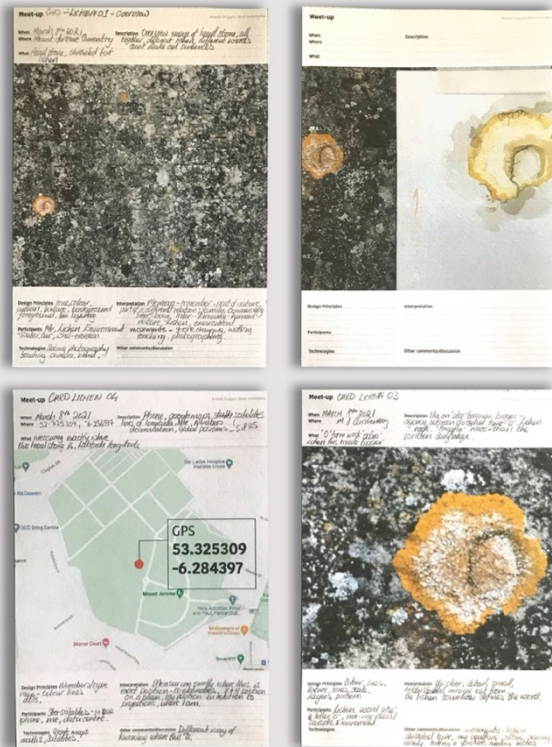
things as formed. This cataloguing critically emphasises seeing as constituting proximal things, involvements in a system. In naming the material conditions of things, I can then enquire into their affective and performative possibilities.

Figure 5.10, exemplifies a meet up card for a headstone. The normative perceptual reading of a close-up of a headstone is the partial names and dates. The practice in ecological seeing, using a meet up method, considers the things involved, naming these varying texts, words, visualities, as a form of distributed seeing. Figure 5.10, 5.11, catalogue specific examples of two headstones chiselled type and sea-fossil lichen inscriptions. The meet up card demonstrates the naming of facts, objects, descriptions, technologies, design principles and visualities as evidence of the ecologies involved.



Figure 5.10. Using meet up card to name the ecology of happenings on a head-stone in the cemetery. The intersecting grey circles denote the inter-dependent happenings between all things named.

Meet up cards Cataloguing



situated knowing
where, when, what

visuality
perceptual recording - drawing,
mapping
photographing

design principles, participants,
technologies
headings that acknowledge the
dependence in knowing - paying
attention to ecological
seeing-knowing

Figure 5.12. Each card makes a different visuality of the same thing. In the first image and card, the image is zoomed out. On the third card I consider the GPS co-ordinates, using a mobile phone, software, connecting the satellites as a different way of knowing. I include the ecology of technologies in these observations.



Figure 5.13. Meet up cards examining the same location but differing visualities.

Incipient cartographies

Moving from Actual to Virtual Archaeologies

I am enquiring into how visual communication design moves beyond its utilitarian role to embrace speculative, relational, and ontological practice. The aim, in this next move, is to take the situated evidences developed and to question how I as a designer can link into potential, imagined and possible relational ways of knowing and sensing. The next section, titled 'Incipient Cartographies', threads in ideas of virtual ways of knowing as becoming, emerging. This is about constituting actual with virtual, to make with ideas of potential, propositional, possible and in formation. In doing this I am questioning how diagramming⁴³ *between* creates new articulations and propositions – to open up uncharted relational knowledge.

The practice that follows documents a series of experiments that start out with the material evidences collected and encountered in the cemetery. I thread *actual*, mark-making evidences in walking, into *virtual* ideas of variation, speculation and imagining. This entangles the evidences I see and collect, mine and the more-than-human into new variations of possible enunciation. This is operationalising theoretical positions, drawing on the work of Deleuze and Guattari in chapter 3, of '*tensors lines*' and '*lines of flight*' as diagram between semiotic regimes. The next practices, as an incipient mapping practice, are grounded in Karen Barad's 'material-discursive' dependent material and immaterial framing, parts as interdependent things, actual and virtual.

⁴³ This directly refers to Deleuze and Guattari's conceptual 'diagram', relating to semiotics, discussed in chapter 3, 'Diagram as methodological'.

Making a mapping room

Incipient cartographies interrogates affective happenings between things. Based on Karen Barad's 'agential realism', discussed in chapter 3, I have delved into concepts of how agency happens when things meet up in a process of becoming as 'intra-action'. Figure 5.14 is a visual of my initial sketches focusing on what an affecting intra-acting could be. I am questioning whether when things meet-up is something new and different created. Indicated in the sketch are themes of dynamic lines, overlapping, affecting movements, referencing what is performative. I have discussed in 'mapping as method', in chapter 4, the artistic practice of Julie Mehretu and Ingrid Calamé, to reference a mapping that interrogates contested spaces. Through ideas of location and space, as both compositional and unfolding, I think through ideas of design studio and mapping place, that evolve into an idea of making the mapping room.

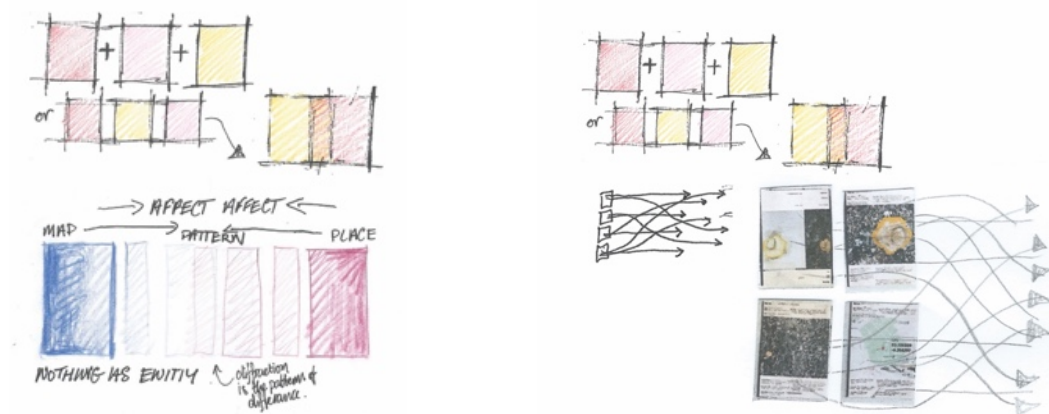


Figure 5.14. Planning sketches illustrating what I want to achieve in setting up a map room – to examine affect, proximity and relationality.

Examining ideas of on-going continuums and processuality

From the small sketches in my notebook examining overlaps, I develop a designing studio space as a map room, to examine how the wall spaces make visible the actual and virtual as constituted experimenting. Figure 5.15 imagines this room as performative. Wall, marked 1, indicates space for actual evidences collected. This is a gathering space to draw together the writings, visualities and the meet up cards collected in encounter. This design studio and map room provides a space to critically think about other ways of knowing and locating.

Space marked 2, on Figure 5.15, indicates the meet up, the virtual, possible space. This is the dynamic space of the map room, where things meet up; to try out varying ways of *intra-acting* with correspondences. This conceptually represents encounter – questioning what is intra-acting as a material-discursive practice.

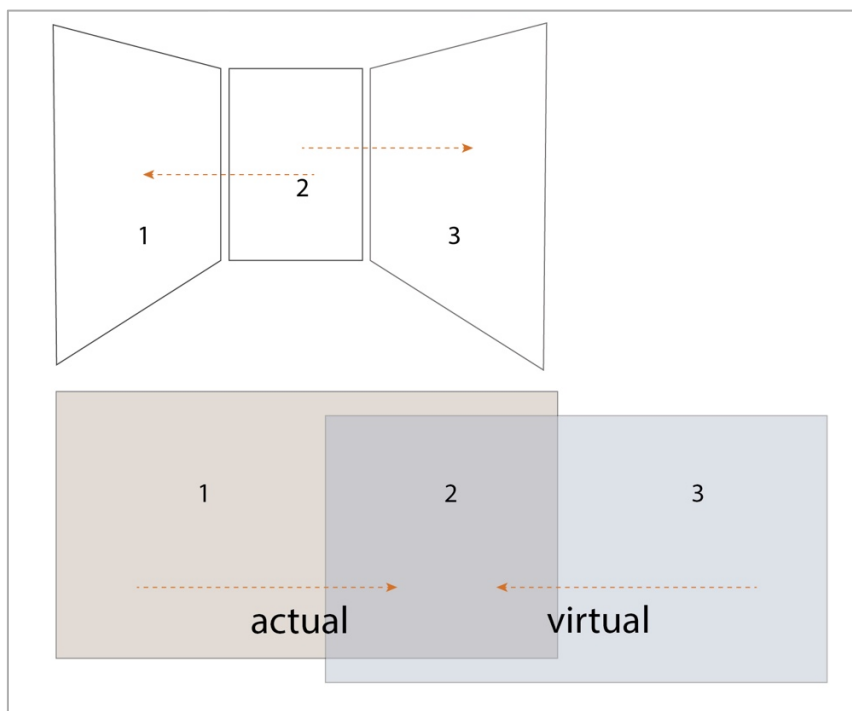


Figure 5.15. Sketch planning the set up of the map room studio space.



actual, real

virtual, abstract - imaginings

Figure 5.16, Map-room in operation using a small project room at TU Dublin, between 2nd and 16th August 2022.

Wall marked 3, Figure 5.15, gathers the experimental marks and tracing, as layers of performing, drawing, calligraphic moves between my lines and others. The map room allows me to examine the relationship between the materiality of my knowing and seeing in walking, to draw lines between imaginings for making new articulations made when semiotic regimes meet up. This acts as an experimental processual space for cutting things together and apart,⁴⁴ to imagine new connections and possible enunciations.

⁴⁴ This is referencing back to Karen Barad's proposition cutting together-apart (Barad, 2014).

Figure 5.16 is the map room space created.⁴⁵ The collection of evidences made in the walking-seeing-drawing practice, as fieldwork in the cemetery, gather on wall 1, Figure 5.17. These are the writings, words, photographs, rubbings, drawings, tracings along with meet up cards, to work and think with. Figure 5.18, 5.19 are close ups of the evidences on this pinned up, moved around, altered.



Figure 5.17 – Map-room, illustrating wall 1. The collected evidences, photography, rubbings, drawing, colour study, tracings, meet up cards.

⁴⁵ This was made in a project room at the Technological University Dublin, East Quad, Grangegorman. In operation for a 2 week period, 2nd – 16th August 2022. The walls are soft as pin-up spaces, map pins easily are used.



Figure 5.18. Close on wall 1 in the map room. Evidencing.

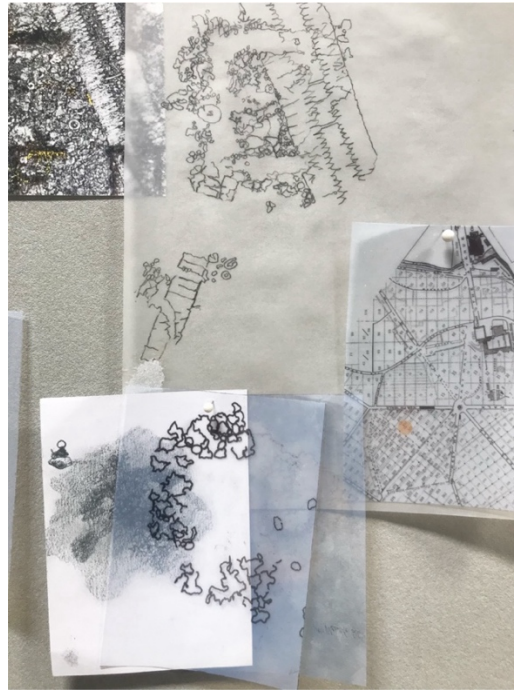
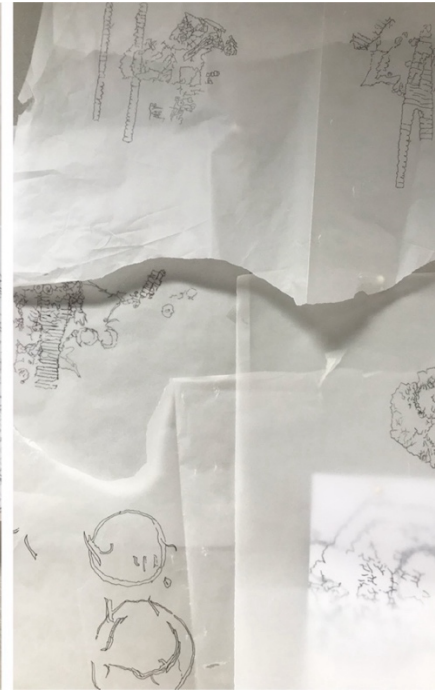


Figure 5.19. Close on wall 1.



Processual thinking and making

The aim of this mapping room is as a processual space, to think with ideas of what is doing when things meet up. Figure 5.20 visualises this investigating aim as a speculative, intra-acting space between actual and possible thinking. I directly reference the theoretical positioning in chapter 3, Karen's Barad's conceptual affecting 'intra-action', to question this as a designerly, visualising practice.

A, in Figure 5.20, figures this theoretical underpinning of 'material-discursive', outlined in chapter 3 – intra-action. B, indicates the function of the meet up card methodology – to identify what is available for intra-action. C, indicates how sequence or storyboarding as method allows me to investigate performativity. Part D, is an experimental example, a case in point, indicating the type of experimenting with the proximal visualities of chiselled type and sea-fossil markings. The experiments that follow all have this common aim, to make speculative animacies between human and more-than-human mark-making.

Performative intra-action is tried out in a practice of sequence and narrative, experimenting with methods of critical keyframing, storyboarding and tweening, as discussed in chapter 4. This is demonstrated in Figure 5.20, marked D, using narrative to conjugate part human mark-making as chiselled lettering with more-than-human sea-fossils markings. I entangle inscriptive markings from different durational happenings and semiotic registers, to make visible a hybrid mark-making as proximal relational things. The storyboard sequences allow a speculative semiotic mixing, to question transversal intra-actions between scripts, lettering, lichen, sea-fossil shapes, collected in the cemetery. This entangles rhythms and durational variances as new correspondence between human and more-than-human knowing. This questions what new enunciations are constituted, in these imagined affiliations. The try-outs of visualities incorporate sequencing methods, through thinking with narrative.

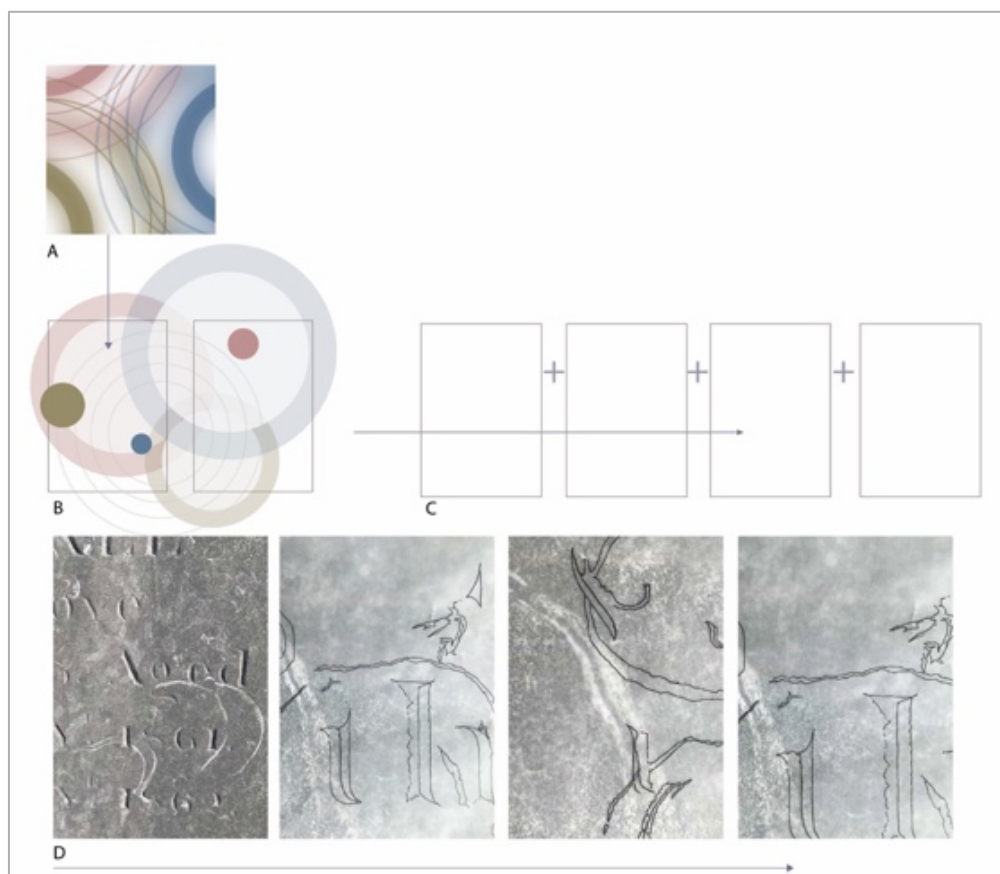


Figure 5.20 Model outlining the theoretical and practice ideas in relation. How does thinking use storyboard and sequence to think with a material-discursive framing

The map room examines many 'what ifs'. What happens if human type is backgrounded and lichen growth foregrounded. What happens if sea-fossil shapes and markings, evolved over a long durational time partake in an animated dance with chiselled type, as a recent history. Visual communication design methods provide critical technique in cut and paste, altering opacity and transparency, using layers to disjoin and join anew a worlding meaning-making.

The software programme Adobe Photoshop is a prothesis to seeing and visualising I use to critically extrude figure and ground, altering transparency, opacity, layering, cutting parts of seeing, arranging parts of the image in different layers. With software I darken, lighten, contrast, and change size, figuring alternate emphasis, accentuating parts of the image by changing opacity, tracing lines over parts of the image. In questioning how seeing is constituted as ecology, I ask if new unfolding relations emerge, reaching across semiotic regimes. Partial marks from sea-fossils mingle, as intra-action with shapes of chiselled type, collapsing durational, separated happenings to imagined interconnected ones.

Allowing an entangling of human and more-than- human inscriptions

The practices that follow try out layering, opacity, transparency and hierarchy. I have made a series of experiments to think with signs and marks as partially cut up pieces of my semiotic regime of knowing, along with marks and signs outside my regime of knowing. Figure 5.21, 5.22, are beginning sketches from the design research notebook, to make visible partial lines, overlaps, lichen and sea-fossil marks. Figure and ground are considered, foregrounding human things such as chiselled type and backgrounding sea-fossil mark-making. The sketches are a beginning in disturbing these default positions. I use tracing paper as opaqueness. This experimental play provides a new space to try out compositional things as processual, examining unfolding things, to imagine new affiliations.

This inter-animating play on signs between differing semiotics regimes acknowledges performance between these worlds, incorporating a semiotics of not knowing, outside my normal register. This is an incipient thinking, an unfolding cartography to try out movements that locate me differently.

Figure 5.23 and 5.24 demonstrates further try-outs, applying sequence in varying inter-animating spaces. Here they start out visual, a photograph, focuses on a diagonal sea fossil in the rock intersecting chiselled letters E and R. I apply the intra-acting model, diagramming, outlined in Figure 5.18. I run the processual experiment again. I have traced over the intersecting inscriptions between human and sea-fossil markings, to pay attention and reflect on an inter-animating space. In doing so the idea of object, the entity orientation of things collapses to allow the unfolding of durational narratives which are constituted as an entangling speculative performance. If grammar is a concept that describes the whole system and structure of a language, here I open this out to widen the spectrum inclusive of worlding language ecology and incorporate the more-than-human mark-making. This experimenting is a speculative grammar between human and more-than-human inscriptions, reordering figure and ground proximities. These start out experiments inform the next series of experiments, that incorporate scale and hierarchy.

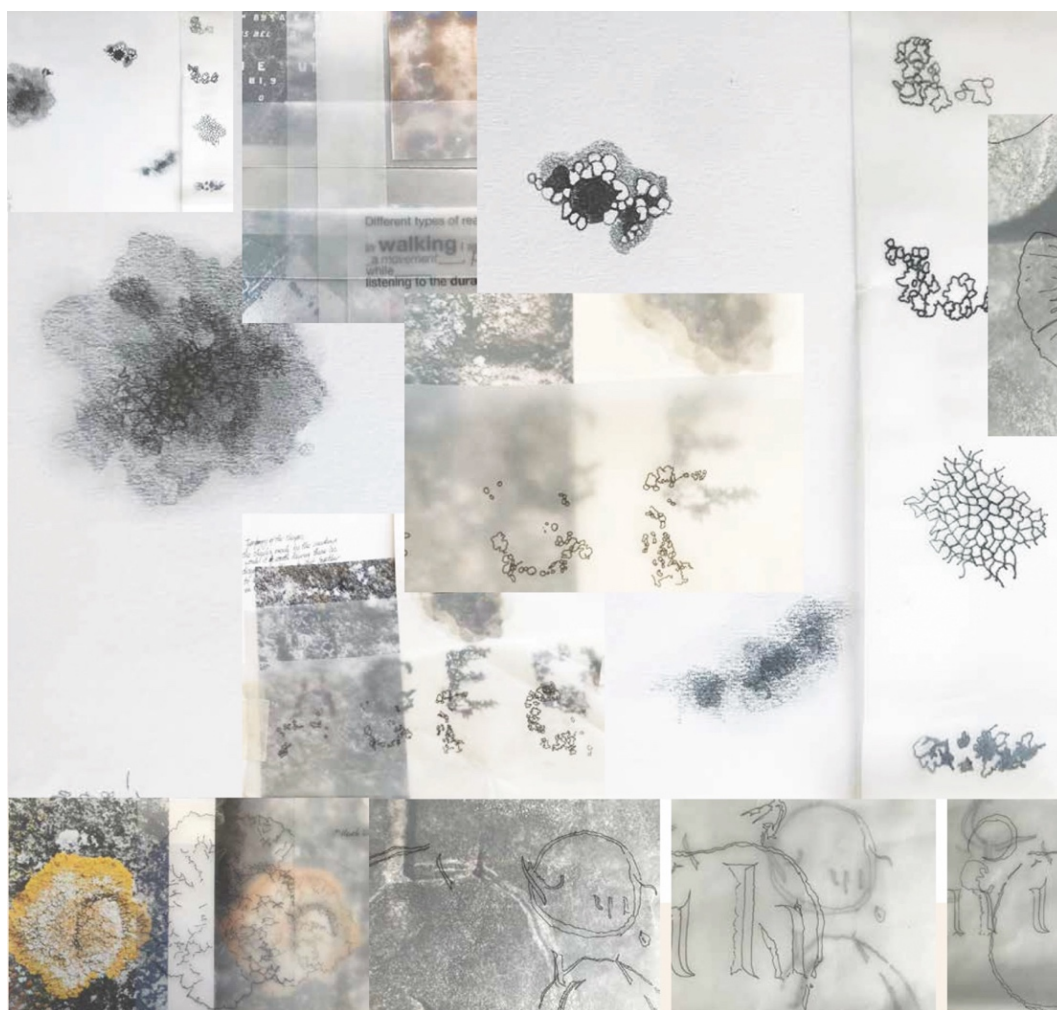


Figure 5.21. Design research experiments examining overlap, proximity, performative and relational with evidences collected.

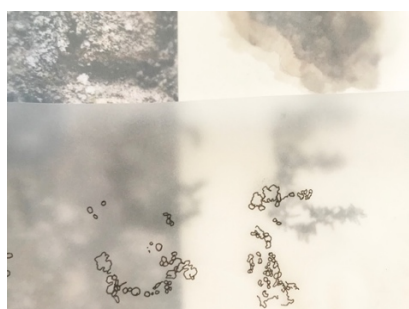


Figure 5.22. Design research detail from above.

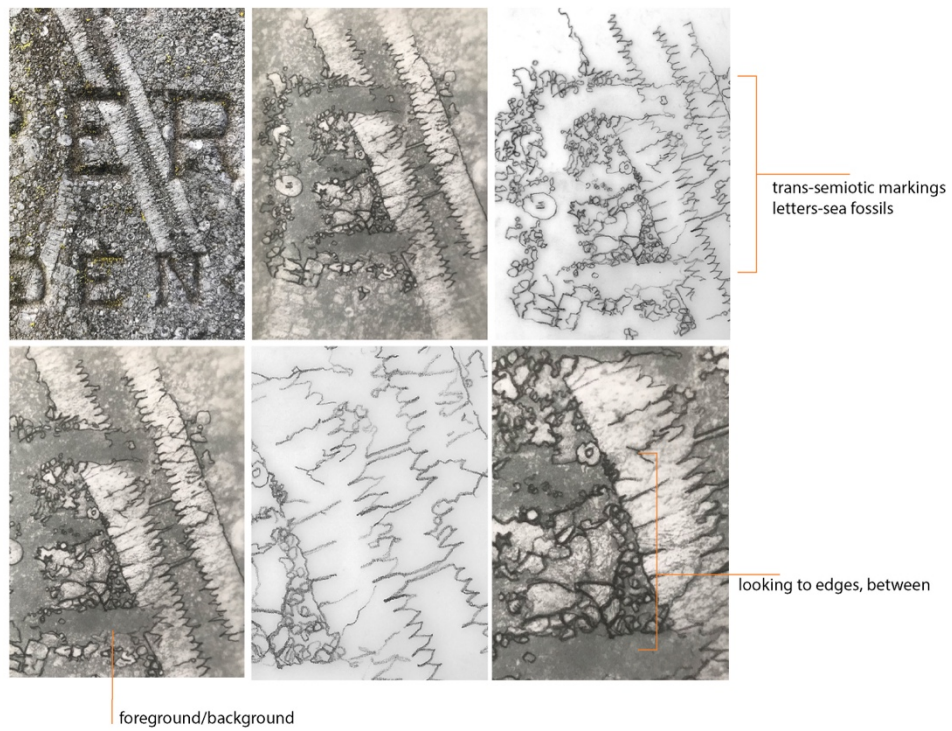


Figure 5.23. experiments in re-ordering narratives, sequence, background, foreground: between human chiselled type and sea fossil markings in the stone.



Figure 5.24. Using Adobe Photoshop as a method in opacity, transparency.

Map room; a changing scale

The experiments leading up to this focus on small drawings, overlaps, and words in a design research notebook and the computer screen. The next experiments are a change in scale, using the full wall spaces of the map room to further interrogate relationality between human and more-than-human mark-making. I use a projector to view at scale the digital images scanned on the computer, Figure 5.25 and 5.26. The next series of try-outs in the mapping room are processual and performative experiments working with space and time. Large sheets of tracing paper and white heavy drawing paper are placed on the end wall of the map room.

Lichen; figuring and tracing its marks as close-noticing

I return to Also lichen, observed, drawn and noticed while walking in the cemetery. This small doily-shaped lichen intersects with a barely readable word - 'also', accentuating the 'o' chiselled in the stone. Tracings are made large by digital projections in the map-room, showing intricate and detailed emphasis of lichen shapes, Figure 5.25. 'Also' (the word, human definition meaning, scientific understanding) and 'also' chiselled with lichen as algae/fungal also is polyvocal.

In the map room, lichen markings are foregrounded, figured, and human words grounded. The experimental marks, the photographs, are made large and visible on the end wall of the mapping room using projection, becoming the main thing, large, up front. Figure 5.26 show some of the visualities as shapes, lines, colour resulting from the drawings. I use different materials, ink, charcoal, pencils, paying attention the lichen marks.



Figure 5.25. Map room set up with projection. Changing scale.



Figure 5.26. Details of visuals made from projections in map room. Lichen with chiselled type marks.

Sea-fossil shapes figured.

Following on from the 'in formation' section, developed through encounter in the cemetery, the next try-outs are a further reflection on the rhythms, thinking about duration and temporalities. I am interested in the durational variances between me in the recent past and a longer time horizon. The stone mason, chiselled these stones nearly 200 hundred years ago; the sea-fossil shapes formed in deep time, over 250 million years ago.

Using a brush and black ink, I trace the shapes and movements these lines are making. Figure 5.27 illustrates this thinking and making with lines and movements. Figure 5.28, is a resulting sketch, part Roman letter entangling with sea-fossil shapes. This is rhythmic movement, durational thinking, a type of choreographic drawing, as they are larger scale. The inter-animating calligraphic markings, part traced from the chiselled Roman characters on the stone part fossil intersecting marks, become entangled as 'inter-animating things'. I think about the man (not a women then), these serif shapes and I reflect on the origins of their development. What is pertinent is that these forms informed the development of serif typefaces throughout Western typographic history. Robert Bringhurst charts this development:

'Those Roman inscriptional letters – written with a flat brush, held at an angle like a broad-nib pen, then carved into the stone with mallet and chisel – have served in their turn as models for calligraphers and type designers for the past two thousand years' (Bringhurst ,1996,119).

The practice is a writing between, as hybrid markings and shapes entwine new imagined joining up and cutting apart, partial signs I know and marks I don't know. My signs, the alphabetic code, have become stammered, constituted to let in other utterances, part organic, part chiselled typographic cuts into the stone. The performative movements are like learning to write again, as a new hybrid writing system between the shapes of alpha-numeric code, chiselled stone that transversally reach across deep-time, to sea-fossil shapes in this stone. This allows an inter-animating polyvocality to

unfold. The lines and shapes on tracing paper resemble a practice in post-human calligraphic choreography, incorporating ascenders and diagonals from the entanglements of both more-than-human and human marks.

Following lines between semiotic regimes, with lichen and sea fossil shapes.

This is an imagined learning to write, that incorporates marks, lines, shapes made with another semiotic regime, outside and alongside mine. In mixing and cutting together these entangled different durational inscriptions, the movements are a processual making and reflection about timings; temporalities. These calligraphic movements allow a processual engagement with contextual reaches between differing durational rhythms.

This calligraphic inter-species mark-making is a processual thinking with deep-time (sea-fossils), recent histories (chiselled type), the present and ongoing futures (lichen's over-coding). My drawing, thinking and looking speculate about other imaginings or knowing, join with sensing marks, not in my semiotic register. In chapter 3, I discussed design anthropology as a widened time horizon, to think about a better relational ontological positioning. This now is a speculative practice that diagrams between semiotic spectrums, to include knowing and not knowing, or knowing beyond human-centred knowing.

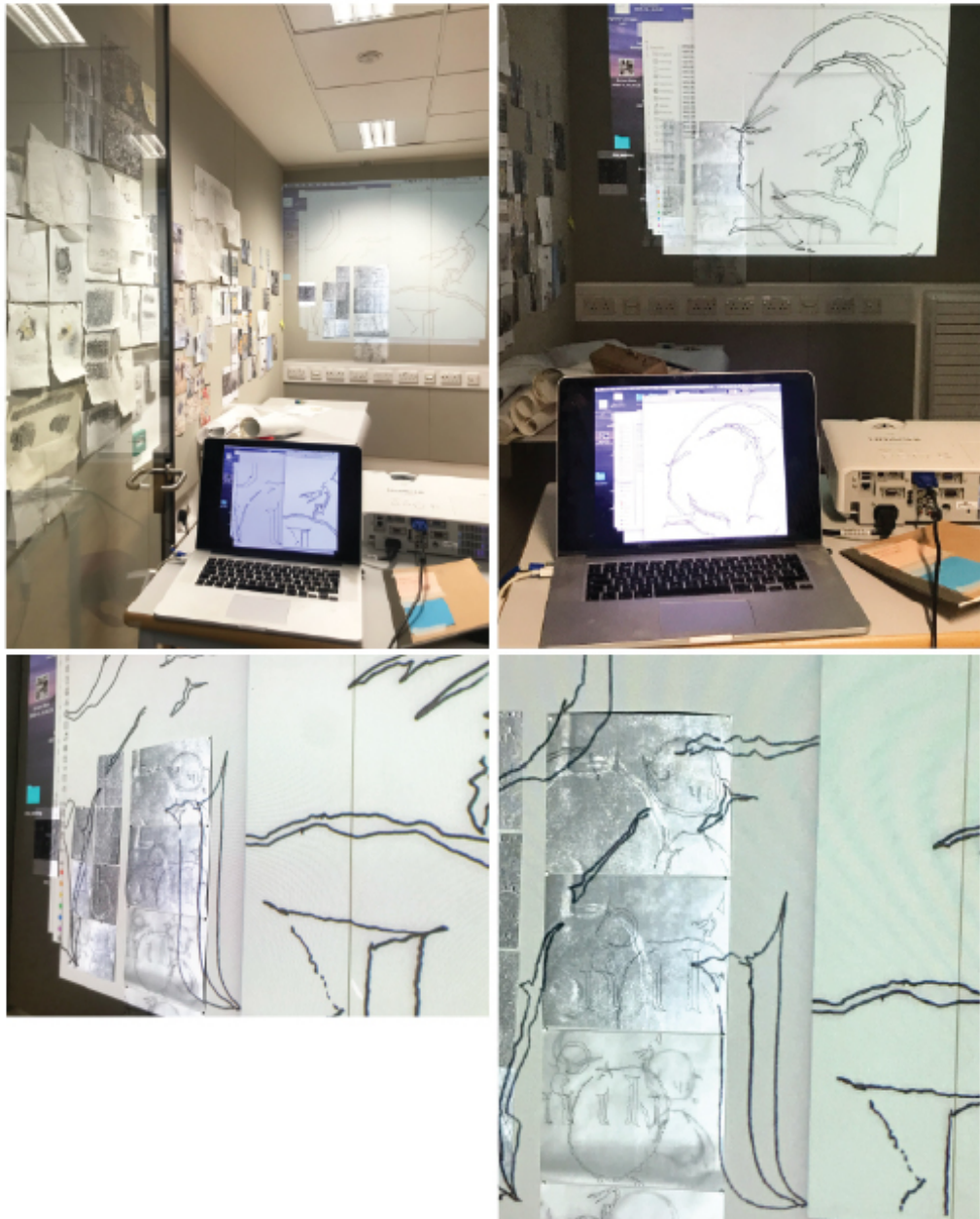


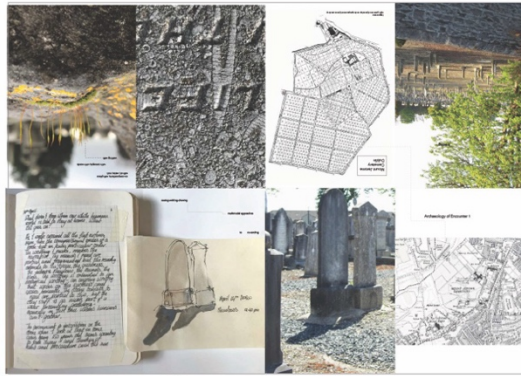
Figure 5.27. Map room work in progress. Interanimating mark making between human and more-than-human mark making.



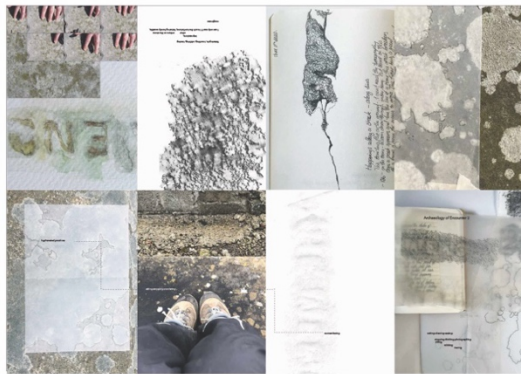
Figure 5.28. Mark-making between sea-fossil shapes and roman chiselled type. Experimenting in making an in-between calligraphic writing.



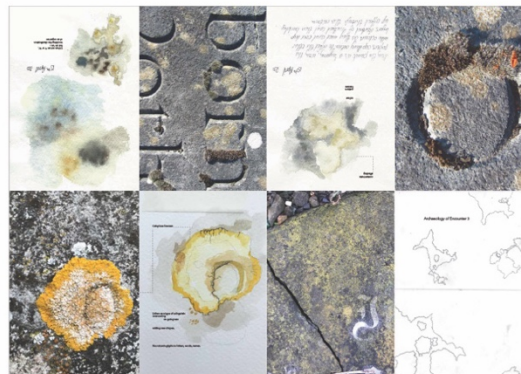
Figure 5.29. Collection of inscriptions made in the map room.



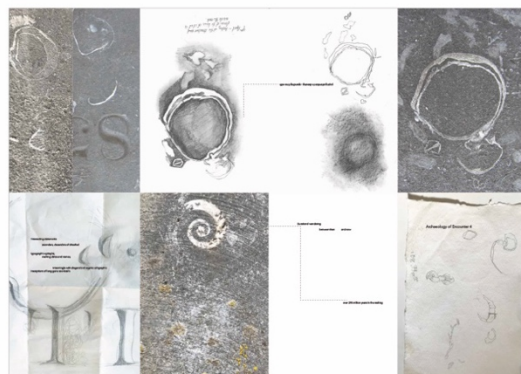
Archaeology of Encounter (AE)



AE 2



AE 3



AE 4

Figure 5.30. A2 sized fold-out mapping 'actual' encounter in the cemetery. For a closer examination of these refer to Appendix 3.

Making processual mappings

Chapter 5 started out from a place of actual encounter, an engagement in walking with the materiality of place. I have discussed the dependent nature of material-discursive, material and immaterial, as actual and virtual dependent parts of being and knowing. I have outlined these two distinct parts to this chapter as actual and virtual. In order to draw a connecting relational line, I have made a series of seven fold-out mappings. The first four have are made from evidences in 'actual' encounter in a place, I call these Archaeology of Encounter 1; 2; 3 and 4,⁴⁶ Figure 5.30. These sample the words and visualities made in correspondence with place. The second series of mappings are double-sided speculative imaginings, emerging or unfolding from the experimental moves in the map room. These three mappings are called Incipient cartography 1-3, Figure 5.31. I have made these two sets of mappings that will be used in the next chapter, by way to listen in with the more-than-human partners.

In Archaeology of Encounter (AE) 1 to 4, Figure 5.30, my presence is required to evidence encounter in the cemetery, is their common thread. AE 1 references first encounters, charting beginning to look closer, near and far. I set out only to be 'discursive', to have a conversation with a place; not pre-empting any direction. The visualities are mappings, photographs, fieldnotes, drawings, in my initial interaction in Mount Jerome Cemetery. AE 2 continues with close-noticing, listening-in, sensing as incorporated, through evidences as tracings, rubbings, drawing, feeling, touching the stone. Both AE3 and AE4 are a more specific close noticing with lichen and sea-fossils: I spend more time drawing-writing-photographing as a conversation between me and more-than-human research partners, lichen and sea-fossils. AE 3 follows the connections between lichen, moss and chiselled types. It indicates how I start to see in-betweens, between human inscriptions on stone and more-than-human lichen and moss marking. Colour flows between chiselled type indents, between moss, lichen. AE4

⁴⁶ For a closer examination of these mappings, please refer to Appendix, page 2

focuses on stone as performative; in forming between sea-fossils and chiselled letters. Both these fold-outs denote closer observations. Drawing the sea-fossil shapes is a durational time. This act allows a thinking of its formation and timing.

Incipient Cartography 1, 2 and 3 (IC1, IC2, IC3), Figure 5.31, translate the experimental deviations; choreographic thinking moving from human mark-making as actual, evidential, to becoming speculative, entangled, more-than-human, practiced in the map room. The focus in making these mappings, collects in a foldout map format, which show the lines, tracings and small and large possible new virtual enunciations. Incipient Cartography 1 (IC1) stays with the themes of lichen, focusing on the small Also lichen, following a thread in the walking evidences and texts of Archaeology of Encounter 3, AE 3. Figure 5.32 draws the diagrammatic movements reaching from actual into virtual. The visualities extended from actual to virtual, entangling colours, tracings, foregrounding new shapes and lines. In moving to the inverse side on the mapping, human words and texts become quietened, disturbed, difficult to read, for another reading to take place. Language moves and flows, changes spelling, deviates in meaning, over time and place.

Drawing lines between

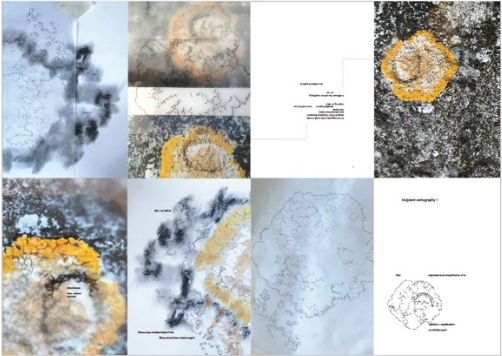
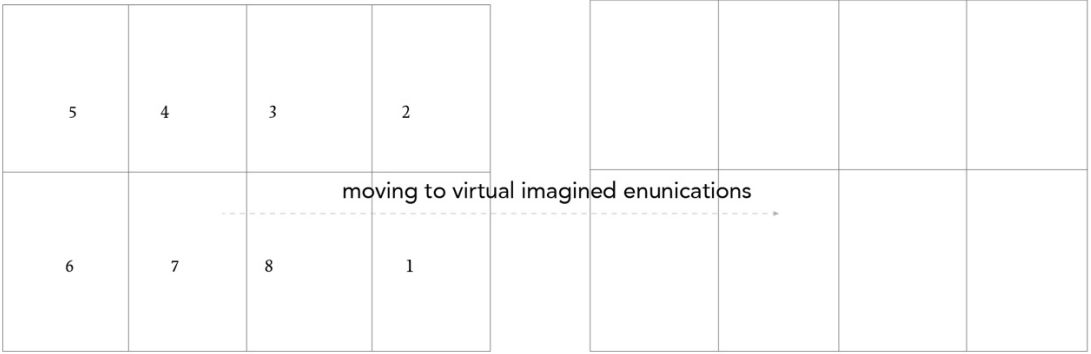
Each of the incipient cartographies mappings follow the format of the Archaeology of Encounter maps (AE 1, 2, 3, 4) in Figure 5.30. I base these incipient cartographies on the correspondences specified in the first 4 maps. The 'Also lichen', translates into Incipient Cartography 1 (IC1); the Aged lichen, is the focus of Incipient Cartography 2 (IC2); and in formation sea-fossil, featured in Incipient Cartography 3 (IC3), figure 5.31, 5.32

The enunciative markings of lichen are to the fore - louder, clearer. IC 2, in Figure 5.31, are further mediations with lichen, extending the specificity of the 'AGED lichen'. 'Aged' has a definition in human terms which denotes the passing of years, measured in numbers – of growing older. Lichen 'aged', doesn't have this same aging process, demise or measurement that the

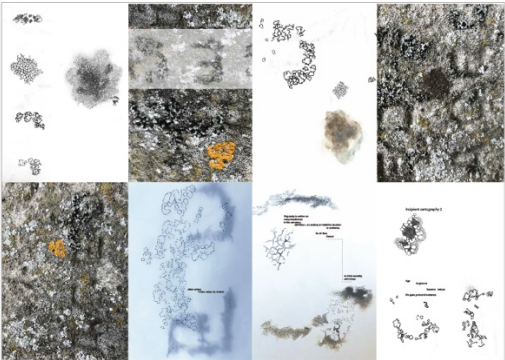
human term has, defying the term, to age (Rosner, 2012), entering into an affecting durational temporality, deferring a human preoccupation with age as numbers a precise measurement.

IC 3, Figure 5.31, is a focus on the inter-animating marks of sea-fossils, taking some of the inter-species calligraphic strokes and tracings made on tracing paper in the map room. This charts movements between chiselled letters and sea fossils. Human and more-than-human regimes of signs, have left partial ascenders, descenders that become a hybrid marking.

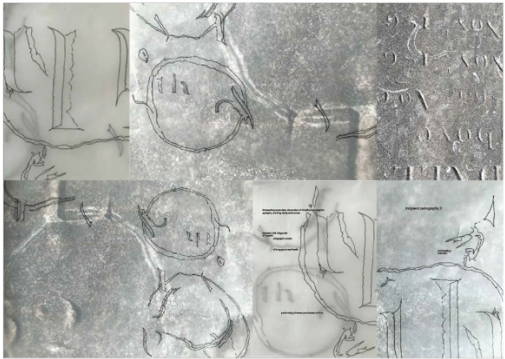
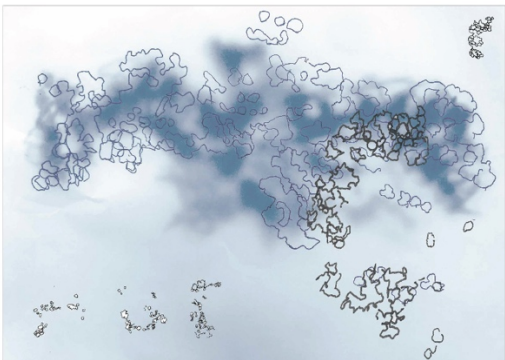
These lines I draw in making these maps allow me to reflect on more-than-human as active participants in making knowledges in a relational and ontologically facing design practice. These mappings serve as something to go back to the cemetery to consult with the place and partners again. The readings are a sensory attentiveness, in which actual and virtual are parts of the same thing. Each of these becoming mappings are read starting with the outside, moving to the inside and revealing some of the partial large-format mark-making generated in the map-room.



Incipient cartography 1, IC 1



Incipient cartography 2, IC 2



Incipient cartography 3, IC 3

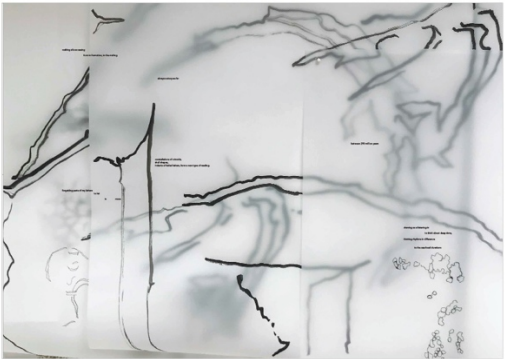


Figure 5.31. Between human and more-than-human mark making, Also lichen, Aged lichen and sea-fossil entanglements.

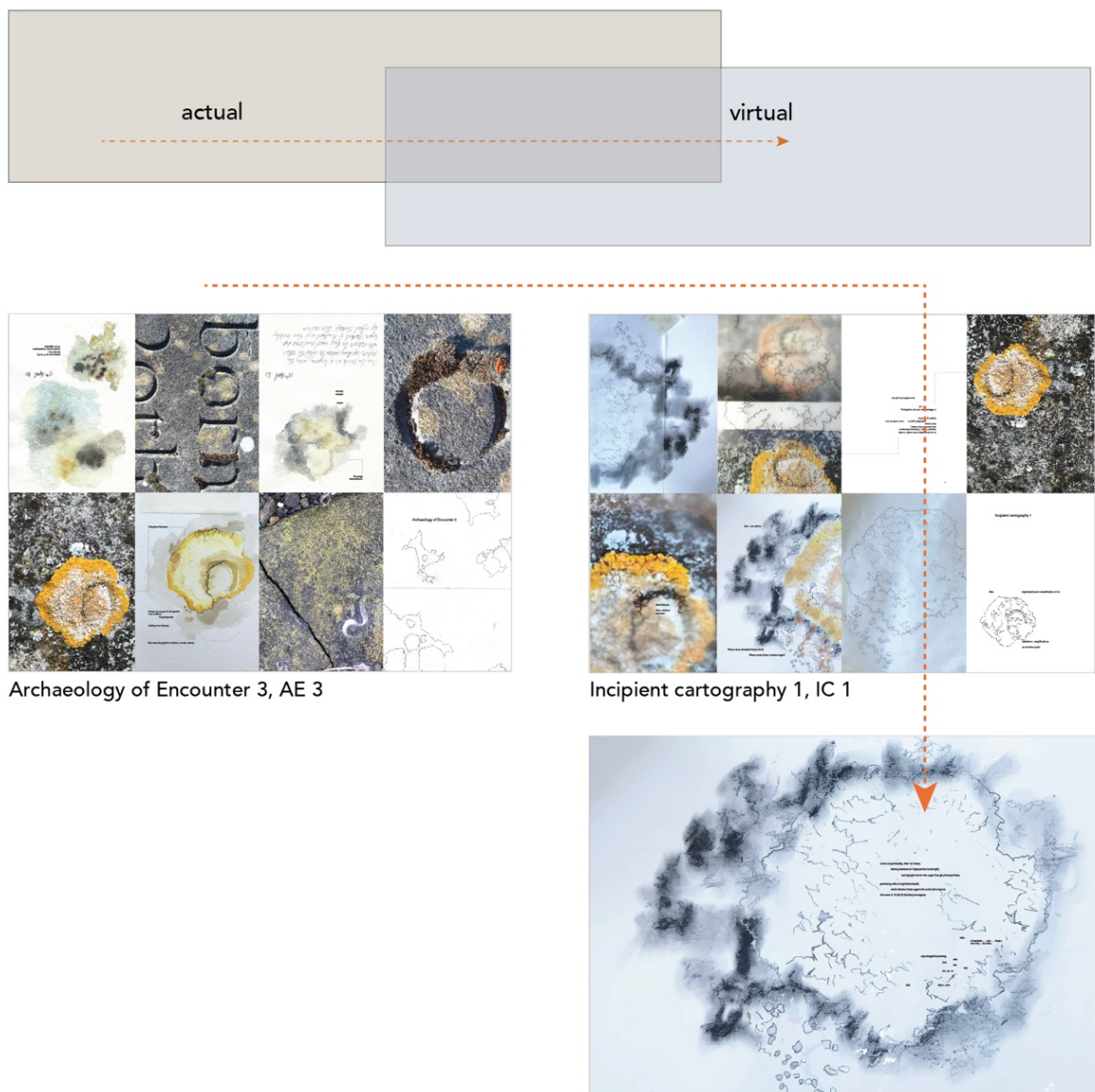


Figure 5.32. Examining the dependent nature of material-discursive unfolding knowing.

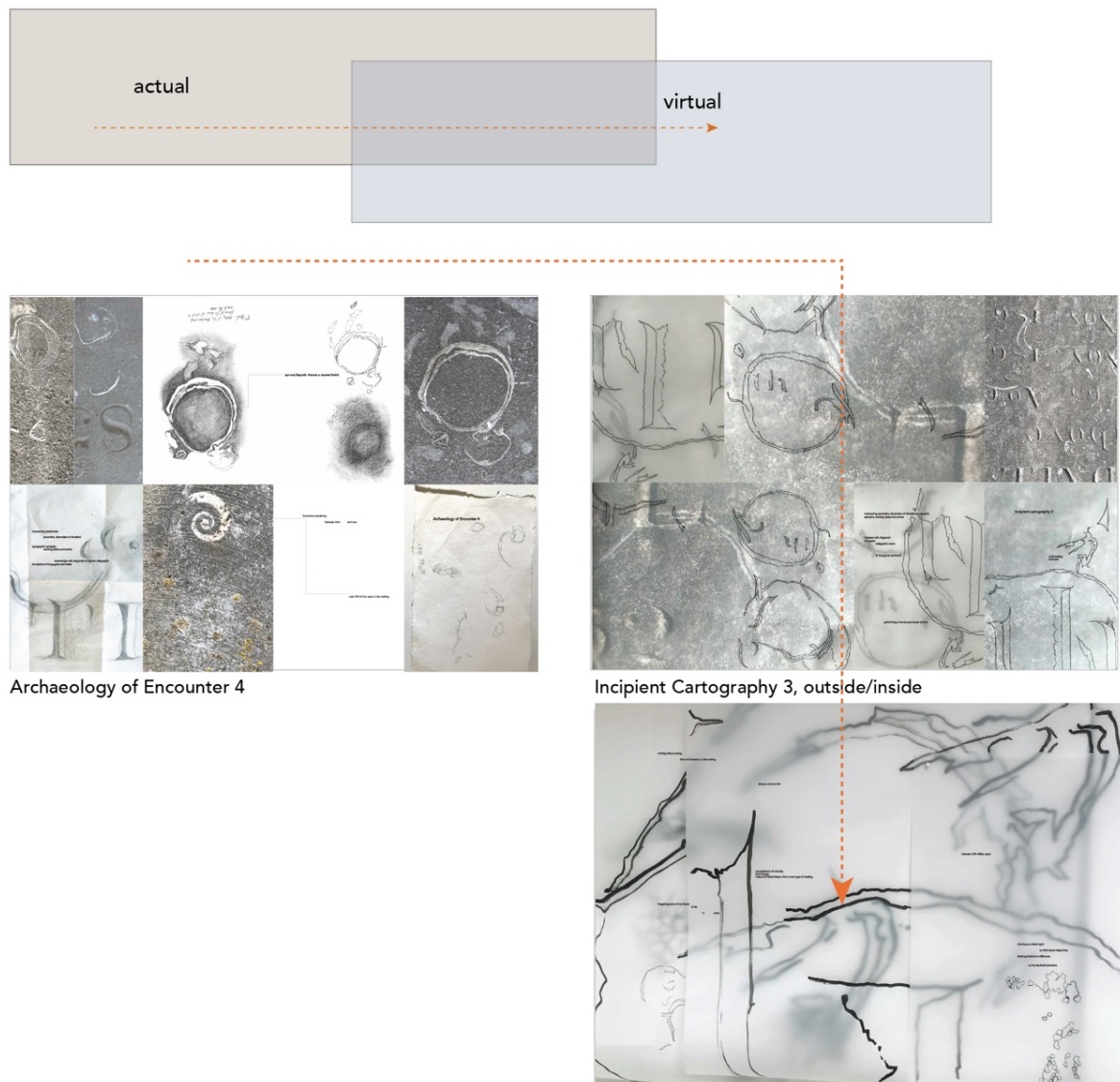


Figure 5.33. Between actual and imagined, Sea-fossil and human type entanglements.

Chapter 6:

Conclusion: A practice to language relationally

Introduction

This research has been concerned with how visual communication design can foster collaboration between human and world. By now, I believe I have made clear how the more-than-human are and need to be co-partners in this research; they are intrinsic, involved, and collaborative in the practices I have developed. To develop the methodological ways through which this can take place, I have incorporated in my practice those theoretical positions discussed in chapter 3, where agency happens in an affecting in-between space. In this new framing, both correspondence and agency are a co-created happening *between* things.

The project has acknowledged and developed partnership and participation between human and world. The practice I have documented in chapter 5 evolved through methods of drawing, photographing, writing, walking and mapping in correspondence with sea-fossils embedded in stone and lichen growing on rock. As the project moves towards its conclusion, I revisited the cemetery. This final work was with the aim of testing my relationship with these worlding things as more-than-human co-creating partners, animated, relational, vital, rather than backgrounded or merely benign. This final step informed my reflections on the findings I have reached as regards the key aspects needed to build a methodology for ontological visual communication designing. The first part of chapter 6 revisits the cemetery and the second articulates the project's contribution to knowledge.

A space for response

In chapter 2, I considered the discursive and visuality as being tied to reciprocity. This listening in 'with' importantly requires leaving a space for response; I referenced Donald Schön's reflexive practice of the designer as listening in to the 'talk-back' in a situation.⁴⁷ I also made the case for an active performative language, that 'does' in the world and that is not separated out as a human-only self-referential practice. In asserting the

⁴⁷ Chapter 2 – 'What is meant by discursive in visual communication'.

need to be response *able*, to be able to actively respond to a more-than-human worlding, I needed to fully recognise and acknowledge my collaborators. The final encounters of the research explicitly try this out.

I return to the cemetery, and to the sites of encounter with sea-fossil and lichen. I take along the field notebook, the writings and the seven incipient cartographies made in practice, as described in chapter 5.⁴⁸ I start out in this return to walk with maps tucked under my arm. I am getting a feel for this place, stopping where I notice lichen and sea-fossils, consulting my mappings. I do so in a manner of looking for directions, to question how these mappings locate me in a different way. I then return to the specific places from which the drawings, writing and correspondences originate.

I lay out the visualities in front of the lichens and sea fossils, Figure 6.01 and 6.02. The mappings and words have been created to be active relational things, to create a space of connection, as a fluidity between me and the more-than-human. They are incipient lines, overlaps, colour and forms. I have in mind the theoretical position discussed in chapter 3, that no agency is held by any one entity, but happens in the affecting space between (Barad, 2007). The mappings laid out are evidence of this shared agency, created in this meet up, between me and these partners, so it is important to consult with them. I sit quietly and listen in. I read reflections and writings silently from the field notebook while sitting with these things. I reach out and gently touch the headstones. I write some words by way of composing incantations that can address and speak to my research partners. I pose an important question: how have the research partners allowed me listen in to them and what unfolds from this? How do my more-than-human partners give voice to this research.

⁴⁸ Named Archaeology of Encounter 1-4 and Incipient Cartographies 1-3.



Figure 6.01. Revisit to the more-than-human research partners – lichen.



Figure 6.02. Revisit to the research partners – more-than-human.

To language relationally

In chapter 2 I considered the holding function in language, how it captures and freezes ideas and knowledge as representational, as if ‘immutable’ (Latour 2015, 3). Now, I examine language as active, relational and a constituting part in experience. In revisiting the cemetery, I think back to the discussion I reference in Robin Wall Kimmerer’s work where indigenous languages are recognised as being more abundantly verb orientated, as having a ‘grammar of animacy’ (Kimmerer, 2013, 57). As I concluded in chapter 4, this is because these languages are derived from experiential encounter in the world, meaning making unfolding out of doing in the world.

Part of my examining relational language as discussed in chapter 3, related to the performing of incantations, citing Manchán Magan’s look at Amergin

(Magan, 2020, 11),⁴⁹ and this is brought into the final revisits to the cemetery.

Following their cue, I chart two conversations that take the form of poetic relations, where I address directly, the more-than-human, as a form of experiential encounter, a form of imagining and a relationality as attunement. I defer a rational position where these things are normally backgrounded, to test my openness to listening in. As I discussed in chapter 2, I am examining as Kester puts it, how this is a 'willingness for intersubjective vulnerability' (Kester, 2004, 2). The revisits are part reflection and conversation in the shape of auto-ethnographic writings. In each case I have formed two short incantations to accompany the visual mappings, by way of address to these more-than-human things.

Attunement is a word to think with for these correspondences, as the more-than-human partners exist in a different register: they have voice, but not as a form of speech (Bastion, 2016). At the start of chapter 3, I referred to Anja Wegner's 'Fishy Architecture' and the idea of 'tuning as dynamic' in her conversing with fish on collaborative architecture (Wegner et al. 2021, 188). The meaning of attunement is generally 'to bring into agreement or harmony with something'.⁵⁰ Here I use attunement not as an agreement, but to enable a resonance in difference between me and the more-than-human world, which is an act of relationality. I am finding a way to tune into the variance of rhythms, tempo, temporalities. In what follows, I use auto-ethnographic reflective writing (the italicised passages) to question the contribution these collaborators do: in allowing me to listen in to other languages, to knowing, to be in attunement and to be in step and out of step. Each conversation with lichen and sea-fossil, has a short incantation composed as direct address to the partners.

⁴⁹ Chapter 4, 'Language as relational'.

⁵⁰ https://www.oed.com/dictionary/attunement_n?tab=factsheet#34058639

Revisiting lichen

After initial walking and reflecting with the mappings, I have come back to meet up with and spend time with my specific encounters: the 'Also' lichen and the 'Aged' lichen. I return to these because I have followed and documented my encounters with them in chapter 5. I lay out the visual and textual mappings on the ground in front of the headstone where this lichen resides. I think about the agency between us evidenced in these mappings. We, the lichen and I, have made this work between us. As acknowledgement that this work is not wholly mine but has been co-created in our meeting up, I have arranged it so that it sits between us, as in Figure 6.01. As part of this 'us', it is important also to acknowledge the human being buried at these sites that allow me revisit the otherness we human are part of. Opening chapter 5 in 'Dead moves, why walk in a cemetery' I consider being and not being human. This revisit allows me to acknowledge, in gratitude, the people buried here, as part of us, their times, rhythms, memories and stories. I hold up details of visual movements, I have made in the mappings, Figure 6.03, 6.04, 6.05, 6.06. I reflect on what these active visualities have allowed me to do.



Figure 6.03. Sharing, acknowledging, listening in.

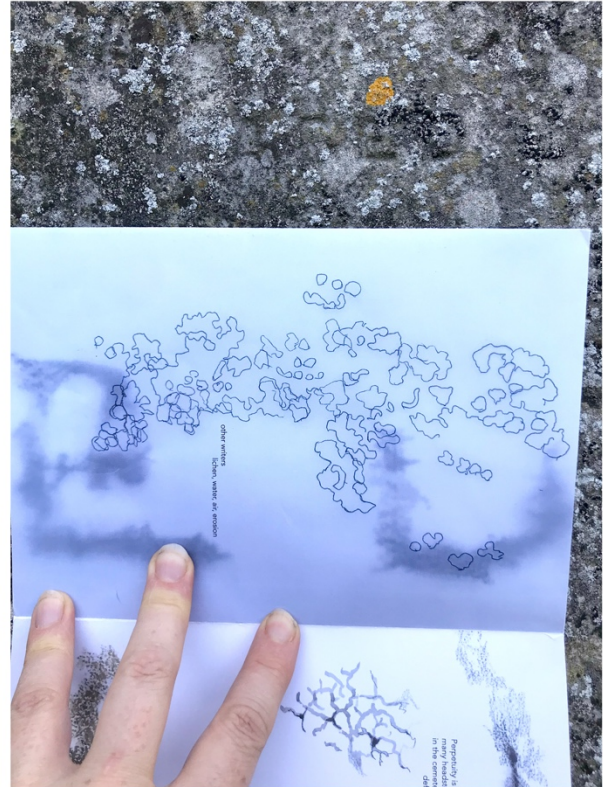


Figure 6.04.



Figure 6.05. Amplifying



Figure 6.06.

Slow down, breathe, listen. Words disappear, I wait and I wait, reflecting on these multiple references, along with the lichen itself. I think about the words I can barely read, the lichen affecting these names and dates on the headstone, making a slow reversing of memory, over-coding, layering more, as forgetting is part of memory.

I sit and I wait.

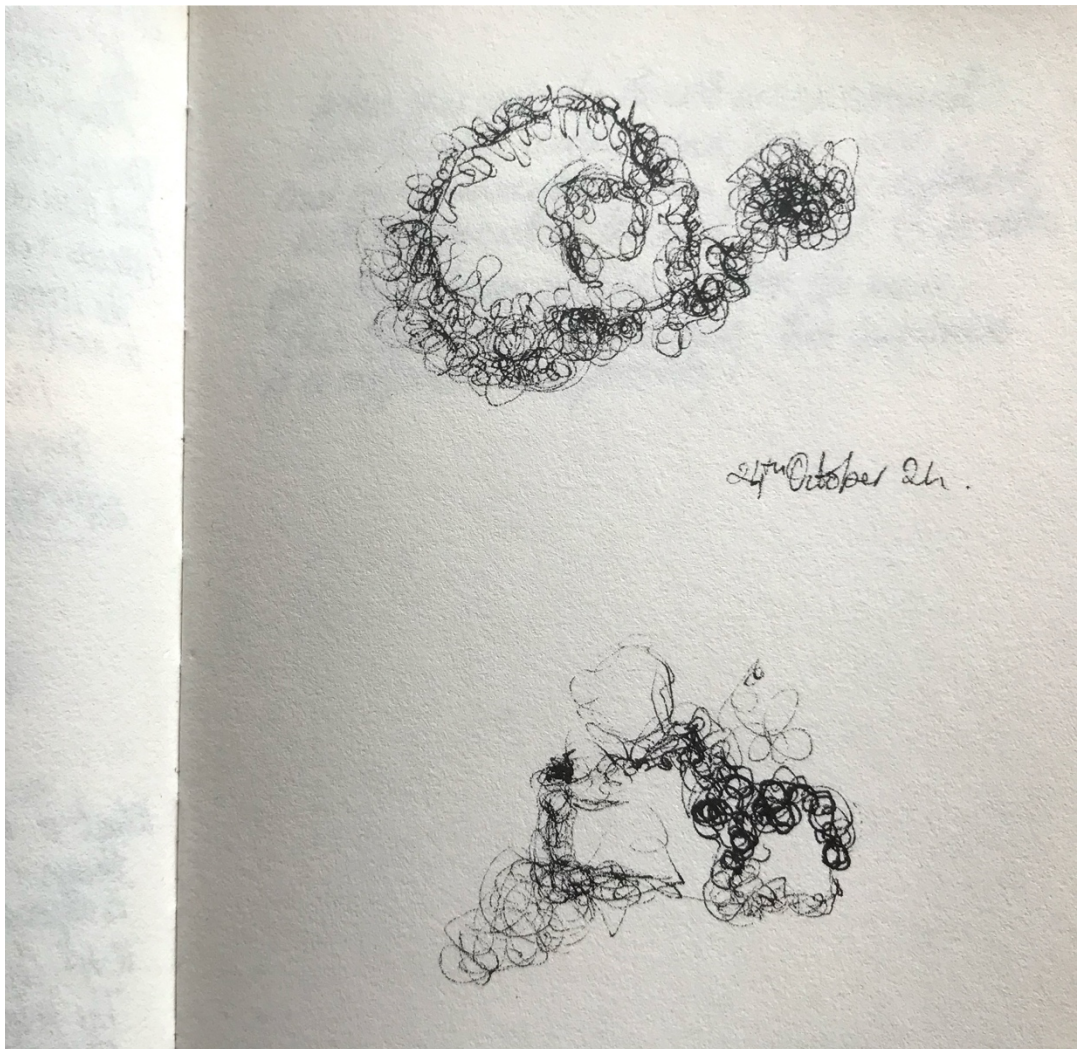


Figure 6.07. Drawings to settle the attention between me and lichen. Practice in attunement.

As I sit down in the cemetery beside the lichen, I take out the field note book. I make a drawing as a way to tune into being present, Figure 6.07. These lines are made in not taking my eyes from what I am drawing and I don't take the pen off the page. This is a practice in attunement, to quieten my rational thinking that seeks response as words, a sign, a message, as answers. This redrawing asks nothing of the lichen, it is by way of my focus, paying attention and quietening the mind. This allows me to reflect on the maps already made. I reflect back on the walking with my father in divining: him holding a stick, paying attention, deferring knowing as a type of betweenness. The knowing of a deep water course underground happens in distribution between a hazel branch, tightly gripped hands, walking, feet meeting ground, earth, water. With this, I can feel knowing move out into the space between me and the lichen; it is a practice in saying 'I see you' in reciprocity, as correspondence, within an ecology of practice. This seeing is not a singular ocular act, here I am referring back to chapter 2, where I reference John Berger's seeing as a relational act between ourselves and things in the world (1972, 7). This is seeing, as a feeling, that can't be separated out to one sense, akin to a *close-noticing* described by Anna Tsing (2015).

I reflect on my being a research partner with lichen. I think that lichen might not think me a good partner – being human, individual, loud. I reflect on its partnerships – algae-fungi connecting to the energy source of light, as photosynthesis (algae). Lichen says to me in silent exchange – 'be patient, share, don't always take... give and receive as a reciprocity, like me.'

Another 20 minutes pass. The quietness is difficult. The human conversationalist would close off this awkward silence; fill it with something, anything...but I sit with silence – wait, keep listening. I leaf through the writings made on my first visits; I read them to myself. I change my sitting position, so that I am not sitting directly facing the headstone, this may be too confrontational. I sit alongside it, not facing the headstone and contemplate the view, from here. This perspective allows me to look out on

the world with the lichen. It seems a more intimate conversation, as with a friend.

I jot down some words, by way of thinking how to address the lichen. I want to speak to it, to acknowledge that it is vital, animated and that a co-agency exists between us. In speaking words out loud, can I, in some way, retether a relational connection between me and world? These are words for my address, to say out loud to the lichen –

*You make me a better partner in the world,
You make me patient, teaching me to live not as one, but as with.
Let our stories interweave; we are entangling together.*

Revisiting sea-fossils

In the cemetery, I close the mappings made with the lichen and walk on, to unfold the mappings made with the sea-fossils markings, at another headstone. I sit again in silence and read the writing and drawings made in earlier encounters. The persistent theme here is about durational timings.

I lay out these mappings beside the headstone for a reflection with sea fossils embedded in the headstone, entangled within the serif typeface of the chiseled letters. I am conscious of the engraver, chiselling these letters in this stone. This headstone has the date of 1811, Figure 6.08, which means these dates, names epitaphs are made about this time.

I think back to Madison's focus on the dialogic, where I have discussed her critical performative ethnography in chapter 3, holding an 'inter-animating tension between me and other' (2005, 11). I think with this idea in paying attention to deep time and the buried memory of sea-fossils, entangled with human memories, dates and names chiseled on the headstone, Figure 6.02. This attunement seems to need slowness and reverence.

Ancient creatures, embedded in stone – what do you remember of the seabed? Are you animal, memory or stone? The sea-fossils answer yes to all. I reflect and am humbled by the deep-time durations that lie between us and think, ‘thank you’ for allowing me insight to these longer temporalities. I look at the shapes and lines, entangled between chiseled type and sea-fossil shapes, the interruptions and discontinuities, seem threaded between each other. I present the mappings, as work we made together. I think back to the practices in collapsing time in the map room, where I imagine deep-time, the engraver’s chiseling this stone and me – all variances in rhythm. I acknowledge to the sea-fossil collaborators, that the shapes and lines are made between us, evolving mark-making, unfolding in our meet up. I then address out loud to the sea-fossils, as incantation –

*I touch this head-stone and I hear deep-time,
 I do not read this stone, I listen to it, its long patience.
 Sea-fossil, you are a presence to hold time within
 You are not gone, you are still becoming.
 You teach me to slow, reminding me I am held within timings.*



Figure 6.8. Revisit to the cemetery.

What happens in having these conversations

To begin with, in both these conversations, with lichen, with sea-fossils, it feels awkward; I am self-conscious. I look around the empty cemetery to make sure nobody is watching me. The conversation with lichen begins as restless and impatient. I change positions. The conversation is like a vying for attention, a switch between modes of engagement. When I speak these words out loud, at first, they come out as a whisper, hesitantly. I repeat the words again because I want to manifest that I take their more-than-human partnership, to be vital and important. I repeat the words a few times, feeling more secure in acknowledging this collaborative partnership.

There are alternate voices at play here, one is individual, rational, embarrassed and intolerant of conversations of this kind. In this mode of thinking, being and acting, there is a resistance to this form of encounter, saying 'you can't speak to the more-than-human world'. This is a voice that has a legacy in modern western thinking as I discussed in chapter 3, in relation to Michel Foucault's work on the archaeology and orderings of knowledge (2002), where schisms open between epistemes in a move towards the so-called Age of Enlightenment. Here in the cemetery, this voice says, *'stop... this is madness, you are human. Lichen and sea-fossils are insignificant and backgrounded. Modernism sets you free, out from an entangled positioning to regard more-than-human as insignificant and backgrounded'*.

There is another voice though, that can be listened in to, in my remaining silent. This unfolds as distributed between body, ground, visualities, rhythms and sound, opening out a space where agency happens in the meet up and allowing me reflect on what is an affecting intra-action, a performing between. This distributed voice is relational and polyvocal, tolerant with and between things, ideas and knowledges.

This voice knows interdependency, in not assuming control. Rather, it searches out alliances for incorporating with, as partial voice, involved with producing an alternate way of feeling and knowing. In returning to meet up with the more-than-human partners, I am acknowledging the practices within an alternative onto-epistemological space where knowing is ecological, distributed, between world and me. These conversations recognise the world is animate, relational and co-creating.

Why constituting an alternative epistemology matters.

The revisit to the cemetery, with my more-than-human research partners, reveals alternative epistemologies as a dialogic conversation. This research advocates for constituting ways of being, knowing, seeing that are sensing and listening in, in order to disrupt dominant anthropocentricity.

‘We design our world, while our world acts back on us and design us’ (Willis, 2006, 80). I started from the position outlined in chapter 1 making clear why visual communication needs an ontological design framing. While this might be thought of as only being important in reference to designing objects, technologies or buildings, I have understood that it also affects the knowledge forming and the storying that effectively make us. I have shown how visual communication design plays a role in the composition of making these knowledges and stories. The first part of chapter 2 functioned to discuss the legacy modernisms have on the structure and designing of stories we make in visual communication design. In it, such design is focused on human perspectives, limiting the stories we can live well with. I have argued that this particular type of *acting back* is taking its toll on the planet and our existence in the world, having adverse effects on the climate, biodiversity, water supply and the production of food. In these stories, we insist humans hold agency as separate and independent of nature; the dominant narrative focuses on capitalism, efficiency and the agility of markets and consumerism.

I have argued that the ordering and relationality of us to story establishes our positioning in the world. In chapter 3, I showed how Donna Haraway's formulation rings true: *'It matters what thoughts think thoughts... it matters what stories tell stories'* (2016, 12) and that Ann-Marie Willis *'acting back'* (2006, 80) effect of story makes clear that knowledge creation designs us. For visual communication design, therefore, how we position ourselves in relation to the thinking, knowledge creation and stories we make in the world, matters profoundly. As I move to the project's conclusion, I want now to articulate what unfolds from this, in the important work of making an ontologically facing visual communication design.

What happens when I let go? distributed agency – shared between.

In the revisiting of the research partners in the cemetery there was a realisation and acknowledgement that I don't hold agency, or rather that there was a distributed knowing *between*, not residing in my human brain. In these acts of drawing together, I have relinquished my human control, repositioning myself as a collaborator, co-creator. I am situated within the event-space, not outside of it. As I made clear in chapter 3, what gets altered is the *god-trick* perspective identified by Donna Haraway: *'The view from above, from nowhere, from simplicity, from objectivity'* (1988, 589). This therefore defers an onto-epistemological positioning as objective, separate and all seeing from the outside. Instead, in this gathering together, I become a partial actor within this situation, a constituted part of the system; I don't control it. This performs a letting go of control, and de-centres me and the work of design.

Design that de-centres the human-only perspective.

I have shown that ways of knowing and being for visual communication design can and should be decoupled from a human-centred design perspective. The practices in which I have engaged redefine visual language practice that serves as a correspondence with more-than-human collaboration. By so doing, other perspectives, other voices of concern, more-than-human protestations and their petitions can be partnered in

stories we tell. The transdisciplinary practices at the end of chapter 2 such as Marshmallow Laser Feast's '*Breathing with the forest*' or '*In the eye of the animal*' provided examples of practices on which I am building, practices that are widening the semiotic space for design projects by allowing in a more-than-human perspective, and seeing from another view point. Such projects manifest the theoretical discussion that I have discussed in relation to the work of Deleuze and Guattari, demonstrating a wider *transsemiotic* movement between nature-human.

'The Ecological intelligence Agency' by Superflux evidenced a partnership offering alternative perspectives with the River Roding, and designed a poetic and scientific speculative voice that is under human development pressure. This designing with an alternative voice created a shared discursive space *between*, enabling consideration of empathetic and ethical positions acknowledging a river's perspective. I learnt from these projects how introducing a polyvocality and moving from varying voices significantly affects our human positioning to the story. In the work of Yasmine Ostendorf-Rodriguez's *Becoming Fungal* (2023), discussed in the opening of chapter 3, constituting other perspectives of knowing allows being human to open out to paying attention for a relational understanding of ideas of security, control, living and dying, while thinking, making and going along with a mycelium world.

Paying attention to alternative temporalities

Design has been dominantly structured and ordered by human concepts of time, our life-span, the election cycles of politicians, our working day and its hours, minutes and productivity. In this we are impatient and inadequately account for the time necessary to attend to a relational worlding that exists in a longer horizon. I have shown that we need to listen in to other timings, and recognise the long history of the world in its deep time patience.

This question of alternative temporalities has been to the fore through my paying attention to the more-than-human world as a resonance in difference, between my rhythms and its. What I mean by this is that in listening in to the self, paying close attention to my walking, my other movements – breath, eyes moving, hands drawing, and pausing, going along in the world – it allows a tuning in to the variance in durational rhythm. In doing this, I have become open to question whether this gives me a differentiated understanding of the present. Maria Bjornerud argues for ‘a time-literate society’ (2018, p173), questioning whether this can deepen a response-ability in the world through paying attention to geological time. This draws from and speaks to the discussion of ‘*differential patterning*’ (Springgay and Truman, 2019, 75) discussed in ‘Walking as a research practice’ as a relational idea of timings, an appreciation of the variance of rhythms, that can go on to create better ways to make stories.

In thinking with other rhythms and incorporating this into how we design, I propose that we can break the privileges of only seeing from a human perspective of duration. To value variance of temporality is a way of cultivating empathy across and between the more-than-human world. The practices I have developed enable the contemplation of my rhythms and my ability to listen in to the other rhythms that I can reach out to, when seen as a relational timing. It is useful to remember again chapter 2’s discussion of Superflux’s ‘Ecological Intelligence Agency’ project shifting from a human centred short-term time horizon, to longer durational interspecies temporalities. Such designing can allow us to listen to the River Roding’s own lifespan – its ecological rhythm, seasonal cycles or its emerging futures. In the project there is no single timeline, it is felt, recorded and voiced from multiple perspectives. I argue that this is a co-imagining with the more-than-human.

Why a material-discursive turn for visual communication design

In chapter 3, in the section ‘material-discursive framing...’ I referenced a quote from Barad on ‘matter mattering’ (2007, 132). This is relevant in the need to think about the increased objectivity and separation of visual communication language – it being abstract, self-referential – which has allowed the more-than-human world to be positioned as a resource for human needs. For too long, this has been the dominant story, front and centre. My research countered this, by showing it is possible to make stories that constitute, collaborate and think as relational with an unfolding worlding. The feminist new materialist theoretical alliances I have built through Karen Barad, Donna Haraway and Jane Bennett conceptually position and operationalise the practice of stitching back together the materiality of world and its immaterial stories, memories, knowledges. The two parts of chapter 5, set out vital parts of the same thing: the actual as material engagement with place and the virtual as speculative, imagined and propositional. Materiality is an integral part in creating meaning, human cultures and language. In chapter 3 I engaged materiality as part of the discursive through examining the material-semiotic (Haraway) and material-discursive (Barad) framings. Jane Bennett’s understandings of matter as an inter-connected part of human and more-than-human living underlines an important political and ethical relationship with matter for living in the world.

In chapter 3, I outlined Franca López Barbera’s important work ‘When a tree says no’ (2023), and I draw upon it now as I conclude because she illustrates the dependency of our thinking, rituals, hopes and memories as entangled and evolving in experience, and in materiality with the world we live. If the referential between material and immaterial increasingly allows the more-than-human world to be de-animated, then a story emerges which allows trees to be solely a resource, to be deforested and cleared. She sums up the poverty, in our doing this, by giving insight into this untethering of material and discursive.

I am clear that there is no methodological umbilical cord to reconnect human with world for securely fixed ontological positioning, but we humans need lines, connections and a diagram to be drawn between ourselves and the more-than-human world, in order to make a practice as a listening-in with care and humility, acknowledging that we are part of the world we try to understand. My research has seen the visible language-ing as a constitutive practice, as partner in world-making, and as a result I have shown how visual communication design can play its part in reparation, to make these relations *between*. This is a sensing, feeling, listening and corresponding. Puig de la Bellacasa says that attending to the neglected 'can be a speculative effort to think how things could be different' (2011, 100).

Conclusion

This research informs a new positioning for visual communication design – in addressing it as a visible language that 'does' as performative in the world as active – aiding knowing and being as a visual epistemology, in a relational world.

I started out in chapter 2 by establishing a movement of visual communication design from a modernist position to it evolving as a transdisciplinary partner in the designing of communication. I did this to pose the argument that the anthropocentric positions that modernism perpetrated, outlined at the start of the chapter, has begun to give way to movements in story and knowledge making practices where human is decentred, incorporated and relational partner in the world. As the chapter progressed I identified design practices as collectives, exemplifying pathways visual communication design is part of, in making stories and knowledges as ontologically positioned. I demonstrated how transdisciplinary practices like those of Forensic Architecture, Marshmallow Laser Feast and Superflux are open and discursive in correspondence, and that in attending to reciprocity, they suggest the need for an attentiveness as a listening in.

Chapter 3's role plotted the theoretical direction I establish for visual communication design, in order for it to become ontologically focused. I drew from the artistic research work of Yasmine Ostendorf-Rodríguez, Anja Wenger and Franca López Barber by way of demonstrating why I take this particular theoretical direction for this research. Their work informed the theoretical premise I set out in chapter 3, where I established the importance of feminist new materialism, building from the writings of Jane Bennett, Donna Haraway and Karen Barad. I then discussed the dependent nature of materiality and immateriality through Franca López Barber's essay, where a tree is more than its materiality, linked to memory, ritual, imaginings and story. This framed the theoretical discussion of Karen Barad's 'material-discursive' and Donna Haraway's *making with the world* – as sympoiesis, as a situated knowing. Anya Wenger's *Fishy Architecture* informed a linking between human and more-than-human ways of knowing as continuums of wider semiotic spaces which positions probing's I made into Deleuze and Guattari's critical transsemiotic theory. This allowed me to establish the position that agency happens between things which follows my argument that humans don't hold, or own agency in world making.

Through a critical feminist new materialism, the theoretical positioning of matter mattering and agency happening in the meet up *between* informed my next questioning as I inquired where does meaning reside in this context. From here I built the second part of this theoretical premise in chapter 3, of a critical semiotic – examining perspectives in meaning making through the work of Deleuze and Guattari (2014).

These theoretical positions I establish, formed the basis in building a hybrid methodology in ways ontological visual communication design incorporates new and reappropriated methods outlined in chapter 4. I considered discipline and method in relation with designerly practices of visual communication design, questioning what methods were needed to be constituted with visual communication design. I examined the affordances of anthropology, archaeology, and ethnography, putting them into conversation with specifically designerly ways of knowing.

Anthropology was involved because it enabled me to think about relations between relations; between human, culture, artifacts, place and environment. Archaeology was incorporated, taking cues from Michel Foucault's excavations in knowledge structures in his *The Order of Things* (2004), because in reading it with design – past and presents get re-corded into futures, widening time horizons to collect and use inscriptive evidences – both material and imagined. This was then threaded into a critical ethnography that informed ways of closely paying attention as a listening in, as performative. The second part of chapter 4 focused on methods informed in these alliances between discipline for making a hybrid methodology in ontological visual communication design.

The methodology I have assembled retools visual communication as a relational, responsive and active design discipline, that allows me attend to practices that place affect, materiality, and temporality to the fore. In chapter 5 I explored alternative ways of knowing as performative and situated. I started here with a prelude – walking with my father, a divining walk that informed ideas of distributed ways of knowing through testing modes of interaction – engaging in the world where interaction becomes encounter. This involved a focus on processuality – slow walking, drawing, evidencing, writing – in a performative search that shifts ideas of knowing and storying to being relational. I argued that visual communication design too often operates as a form of capture, standing in for meaning, and through ideas of divining, walking with words, taking the graphicness of language out into the field, I shifted the static representational mode to become an active, performative process, that is contingent and embedded in the world. Designerly practices and methods of drawing, writing, and photographing constitute with walking, tracing, sensing, feeling, touching thereby widen the repertoire in what is needed to practice as an ontological visual communication designer.

For ontological visual communication design, interaction is affecting, an intra-action, knowing includes sensing, feeling is an emotional response. The research I have pursued demonstrates how entangled relations, properly distributed between human and more-than-human agency, material and place can build alternative knowledge and story as relational.

I have shown that these practices, movements, theoretical and methodological probing provide a pathway forward – can and must open new procedures for visual communication design as a visual epistemology. This research establishes tactics for designers, teachers, students, and researchers to be able to constitute visual communication design as ‘a relational dimension of life’ (Escobar, 2017, 206), for making stories in which we are partnered and entangled in the world.

Manifesting ontological visual communication design

This research provides ways of effecting a new beginning for visual communication designers. It offers a springboard from which an ontological visual communication designer can leap, into hybrid design practices where the story and knowledge creation is relational and performative in the world. In developing and testing the project's hybrid methodology that incorporates designerly methods with those used sensitively from other appropriate disciplines, a new approach and a new perspective unfolds, essential in respect of the challenges faced by human and more than human inhabitants of our shared world.

This research concludes having set out the need for and ways to become an ontological visual communication designer. The *semiotic space is open and wider* to allow in human and more-than-human meaning-making. The findings through this project have revealed how the ontological visual communication designer can listen in to the voice of the more-than-human world as incorporated. This sort of designer knows their own voice is partial in making stories and knowledges where other voices including the more-

than-human are integral and can be joined in *with*. In doing this, the designer de-centres the human position by threading in alternate ways of knowing and sensing within a designing practice; a distributed approach to knowing creates more space for polyvocal storytelling procedures, acknowledging the animated vital world. This ecological thinking supports a relational adjacency of other ways of knowing. In visual communication design practice this is seeing as a listening in with a wider semiotic space where varying partners and things act and intra-act within a system.

This ontological designer acknowledges that matter matters as a constituted part of knowing. They know we humans don't hold agency but that this is created through encounter in the world, thereby deferring the idea of human creativity or intelligence residing in a human brain. Instead this designer acknowledges the relational and distributed partnership of being and knowing in the world.

I have shown how ontological visual communication designing is *active and performative*. This designer, in making a drawing, writing, inscription, photograph, does so as a processual conversation, partaking in the to and froing of a reciprocity. To make a drawing, within an ontological design framing, is a type of correspondence, a way of listening in for more-than-human articulations. The designerly methods I have developed and tested are active, durational happenings, in knowing, seeing and being in correspondence with a more-than-human aspect of the world. I have made clear how an ontological visual communication designer is not concerned with static representation, but rather a need for visual language to be a series of performative procedures and methodology – to enact and intra-act within an ongoing-ness in the world. They learn from and focus in on Robin Kimmerer's 'grammar of animacy' (2020, 57), as a search for relational rhythms between being human and the world as always a temporal unfolding. And they take on Karen Barad's articulation of how the performative is a relational way of knowing and being in the world:

'Unlike representationalism, which positions us above or outside the world we allegedly, merely reflect on, a performative account insists on understanding thinking, observing and theorizing practices of engagements with, and as part of, the world in which we have our being' (Barad, 2007, 133).

In my research, this performative account from Barad, has been translated into designerly practice of knowing and making that moves away from ideas of the visual as solely representational to one where visibility is discursive. It defers thinking of things as static objects, formed and done and recognises that instead all things are a gathering, on the way to becoming, whether a head-stone, a cemetery, lichen: they all exist in verb status. The work of the ontological visual communication designer I have developed understands that walking is a method to support durational thinking and being, because in movement, other things unfold.

The performative and the activity of language, allows the ontological visual communication designer attend to *attunement, as a listening in*. They pay attention to their own rhythm, movements, temporality – by way of tuning into the other; to a different rhythm. Embodied attention to the self as sensing may seem counterintuitive, but I argue that to know the other we must be in tune with our own timings. Attunement to the self, in walking, stopping, sensing, allows a listening in for longer, older and deep-time temporalities.

The contribution of this research is to show that an ontological visual communication design is uniquely positioned to act not on the world, but *with* and *in*, as relational and implicated partner in the world. Through the theoretical alliances and designerly practices I have brought into relation, I have demonstrated the ways in which designers can work through a mode of knowing that is immersive, affective, and co-constitutive, a practice that acknowledges its entanglement with the world it seeks to engage and understand.

'It matters what stories make worlds, what worlds make stories'
(Haraway, 2016, 12).

Glossary of terms

designerly

This is a term used throughout this research to distinguish design knowledge from both scientific and humanistic ways of knowing, outlining that it has its own epistemological grounding. The term 'designerly' derives from Nigel Cross where he refers to how a designer uses synthesising, iterative making processes and envisioning techniques as a particular ways of knowing (Cross, 1982).

event-space

This term is used in reference to the relationship and dependent nature between happening (events) and place (space), as a field of conditions where events can emerge.

more-than-human

The phrase is attributed to David Abram (1996) in the book *The Spell of the Sensuous : Perception and Language in the More-Than-Human world*. This term references the materials and other beings beyond human perspectives.

ontological design

Ontological design is concerned with ways humans be and live in the world, through designing practice. Its significance is to think critically about the ways we link human and world together through design. Ontological design refers to the thinking about and engaging with design that affects all situations in which it is possible to embrace responsible action in the world (Fry, 1999, 29). *My particular concern in this research is how do I incorporate the more-than-human world, in respect of visual communication design, making knowledge and telling stories, creating meaning that incorporates worlding concerns.*

tool-kit

This term is used as a practical, material idea of what a tool is in the world. Heidegger's ontological position of 'hammer' and 'affordance' – how tools are not primarily understood as objects but through their use in practice (1962) informs my use of the term 'tool-kit'. I use this term as '*methodological tool-kit*' because I am doing, making, working with language, with story, with theoretical positions in a very practical, connected into the world sense. This relates to my probing of dependent material-immaterial conceptual and practice continuums in this research. Therefore it is appropriate to '*retool*' visual communication design and make a methodological '*tool-kit*'.

Language-ing

I refer to a performative language, 'language-ing throughout this research. This is

takes its cue from Heidegger's reappropriating 'thing' to its legacy etymology as a 'gathering', which I discuss in chapter 4 – 'Language is relational', so a doing in the world function. I am searching for as Robin Wall Kimmerer refers to as a 'grammar of animacy' (2020, 57), therefore it seems appropriate to 'verb' the word to 'language-ing'.

Reference list

- Abram D. (1996) *The spell of the Sensuous: perception and language in the More-Than-Human world*. Pantheon Books
- Akama, Y., Light, A., & Kamihira, T. (2020). Expanding participation to design with more-than-human concerns. *Proceedings of the 16th Participatory Design Conference 2020 – Participation(s) Otherwise*, Vol. 1, 1–11. Association for Computing Machinery. <https://doi.org/10.1145/3385010>
- Armstrong, H. (Ed.). (2009). *Graphic design theory: Readings from the field*. Princeton Architectural Press.
- Barad, K. (2007). *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Duke University Press.
- Barad, K. (2014). Diffracting diffraction: Cutting together-apart. *Parallax*, 20(3), 168–187. <https://doi.org/10.1080/13534645.2014.927623>
- Barad, K. (2022, May 12). *Re-memembering Time/s, for the time-being* [Online lecture]. Irish Museum of Modern Art (IMMA). <https://imma.ie/whats-on/karen-barad-remembering-time/>
- Barrett, E., Bolt, B. and Kontturi K-K. (2017). ‘Editorial’ ‘Studies in Material Thinking: Transversal Practices: Matter, Ecology and Relationality’ . Volume 16. Accessed April 14th 2022 from <https://materialthinking.aut.ac.nz/people/estelle-barrett-barbara-bolt-and-katve-kaisa-kontturi.html>
- Bastian, M. (2016). Towards a more-than-human participatory research. In *Participatory Research in more-than-human worlds*. 33-51 Routledge.
- van der Beek, S. (2012). From Representation to Rhizome: Open Design from a Relational Perspective. *The Design Journal*, 15:4, 423-441. DOI: 10.2752/175630612X13437472804259
- Bennett, J. (2010). *Vibrant Matter: A Political Ecology of Things*. Duke University Press.
- Berger, J., & British Broadcasting Corporation. (1972). *Ways of seeing*: Based on the television series with John Berger. British Broadcasting Corporation.
- Bergson, H. (1889). From Time and Free Will – the idea of duration. in Pearson, K. A. and Mullarkey, J. (eds) *Key Writings, Henri Bergson*. 49–78. Continuum.
- Binder, T., De Michelis G., Ehn, P., Jacucci, G., Linde, P. & Wagner, I. (2011). *Design Things*. MIT Press.
- Björgvinsson, E., Ehn P., & Hillgren P-A. (2010, November) Participatory design and “democratising innovation”. In *Proceedings of the 11th Biennial participatory design conference* 41-50. <https://doi.org/10.1145/1900441.1900448>
- Björgvinsson, E., Ehn, P., & Hillgren, P-A. (2010, November). Participatory design and “democratising innovation.” In *Proceedings of the 11th Biennial Participatory Design Conference* (pp. 41–50). <https://doi.org/10.1145/1900441.1900448>

- Björgvinsson, E., Ehn P. & Hillgren P-A (2012a). Agonistic participatory design: working with marginalised social movements. *Co-design* 8, 2-3, 127-144. <https://doi.org/10.1080/15710882.2012.672577>
- Björgvinsson, E., Ehn, P. and Hillgren, P-A. (2012b). 'Design Things and Design Thinking: Contemporary Participatory Design Challenges.' *Design Issues*, 28(3), 101–116. <http://www.jstor.org/stable/23273842>
- Bjourerud M (2018) *Timefulness: How Thinking Like a Geologist Can Help Save the World*. Princeton university Press.
- Blauvelt, A. (1994) An Opening: Graphic Design's Discursive Spaces. *Visible Language* 28:3. 205-217.
- Blei, D. (2017). How the Index Card Catalogued the World. accessed 14/11/22 from <https://www.theatlantic.com/technology/archive/2017/12/how-the-index-card-catalogued-the-world/547271/>
- Braidotti, R. (2019) *Posthuman Knowledge*: Polity Press.
- Bonneuil, C., & Fressoz, J.-B. (2016). *The Shock of the Anthropocene: The Earth, history and us* (D. Fernbach, Trans.). Verso.
- Bringhurst, R (1996). *The Elements of Typographic Style*. Hartey & Marks.
- Burke, C., Kindel, E., & Walker, S. (2013). *Isotype: Design and contexts 1925-1971*. Hyphen.
- Cage, J. (1960). *Fontana Mix*. Hebmar Press.
- Campbell, I. (2019). Deleuze and Guattari's Semiorhythmology: A Sketch for a Rhythmic Theory of Signs. *La Deleuziana*, 10, 351-370.
- Clarke, A. J. (2018). *Design Anthropology: Object Cultures in Transition* (Second ed.) Bloomsbury Academic.
- Collis, S. (2017). Drew Milne's Marxist lichens. accessed 18/03/19 from <https://jacket2.org/commentary/drew-milnes-marxist-lichens>
- Crawford, K. & Joler, V. (2018). Anatomy of an AI System: The Amazon Echo As An Anatomical Map of Human Labor, Data and Planetary Resources," *AI Now Institute and Share Lab*, <https://anatomyof.ai>
- Cross N. (1982). Designerly Ways of Knowing, *Design Studies*, 3(4), p221-227. DOI: [10.1016/0142-694X\(82\)90040-0](https://doi.org/10.1016/0142-694X(82)90040-0)
- Crow, D. (2016). *Visible Signs: an Introduction to Semiotics in the Visual Arts*. Fairchild Books.
- Davis, M. (2012). *Graphic Design Theory*. Thames and Hudson.
- Davis, M., Hunt, J. (2017). *Visual Communication Design: An Introduction to Design Concepts in Everyday Experience*. Bloomsbury.
- Demos, T. J. (2016). *Decolonizing Nature, Contemporary Art and the Politics of Ecology*. Sternberg Press.

- Denzin, N. K. (1997). *Interpretive Ethnography: Ethnographic Practices for the 21st Century*. Sage Publications.
- Denzin, N. K. and Lincoln, Y. S (2011). *The Sage Handbook of Qualitative Research*. 4th ed. Thousand Oaks: Sage.
- Dilnot, C. (2015). The matter of design, *Design Philosophy Papers*, Vol. 13, no. 2, 115–123. DOI: [10.1080/14487136.2015.1133137](https://doi.org/10.1080/14487136.2015.1133137)
- Deleuze, G. (2004). *Difference and Repetition*. (Patton, P., Trans) Continuum.
- Deleuze, G. & Guattari, F. (2014). *A Thousand Plateaus* (Massumi, B. Trans) Bloomsbury. (Original work published 1988).
- Dondis, D. A. (1973). *A Primer for Visual Literacy*. M.I.T. Press.
- Drucker, J., McVarish, E. (2009). *Graphic Design History: A Critical Guide*. Pearson Prentice Hall.
- Drucker, J. (2011). Humanities approaches to Interface Culture. *Culture Machine*, 12, 1-20.
- Drucker, J. (2013). Performative Materiality and Theoretical Approaches to Interface. *Digital Humanities Quarterly*, Vol 7, no.1.
- Drucker, J. (2014). *Graphesis: Visual Forms of Knowledge Production*. Harvard University Press.
- Dunne, A. & Raby, F. (2013). *Speculative everything: Design, fiction, and social dreaming*. The MIT Press.
- Ehn, P. (1988). Playing Language Games of Design and use on skill and Participation. <https://dl.acm.org/doi/10.1145/45410.45426>
- Ehn, P. (2008). Participation in Design Things. In *Participatory Design Conference (PDC)*, 92-101. Accessed 25th June 2022 from <https://dl.acm.org/doi/10.5555/1795234.1795248>
- Ehn, P. (2011). Design Things: Drawing Things Together and Making Things Public. *Tecnoscienza: Italian Journal of Science and Technology Studies*. Vol 2(1) 31-52.
- Ehn, P., Nilsson, E. M. and Topgaard, R. (2014). *Making Futures: Marginal Notes on Innovation, Design, and Democracy*. MIT Press.
- Ember, C. R., & Ember, M. (1996). *anthropology* (8th ed.). Prentice Hall
- Escobar, A. (2017). Stirring the Anthropological Imagination, Ontological Design in Spaces of Transition. In Clarke, A. J. (ed) *Design Anthropology: Object Cultures in Transition*. Bloomsbury. 201-216.
- Escobar, A. (2017). *Designs for the Pluriverse: Radical interdependence, Autonomy, and the making of worlds*. Duke University Press.
- Escobar, A. Osterweil M., Sharma K,. (2024). *Rationality, an emergent Politics of Life Beyond the Human*. Bloomsbury.

- Freire, P. (1983). The Importance of the Act of Reading. The Journal of Education. Winter, Vol.165, pp 5-11.
- Foucault, M. (2002). The Order of Things: An Archaeology of the Human Sciences. Routledge. (Original work published 1970).
- Forensic Architecture. (n.d.) Who we are. Retrieved 10/04/24 from <https://forensic-architecture.org/about/agency>
- Frascara, J. (2004). Communication Design: Principles, Methods and Practice. Allworth Press.
- Fry, T. (1999) Design as an Ontological Question. In Willis A. M. (Ed.) The Design Philosophy Reader. Bloomsbury 27-29.
- Fry, T. (2012). Becoming Human by Design. Berg Publishers.
- Fry, T. (2004). 'The Voice of Sustainment: Design ethics as futuring, Design Philosophy Papers, 2:2, 145-156
<http://dx.doi.org/10.2752/144871304X13966215068038>
- Gabrys, J. (2018). Sensing Lichens, from ecological microcosms to environmental subjects. Third Text, 32: 2-3, 350 – 367.
DOI: 10.1080/09528822.2018.1483884
- Gatt, C., & Ingold, T. (2013). From description to correspondence: Anthropology in real time. In W. Gunn, T. Otto, & R. C. Smith (Eds.), *Design anthropology: Theory and practice* (pp. 139–158). Routledge.
- Gregory, J. (2003). Scandinavian approaches to participatory design. International Journal of Engineering Education. 19.1, 62-74.
- Greiman A. (1986). Does it make Sense? In Design Quarterly #133, Special Issue.
- Gunn, W., Otto T., Smith R.C. eds. (2013). Design Anthropology Theory and Practices. Bloomsbury Academic.
- Guattari, F. (2014). The Three Ecologies, .(Pindar I. & Sutton P., Trans) Bloomsbury. (1st Pub 1989)
- Grosz, E. (2005). Time Travels: Feminism, Nature, Power. Duke University Press.
- Gwilt, I. and Williams J. (2011) Framing futures for visual communication design research. Design Principles and Practices: An International Journal — Annual Review 5 (5): 81-98.
- Halpern, O. (2014). Beautiful Data: A History of Vision and Reason since 1945. Duke University Press.
- Haraway, D. J.(1988). Situated Knowledges, Feminist Studies, vol 14, no. 3. 575 – 599. <https://doi.org/10.2307/3178066>
- Haraway D. J. (1991). Simians, Cyborgs and Women: The Reinvention of Nature. Free Association Books.
- Haraway, D. J. (2016). Staying with the Trouble: Making kin in the Chthulucene. Duke University Press.

- Hayles, N. K. (2006). Unfinished Work from Cyborg to Cognisphere. *Theory, Culture and Society* 23 (7-8) 159-166.
<https://doi.org/10.1177/0263276406069229>
- Heaney S. (1966). The diviner. in *Death of a naturalist*. Faber and Faber.
- Heemsbergen, L., Bowtell, G., & Vincent, J. (2021). Conceptualising Augmented Reality: From virtual divides to mediated dynamics. *Convergence*, 27(3), 830–846. <https://doi.org/10.1177/1354856521989514>
- Heddon, D. (2017) the cultivation of Entangled Listening.
DOI: [10.1057/978-1-137-39318-0_2](https://doi.org/10.1057/978-1-137-39318-0_2)
- Heidegger, M. (1962) *Being and Time*, (Macquarrie J. and Robinson E. trans) Oxford: Blackwell.
- Heidegger, M. (1971) 'The Thing'. In Willis A.(ed) *The Design Philosophy Reader*, Bloomsbury. pp 143-148
- Hirshfield, J. (2011). For the Lichens. *The Atlantic*. Accessed 16/04/2021 from <https://www.theatlantic.com/magazine/archive/2011/04/for-the-lichens/308411/>
- IPCC. (2023). *Climate Change 2023: Synthesis Report*. Intergovernmental Panel on Climate Change. <https://doi.org/10.59327/IPCC/AR6-9789291691647>
- Ingold, T and Vergunst J L eds. (2008). *Ways of Walking: Ethnography and Practice on Foot*. Ashgate.
- Ingold, T. (2010). The textility of making. *Cambridge Journal of Economics*, Volume 34, Issue 1, 91–102. <https://doi.org/10.1093/cje/bep042>
- Ingold, T. (2011). *Being Alive: Essays on movement, knowledge and description*. Routledge.
- Ingold, T. (2013). *Making: Anthropology, Archaeology, Art and Architecture*. Routledge.
- Irish Times, (2022). Failing to get the message, editorial, Saturday 7th May, <https://www.irishtimes.com/opinion/editorial/the-irish-times-view-on-the-destruction-of-ecosystems-failing-to-get-the-message-1.4871520> accessed 17/07/22
- Kelly, V. (2016). Culture-practice-discourse: A theoretical framework for a critical approach to communication design. *Studies in Material Thinking*, Volume 15. Accessed 19/04/22 from <https://materialthinking.aut.ac.nz/papers/232.html>
- Kepes, G. (1969). *Language of Vision*. Theobald.
- Kester, G. H. (1997). Aesthetics after the End of Art: An interview with Susan Buck-Morss. *Art Journal* vol.56: Issue 1, 38-45. <https://doi.org/10.2307/777785>
- Kester, G. H. (2004). *Conversation Pieces: Community and Communication in Modern Art*. University of California Press.
- Kimmerer, R. W. (2013). *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants*. Penguin Books.

- Koolhaas, R., Mau, B., Sigler, J., Werlemann, H., & Office for Metropolitan Architecture. (1998). S, M, L, XL: Small, medium, large, extra-large (2nd ed.). Monacelli Press
- Latour, B. (1986). Visualisation and Cognition: Thinking with Eyes and Hands.' In Knowledge and Society: Studies in the Sociology of Culture Past and Present. Vol.6, 1-40.
- Latour, B. (2005). From Realpolitik to Dingpolitik or How to Make Things Public. In Latour, B. & Weibel, P. Making Things Public: Atmospheres of Democracy. Catalogue of the show at ZKM, MIT Press.
- Latour, B. (2015) 'Visualisation and Cognition: Drawing Things Together' in Kuklick, H. (editor) Knowledge and Society: Studies in the Sociology of Culture Past and Present. Jai Press vol. 6, pp. 1-40 accessed 15th December 2016 from <http://www.bruno-latour.fr/sites/default/files/21-DRAWING-THINGS-TOGETHER-GB.pdf>
- Laudan, J. R. (1984). The British Lichen Society. accessed 14th September 2022. <https://britishlichensociety.org.uk/resources/species-accounts/caloplaca-flavescens>
- Lee, D. (2018). Experimental mapping in archaeology: Process, practice and archaeologies of the moment. In Re-Mapping Archaeology. 143-176. Routledge.
- Levrant de Bretteville, S (1973) Icongraphic, 6, (p 4-8), accessed 17/06/23. https://www.theicod.org/storage/app/media/resources/Publications/Icographic/Icographic_Publications_Icographic_06_full.pdf
- López Barbera, F. (2021). When a tree says no. Accessed 10/08/2022. <https://futuress.org/stories/when-a-tree-says-no/>
- Lupton, E. and Levrant de Bretteville, S. (1993). Reputations: Sheila Levrant de Bretteville.' Eye Magazine, no 8 vol 2. <https://www.eyemagazine.com/feature/article/reputations-sheila-levrant-de-bretteville> Accessed 17/10/22
- Lupton, E. and Abbot Miller, J. (1996a). Design, writing, research: Writing on Graphic Design (1st ed.). New York: Kiosk.
- Lupton, E. (1996b). Mixing Messages: Graphic Design and Contemporary Culture. Thames & Hudson
- Lupton, E. and Cole-Phillips, J. (2008). Graphic Design: The New Basics. Princeton Architectural Press.
- Lupton, E. (2009). Critical Wayfinding. accessed 16/07/2019 from <http://elupton.com/2009/10/critical-wayfinding/>
- Madison, S.D. (2012) Critical Ethnography: Method, Ethics and Performance. Sage.
- Magan, M. (2020). Thirty-Two Words for Field: Lost Words of the Irish Landscape. Gill Press.
- Manning, E. (2016). The Minor Gesture. Duke University Press.
- Marshmallow Laser Feast (n.d.) <https://marshmallowlaserfeast.com>

- Moretti, C. (2011). The Wandering Ethnographer: Researching and Representing the City through Everyday Encounters. *Anthropologica*, 53, 2, 245-255.
- Massey, D. (2005). *For Space*. Sage
- Meggs, P. (2016). 6th ed. *Meggs' History of Graphic Design*. John Wiley & Sons.
- Mermoz, M. (2006). The Designer as Author: Reading the City of Signs. *Design Issues*. Vol 22, no 2. 77 – 87.
- Morrison, A. (2011). ed. *Inside multimodal composition*. Hampton.
- Neild T. (2014) *Underlands: A Journey Through Britain's Lost Landscape*: Granta.
- Oliveros, P. (1971). *Sonic Meditations*. Smith Publications, American Music.
- Osborne, G. (2019) *Plant Poetics and Beyond: Lichen Writing*. *Entropy*. accessed March 18th 2021 from <https://entropymag.org/plant-poetics-and-beyond-lichen-writing/>
- Ong, W. J. (2002). *Orality and Literacy: the Technologizing of the Word*. London: Routledge.
- Ostendorf-Rodríguez Y. (2023). *Let's Become Fungal*. Valiz.
- Oxford English Dictionary, OED Online, (n.d.) <https://www.oed.com/> Oxford University Press.
- Parikka, J. (2019). *Cartographies of Environmental Arts*, In Braidotti R. & Bignall S.(Eds), *Posthuman Ecologies: Complexity and Process after Deleuze*, 41-60. Rowman and Littlefield.
- Pickering, A. (1995). *The Mangle of Practice*. University of Chicago Press.
- Pringle, A. (2013, January 1). Studying seemingly immortal lichens, in a place for the dead. *New York Times*. Retrieved July 6th, 2022, from <https://www.nytimes.com/2013/01/01/science/studying-seemingly-immortal-lichens-in-a-place-for-the-dead.html#:~:text=Pringle%20held%20up%20a%20transparent,old%20friends%2C%E2%80%9D%20she%20said.>
- Puig de la Bellacasa, M. (2011). Matters of Care in Technoscience: Assembling Neglected Things. In *Social Studies of Science* 41 (1) 85-106.
- Rancière, J. (2006). *The Politics of Aesthetics*, (translated Rockhill, G). Continuum.
- Robinson, T. (1975) *Oileann Arann: a map of the Aran islands in Galway Éire*. Kilronan.
- Ruder, E. (1982). *Typographie: Typography* ([4th rev.]. ed.). A. Niggli.
- Saito, Y. (2022). *Aesthetics of Care: Practice in Everyday Life*. Bloomsbury.
- Salazar, J. F., Pink, S., Irving, A. and Sjöberg, J. (2017). *Anthropologies and Futures: Researching Emerging and Uncertain Worlds*, Bloomsbury.

- Sanders, E. (2006) Scaffolds for Building Everyday Creativity. In Design for Effective Communications: Creating Contexts for Clarity and Meaning. Allworth Press.
- Scheuermann, Arne (2019). *Graphic design as rhetoric: towards a new framework for theory and practice in graphic design* In: Atzmon, Leslie; Triggs, Teal (eds.) The Graphic Design Reader (pp. 441-448). London: Bloomsbury
- Schraffenberger, H, van der Heid E (2016) Multimodal augmented reality: the norm rather than the exception.' MVAR '16 Article No. : 1. 1–6. Retrieved June 7th 2022, from <https://doi.org/10.1145/3001959.3001960>
- Schön, D. A. (1991). The reflective practitioner: How professionals think in action. Arena, Ashgate. <https://doi.org/10.4324/9781315237473>
- Smith, R. C., Vangkilde, K. T., Kjærsgaard, M. G., Otto, T., Halse, J. and Binder, T. (2016). Design Anthropological Futures. Bloomsbury Academic.
- Springgay, S. and Zaliwska, Z., (2015). Diagrams and Cuts: A Materialist Approach to Research-Creation. Cultural Studies, 15(2), 136–144. <https://doi.org/10.1177/1532708614562881>
- Springgay, S. & Truman S.E., (2016). Stone Walks: Inhuman Animacies and Queer Archives of Feeling. Discourse: Studies in the Cultural Politics of Education. 851–863. <http://dx.doi.org/10.1080/01596306.2016.1226777>
- Springgay S. & Truman S E., (2019). Walking Methodologies in a more-than-human world: WalkingLab. Routledge.
- Suchman, Lucy. (2011). Anthropological Relocations and the Limits of Design. Annual Review of Anthropology. 40. 10.1146/annurev.anthro.041608.105640.
- Superflux (n.d.) <https://superflux.in/index.php>
- Steane, J. (2013). Principles and Processes of interaction Design. Bloomsburg Academic.
- Stjernfelt, F. (2000). Diagrams as Centrepiece of a Peircean Epistemology. Transactions of the Charles S. Peirce Society, 36(3), 357–384. <http://www.jstor.org/stable/40320800>.
- Strathern M. (1995). The Relation: Issues in Complexity and Scale. Prickly Pear Press.
- Swanson, G (1994). 'Graphic design education as a liberal art: Design and knowledge in the university of the "real world"'. Design Issues. Vol. 10, No.1, pp 53–63
- Thrift, N. (2006). Space. Theory, Culture & Society, 23(2–3), 139–146. <https://doi.org/10.1177/0263276406063780>
- Tsing, A. L. (2015). The Mushroom at the end of the World. Princeton University Press.
- van Toorn, J. (1994). Design and reflexivity. Visible Language, 28(4), 316-322.
- van Toorn, J. (2010). A passion for the real. Design Issues, 26(4), 45-56.

- Warne, K. (2007). Organization Man, Carl Linnaeus...brought order to nature's blooming, buzzing confusion.' Smithsonian Magazine. Retrieved December 6th, 2022 from <https://www.smithsonianmag.com/science-nature/organization-man-151908042/>
- Waters, J. L., Cardew C., Philips T. (1997). Sound, Code, Image. Eye Magazine no.26, vol.7. Retrieved August, 27th 2021 from <https://www.eyemagazine.com/feature/article/sound-code-image>
- Wegner A (2024). Interspecies co-creation: a story of a Fish – human conversation, with Anja Wegner. Rachel Carson Centre. <https://www.youtube.com/watch?v=ywnEyO9j9iY>
Accessed June 24.
- Wegner A., SUPERFLEX and Jordan A. (2021). Fish Architecture: A framework to create Interspecies Spaces. <http://dx.doi.org/10.14236/ewic/POM2021.24>
- Willis, A. (2006). Ontological Designing. Design Philosophy Papers, 4:2, 69-92, DOI: [10.2752/144871306X13966268131514](https://doi.org/10.2752/144871306X13966268131514)
- Willis, A. ed (2019). The Design Philosophy Reader. Bloomsbury.
- Yong, E. (2019, January 17). The Overlooked Organisms That Keep Challenging Our Assumptions About Life. The Atlantic. Retrieved June, 20th, 2019 from <https://www.theatlantic.com/science/archive/2019/01/how-lichens-explain-and-re-explain-world/580681/>

Appendix

Appendix as Visual Epistemology

The appendix consolidates key visual elements into three large-format pages, enabling a processual and spatial reading – a **visual epistemology** – that situates the practices in proximity and relation to one another. Each visual is marked with its corresponding figure number from the main text, allowing for easy navigation and cross-reference. The purpose of this appendix is to provide a visual narrative that illustrates the evolution of the design practices and their alignment with the theoretical positioning explored throughout the thesis.

Appendix 1 – Meet-Up Cards

This appendix traces the visual development between theoretical positions – such as interaction, intra-action, and the material-discursive – and the emergence of cataloguing as an ecological design practice – underpinning the formation of the *Meet-Up Cards*. The page should be read from left to right, beginning at the top-left corner. On the left, the development of theoretical positions in new materialism is charted; on the right, these positions are enacted and tested through design responses.

Appendix 2 – Actual–Virtual: Map Rooms

This section visualises how walking, documenting, and seeing informed the creation of the *Map Room*. The left side of the page contains material gathered during walks – drawings, photographs, and visual notes – the evidence related to actually being in a place. On the right, the function of the map room is explored: as a site of entanglement, projection, and disjunctive rejoining of human and more-than-human inscriptions –

exploring imaging, possible ideas of virtual. The visual layout offers insight into how mapping becomes a dynamic, ontological tool.

Appendix 3 – Incipient Cartographies

This final appendix shows the cartographic process used in revisiting the cemetery site. On the left are the four *Archaeologies of Encounter* maps, documenting the act of walking. These serve as ‘actual’ practices. As the eye moves right, these develop into *incipient mappings* – visualisations that propose a becoming, a speculative re-engagement with the site. The final segment charts a re-encounter, acknowledging the more-than-human as a co-constituent in meaning-making.

Together, these appendices offer a relational visual reading that draws a line between conceptual and theoretical framings and what visibility and practice *do* in the context of ontologically-oriented visual communication design.

APPENDIX 1. Meet up cards

Lorem ipsum

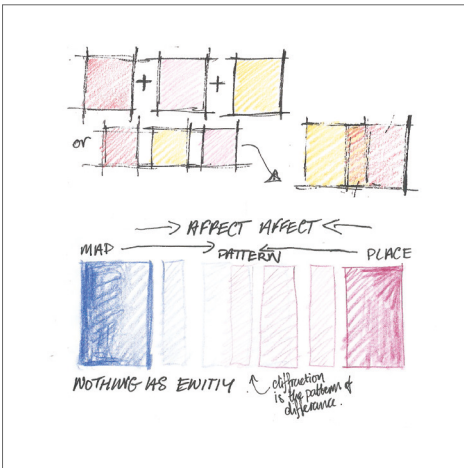


Fig.5.14

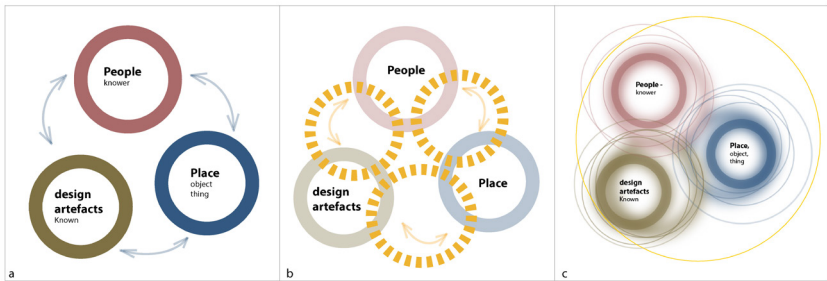


Fig.3.13

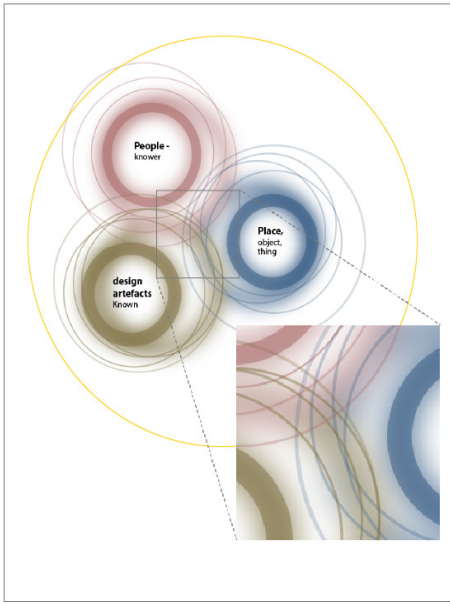


Fig.4.23

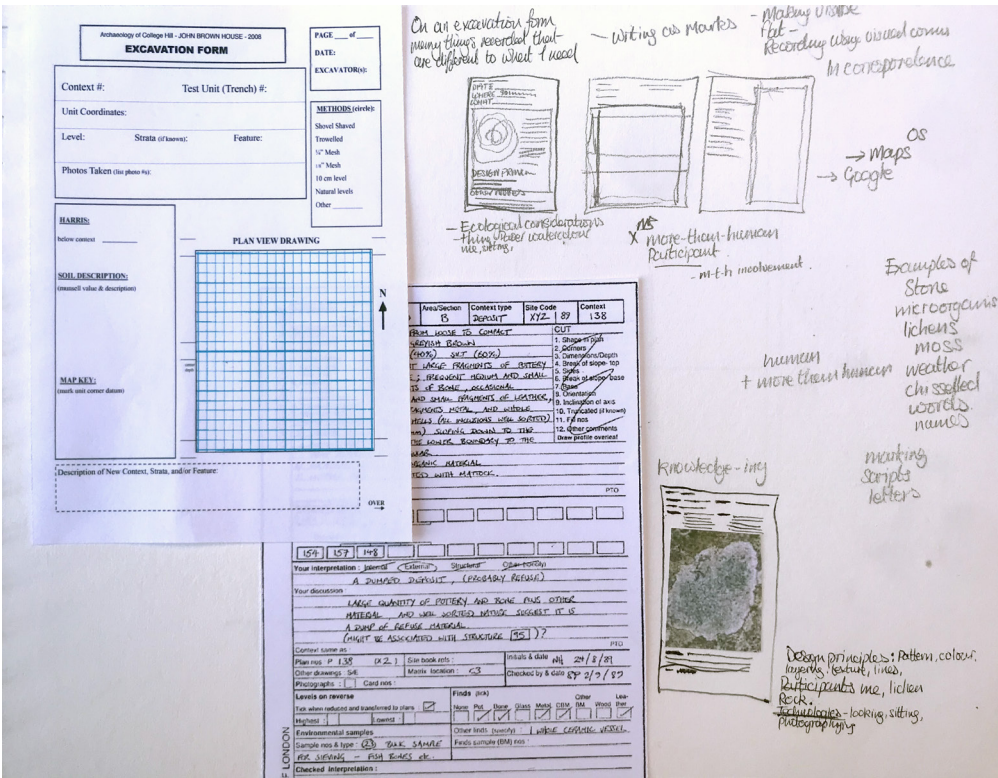


Fig.4.20

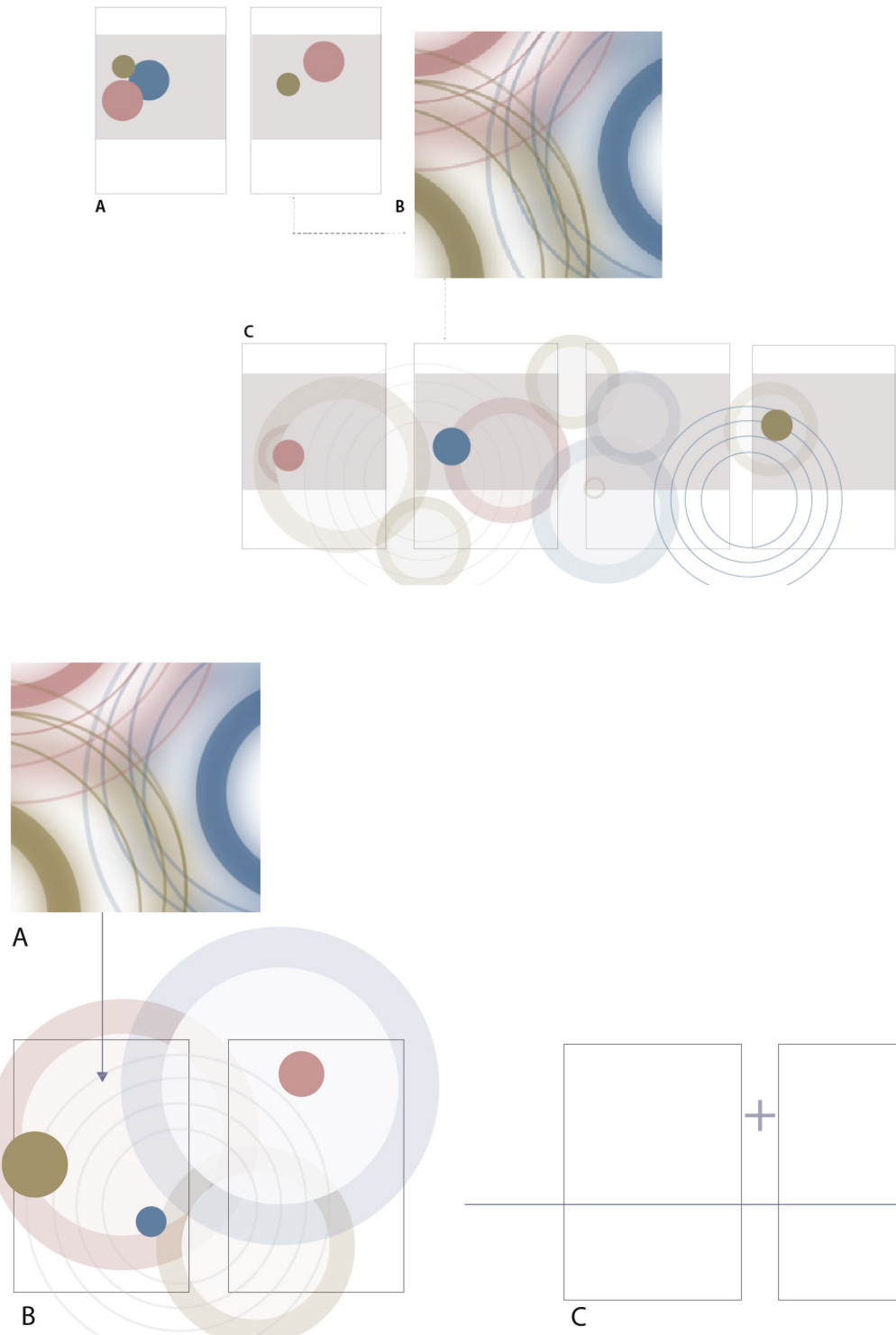
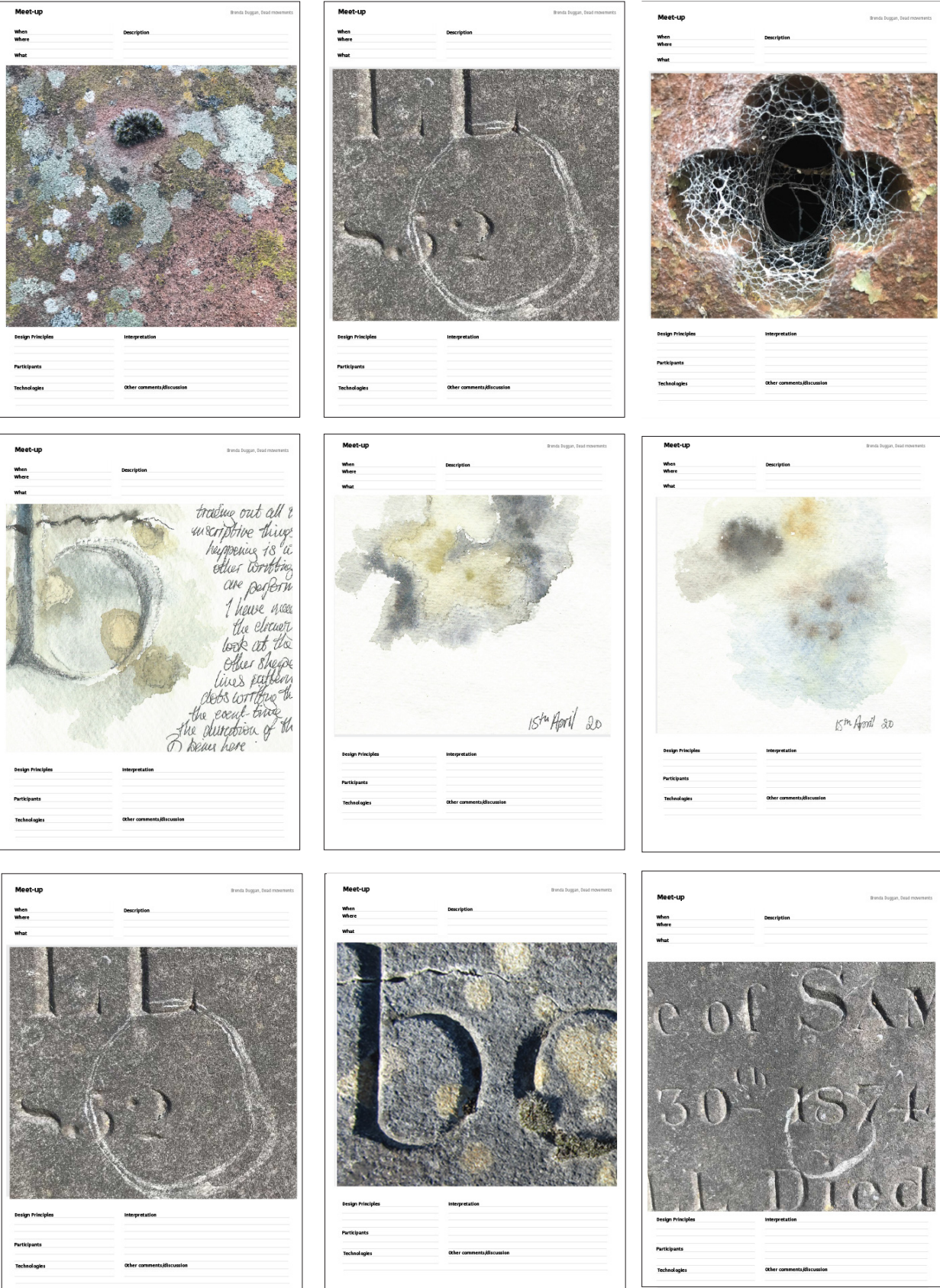


Fig.5.21

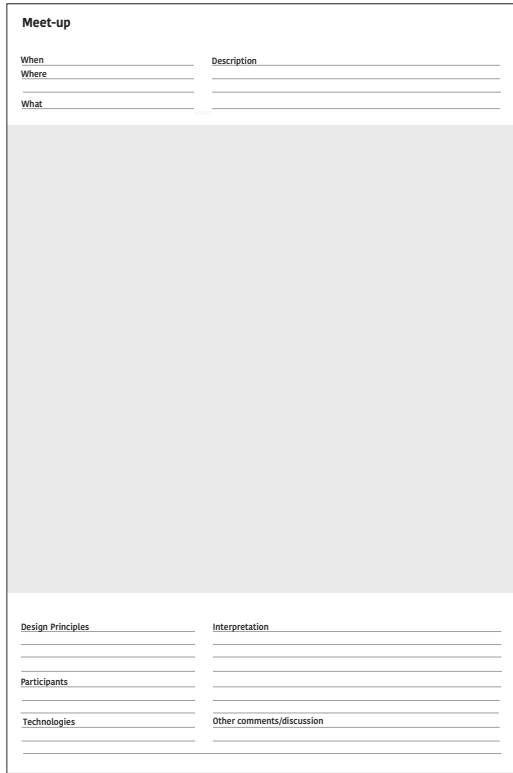


Fig.4.22



Fig.5.20



Fig.5.11



Fig.5.12

APPENDIX 2. Actual – virtual; maprooms

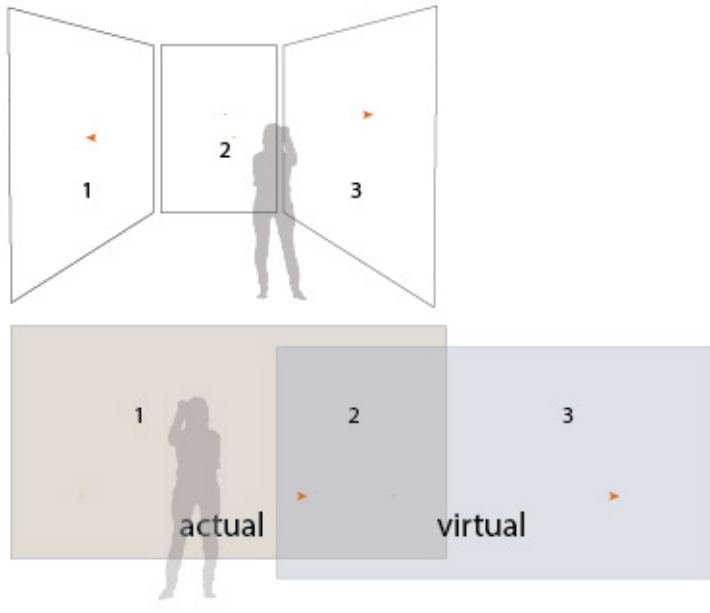


Fig.5.15



Fig.5.16

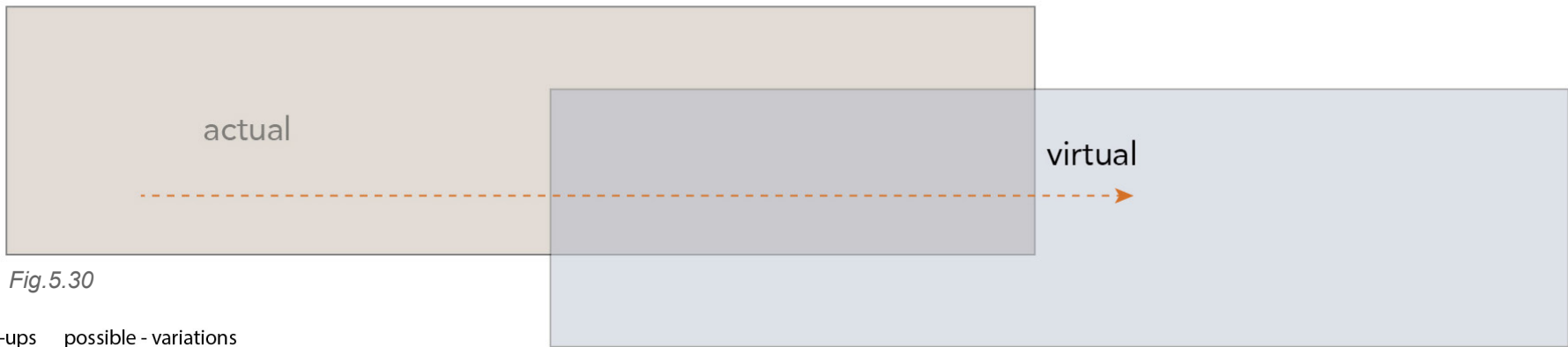


Fig.5.30



Fig.5.17



Fig.5.19

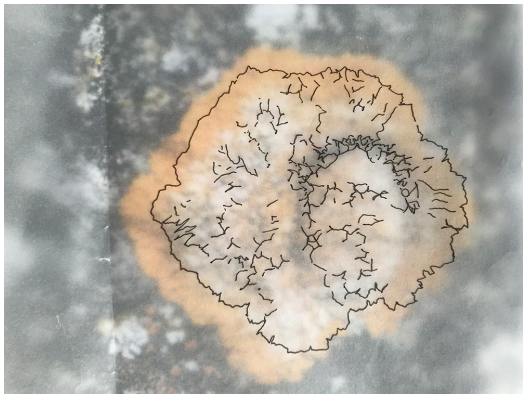


Fig.5.20

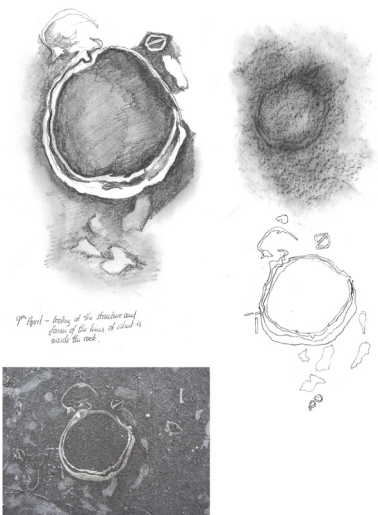


Fig.5.05



Fig.5.25

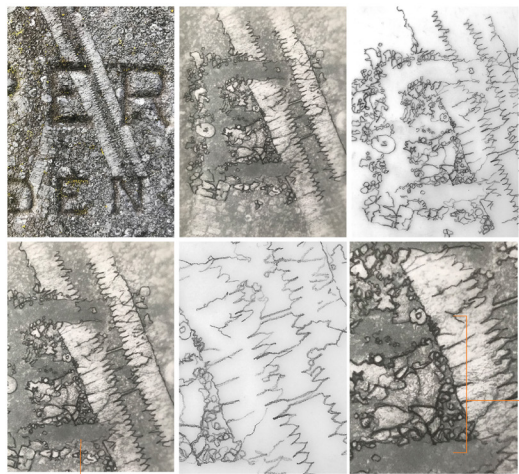


Fig.5.24



Fig.5.28



Fig.5.25

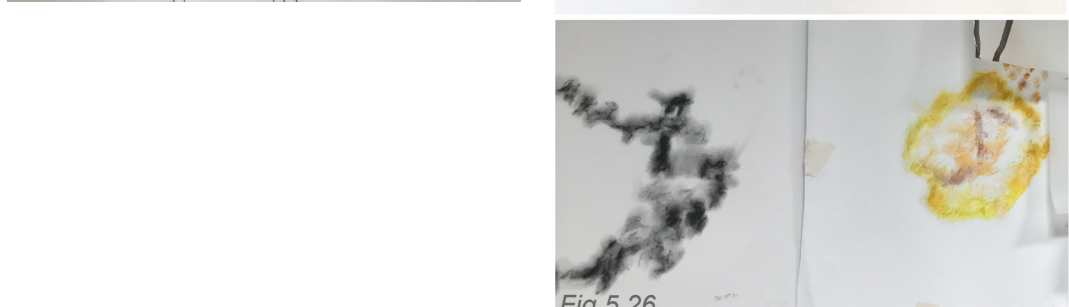
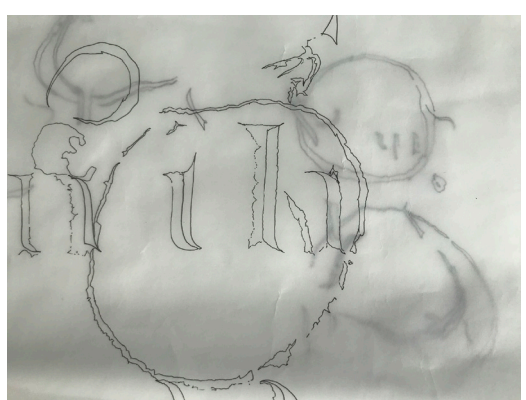
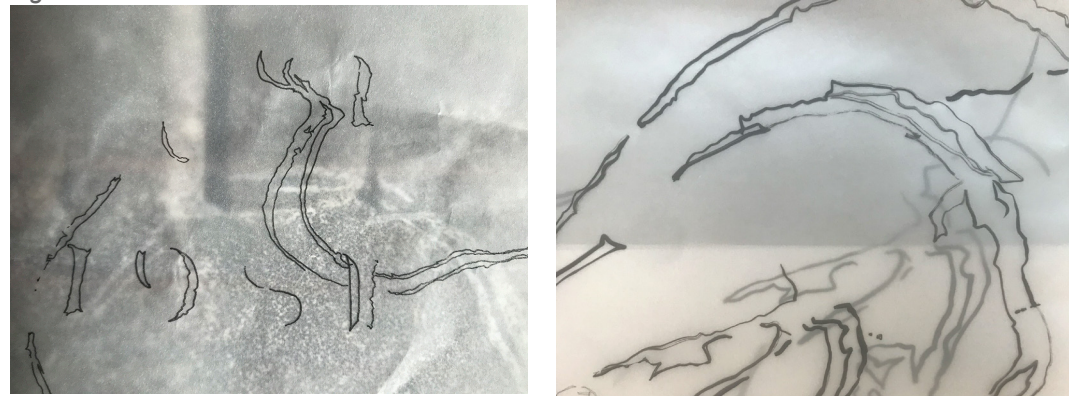


Fig.5.26



Fig.5.18

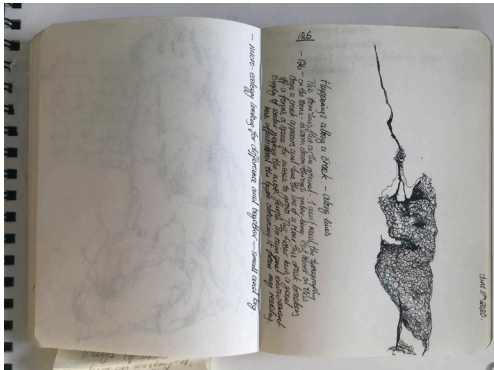


Fig.4.04

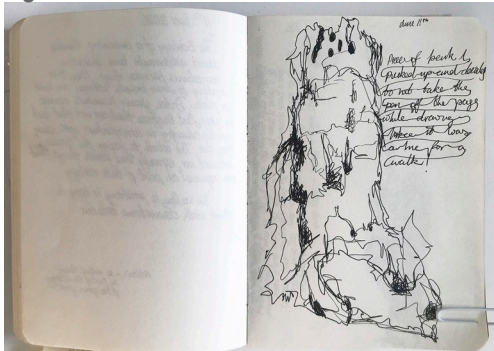


Fig.4.05



Fig.5.06



Fig.4.06

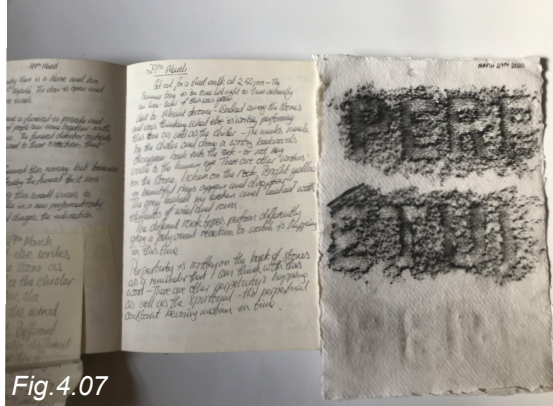


Fig.4.07

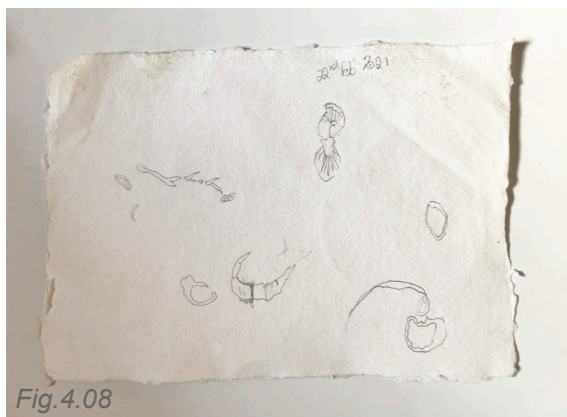
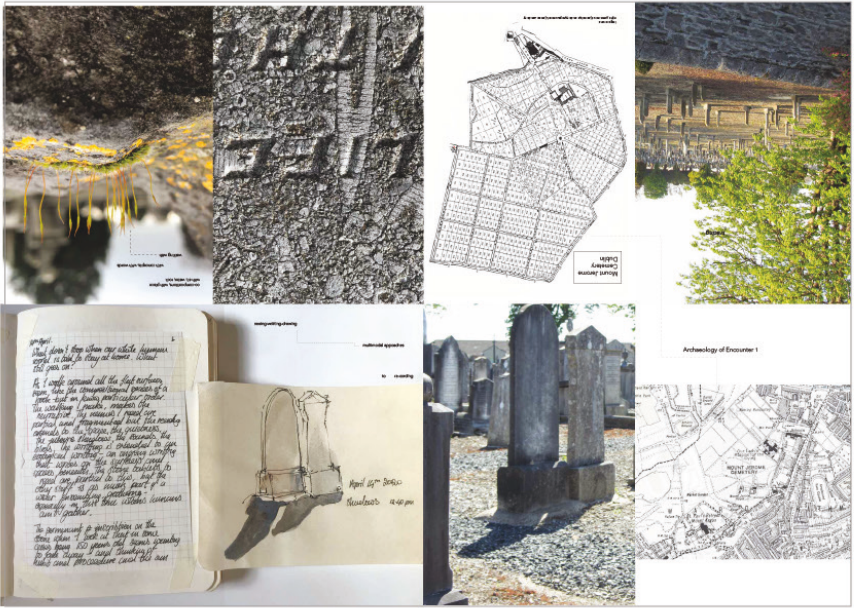


Fig.4.08

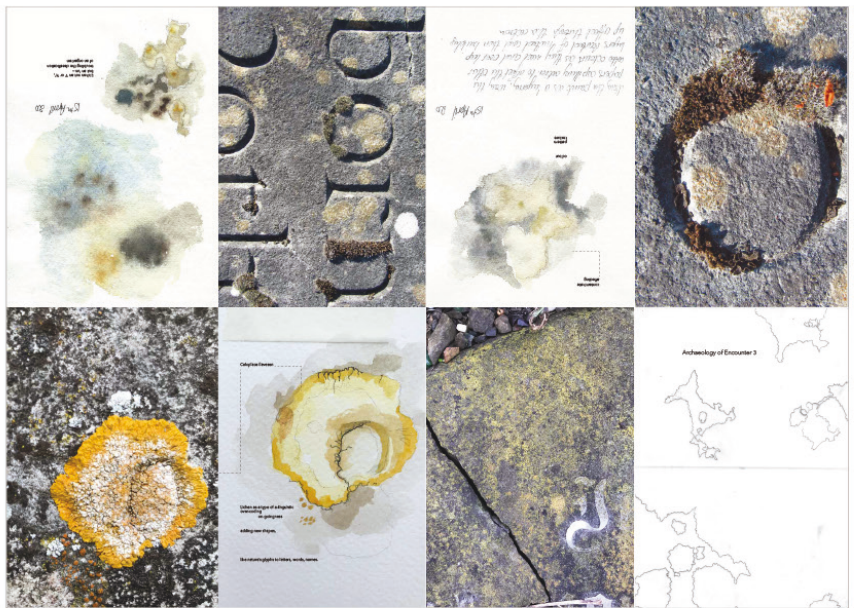
APPENDIX 3. Incipient cartographies



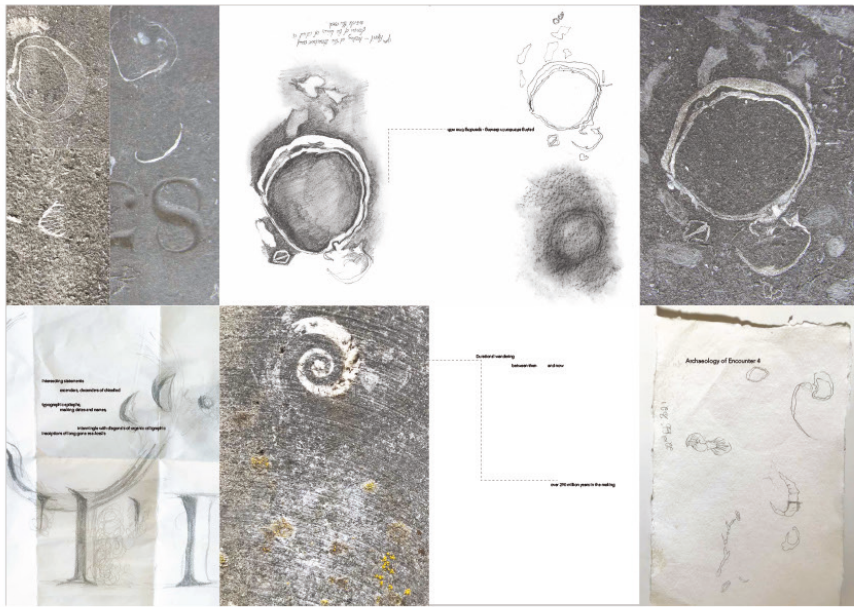
Archaeology of Encounter (AE)



AE 2



AE 3



AE 4

Fig. 5.30



Fig. 5.30

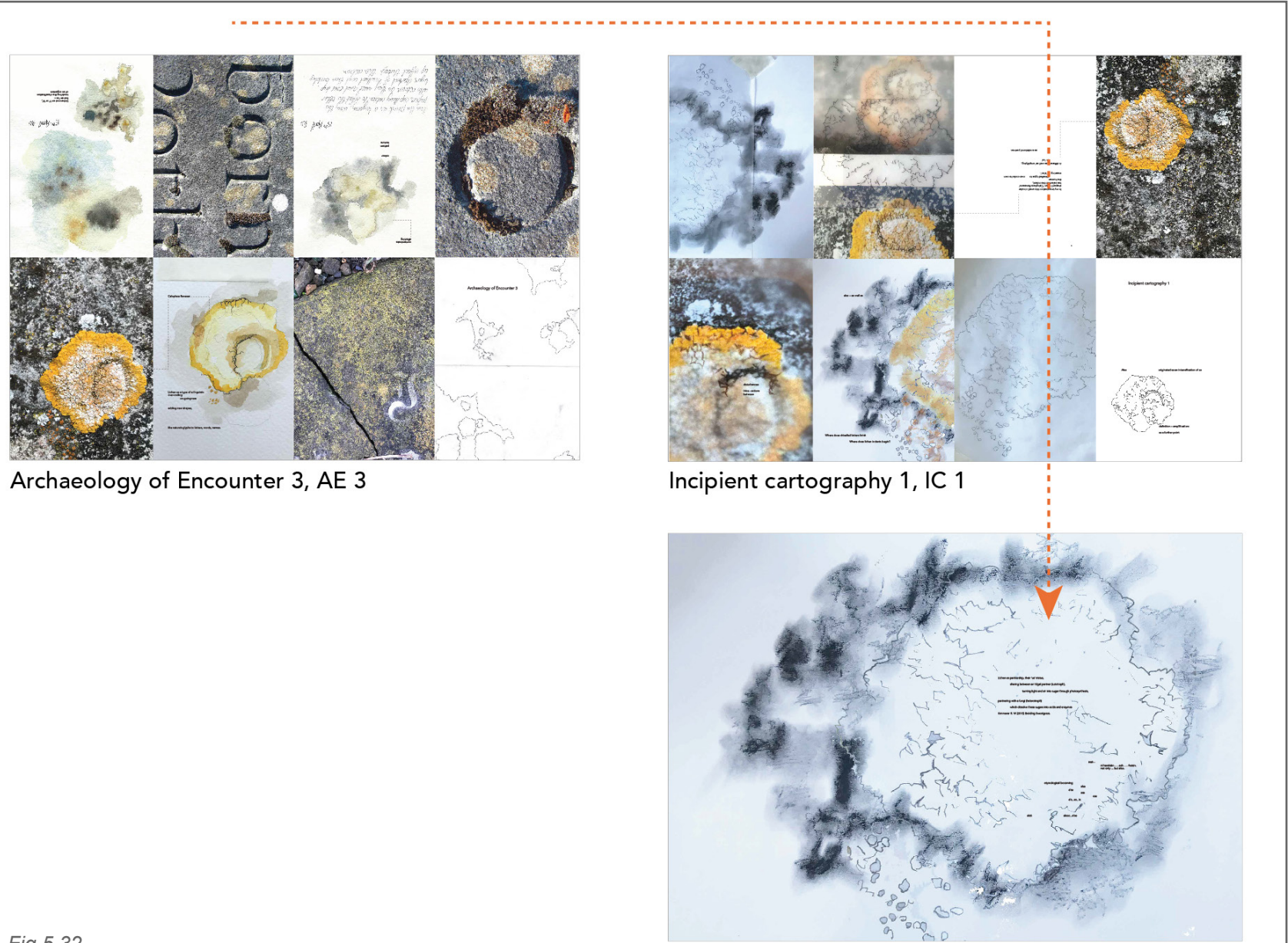


Fig. 5.32

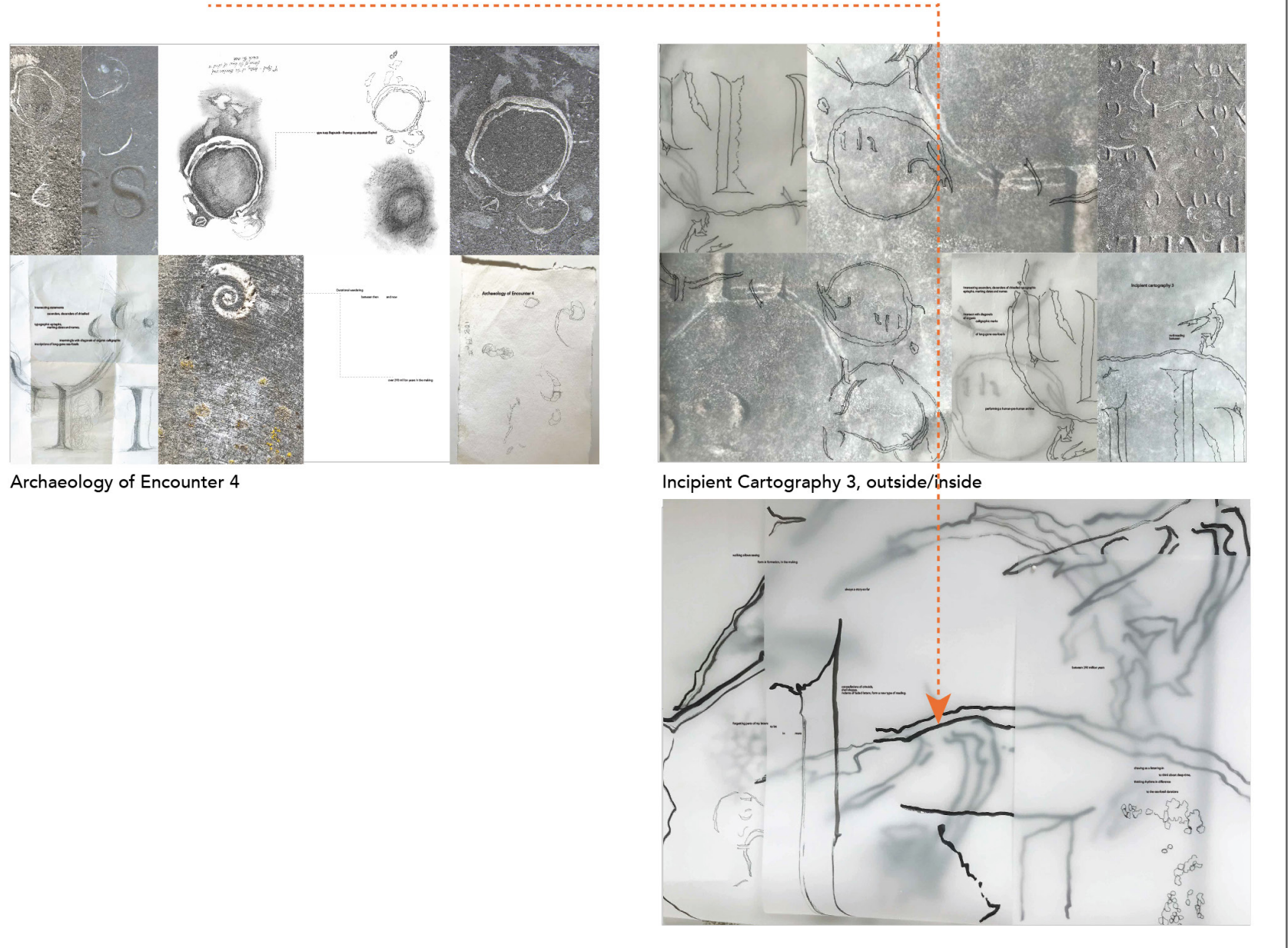


Fig. 5.33

Revisiting the cemetery



Fig. 6.03

Fig. 6.04



Fig. 6.05

Fig. 6.06

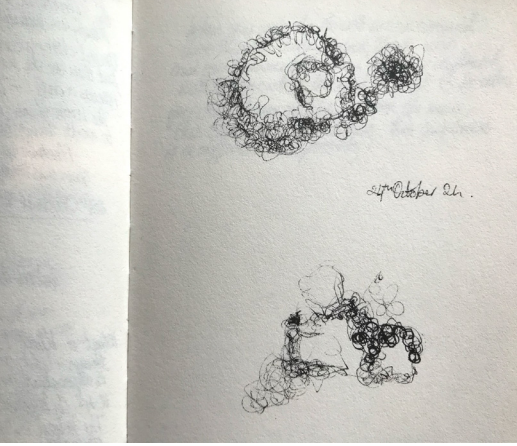


Fig. 6.07



Fig. 6.01



Fig. 6.08

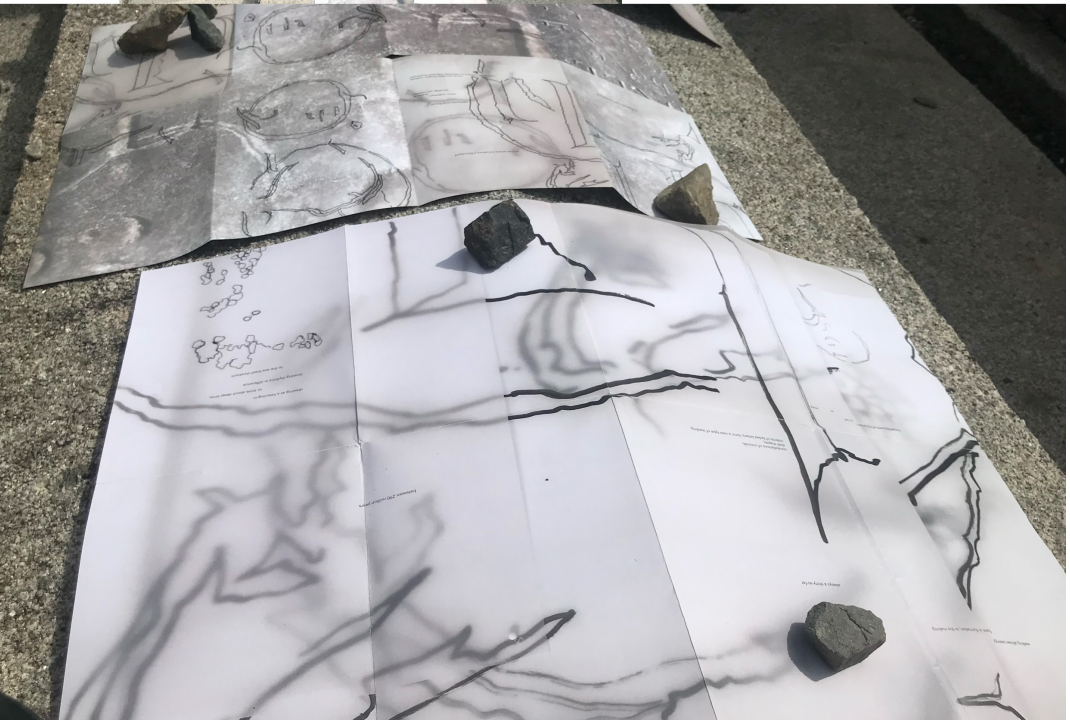


Fig. 6.02