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Product design to support creative ageing for people with dementia: a practice-based inquiry

Collingham, Henry

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Product Design to Support Creative Ageing for People with Dementia: A Practice-Based Inquiry

H Collingham

Thesis and Appendices
in Two Volumes

PhD

2021

Product Design to Support Creative Ageing for People with Dementia: A Practice-Based Inquiry

H Collingham

Volume 1 of 2

Thesis

PhD

2021

Product Design to Support Creative Ageing for People with Dementia: A Practice-Based Inquiry

Henry Collingham

A thesis submitted in partial fulfilment of the requirements of the University of Northumbria at Newcastle for the degree of Doctor of Philosophy

Research undertaken in the Faculty of Arts, Design & Social Sciences

May 2021

Abstract

The practice-based research presented in this thesis was an exploration into the impact, context, and potential of co-creation to affect the lives of People with Dementia. I present transferrable insight from a year-long Embedded Ethnographic engagement in a Residential Care Home, spent working alongside Participatory Artists, building critical insight into the aesthetic and sensory context of Care.

Insights from this Ethnographic research are developed and situated through Research through Design (RtD) practice in two further empirical design studies. Firstly, the co-creative development of physical material tools to support Creative Ageing practice. Secondly, the design of co-creative activities to allow People with Dementia to individualise elements of the designed environment.

My thesis highlights ways in which Product Design expertise can contribute to Creative Ageing practice and extends means by which People with Dementia can engage in the creation of individualised design outcomes, by contributing new methods and a new conceptual lens to the paradigm of Parametric Design, characterised by a questioning, generative and critical approach.

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List of Accompanying Material

Vignettes (i - vi)

Though this thesis documents my own experiences, I am by no means the subject of study. However, I feel that with a topic so personal, emotional, and as prevalent as Dementia, it is necessary and ethical to acknowledge my own experiences and motivations. I have chosen to include short autobiographical *vignettes* proceeding certain thesis chapters. These vignettes do not map chronologically onto the thesis, but they are placed throughout as stepping-stones in the hope of contextualising this work from my perspective, borne from my reflexive creative practice.

Appendices

henry.collingham.com/appendices

This thesis is accompanied by Appendices which follow and support my written account. These are bound into an accompanying volume (9.0). Where appropriate, audio-visual data – video, photos, animations, embedded PDFs are hosted online.

9.1 Photo Book

henrycollingham.com/photo-book

This appendix documents the majority of the design practice carried out during my doctoral research. Documentation of practice-based research artefacts is presented chronologically to correspond with text presented in the main body of my thesis; adding visual context to the experimentation and development behind each piece.

9.2 Contextual Review Map

henrycollingham.com/contextual-review-map

To accompany the Contextual Review (2.0) presented in my written thesis, I used this working document to situate scholarly work alongside commercial products to further contextualise my inquiry.

9.3 Twelve Interactions

henrycollingham.com/twelve-interactions

A series of animations created in response to Tom Kitwood's twelve positive interactions of Person-Centred Care (Kitwood 1999).

9.4 Worked Example of Ethnographic Analysis

A step-by-step method guide to by Ethnographic Analysis.

9.5 Visual Video Analysis Example

A step-by-step method guide to by Video Analysis.

9.6 Shipley Workshop Animations

henrycollingham.com/shipley-workshop-animations

Edited video excerpts and animated annotations from the Participatory Making Workshop held at Shipley Gallery, Gateshead as part of the second study of this thesis (5.0).

9.7 Ethics Application Example

An extract from the University Ethics application for my second study (5.0) co-authored by my research partners, including sample information sheets and consent forms.

9.8 Interview Schedule

Schedule for participant interviews from my final study (6.0).

9.9 Codebook Extract

Example codes generated during my final study for analysis (6.0).

9.10 Making In The Moment: Insight from Participatory Arts for Co-Design Practice in Dementia Care Settings. (Collingham, Durrant, and Vines 2020)

This conference paper was published at Design4Health 2020 to disseminate learning from my first study (4.0) and has been included to enable the reader to be fully informed of my contributions to knowledge.

Acknowledgements

I would like to acknowledge the community of people who have participated in my research. I am indebted to the community of Residents I got to know through my Ethnographic research, the charming, welcoming, and kind-hearted gang who taught me so much about embracing creativity, letting go, and having fun. I cherish the friendships that I have built with the community of People with Dementia I have had the privilege to meet over the past few years.

Thank you to Equal Arts and their wonderful Artists who feature in this thesis – I couldn't have found more supportive or inspiring research partners.

Thank you to my steadfast supervisors, Professor Abigail Durrant and Professor John Vines, whose dedication, support and creative collaboration has been a constant source of challenge, guidance, and reassurance throughout. Thank you also to Dr Tommy Dylan and David O'Leary for additional supervisory support.

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Declaration

I declare that the work contained in this thesis has not been submitted for any other award and that it is all my own work. I also confirm that this work fully acknowledges opinions, ideas and contributions from the work of others.

Any ethical clearance for the research presented in this thesis has been approved. Approval was sought and granted by the Departmental Ethics Committee on 15 February 2018, 25 September 2018, and 22 March 2021.

I declare that the Word Count of this Thesis is 54,712 words

Name:

Signature:

Date:

This thesis is dedicated to Shion, of course.

Without your example I wouldn’t have been inspired to start,
without your strength I wouldn’t have known why to keep going,
without your determination I wouldn’t have ever bloody finished.

Key Terms

Co-Creation

Collaborative, creative activities involving two or more people. Creative action, events, or activity typified by Artists and Design practitioners moving to include end users or audiences of intended works in their development with the goal of democratising creativity through participation, including Co-Creative Design Research (Sanders and Stappers 2008; Sanders and Stappers 2016).

Creative Ageing

An emergent movement encouraging Arts and creative practice designed for People with Dementia that uses ‘the imagination model’: marking a move away from reminiscence and remembering; and nurturing an exploratory, ‘failure free’ environment (Thwaite 2017).

Design for Dementia

A term I use for the purpose of this thesis to refer to the growing actions of Designers creating products and services intended to help support People with Dementia, as well as related academic inquiry in the field of Design Research, and related fields such as Human Computer Interaction (HCI).

Parametric Design

A collective term for design practices that incorporate variability, driven by changeable aspects, or parameters, of designs (Woodbury 2010). Most commonly used in Computer Aided Design (CAD) software (Bryden 2014) in the fields of Architecture (Tedeschi 2014) and Product Design (Malakuczi 2019), parametric methods and techniques include; Versioning, Iteration, Mass-Customisation, and Continuous Differentiation (Jabi 2013).

People with Dementia

When referring to people living with a diagnosis resulting in Dementia, and where that is relevant to this thesis, I have chosen to use the terms: ‘People with Dementia’, and ‘People living with Dementia’. These choices use ‘People first language’ (Pullin 2009, 2) promoting the framing of individuals primarily as People, with secondary consideration given to any relevant pathology.

Residents

During my field work, a diagnosis of Dementia was never used as an inclusion criterion. The majority of my fieldwork took place in Creative Ageing workshops held in a Residential Care Home that is a Dementia Specialist Care Home, and the vast majority of its Residents live with one or more diagnosis resulting in Dementia. As such, I only refer to People with Dementia where it is relevant, and otherwise refer to Residents of the Care Home, which was often the most relevant thing that the individuals who I engaged shared in common with the rest of the community.

i. Getting to work.

During the first few weeks of my PhD spent in the library, Design Meets Disability by Graham Pullin (2009) read as a warm invitation into this complex, politically-charged, and nuanced design space. Pullin introduces the all-stars of Product Design to messy, unglamorous, and as yet uncharted design contexts.

Design Meets Disability was the first of the books I read during my PhD which I was sad to finish. It remains one of the few books of which I have multiple copies which I continue to thrust, unbidden, into the hands of colleagues, students, and anyone thinking about how we interact with the designed world.

The book centres on the ways in which society disables people, categorises people by what they cannot do, then serves them the lowest-common-denominator design work. Pullin calls for Designers to reframe their thinking, start listening to people, and get to work.

1.0 Introduction

Dementia can be thought of as two sets of changes happening to a person: one clinical and the other social (Kitwood et al. 2019, 24)[1]. From the clinical perspective, Dementia is a collection of symptoms representing a broad range of serious neurological conditions with an equally broad causality. These can result in the gradual failure of memory, reasoning, comprehension, and the ability to carry out activities in daily life. The social changes associated with Dementia are similarly unique and can include changes to relationships, power-dynamics, social isolation, increased stigma, and loss of autonomy. This thesis is entirely concerned with the second set of changes, to the social lives of People with Dementia.

The practice-based research presented in this thesis describes how I have used Design to explore socio-political structures surrounding People with Dementia. Understanding Design as a social tool has given me the ability to approach the experiences of People living with Dementia in a social context and seek to learn how Designers can aim to positively influence their wellbeing and Quality of Life through creativity and self-expression. I set out to find spaces where People with Dementia were encouraged to be as creative and expressive as possible, and to see what I could learn from them as a Product Designer. In seeking out these spaces I have been able to

1 'Dementia Reconsidered', Tom Kitwood's seminal 1997 work, is a fundamental text in the field of Dementia Care referenced frequently in this thesis. However, I refer principally to the 2019 re-edition of his book, 'Dementia Reconsidered, Revisited', which contextualises the original writing within contemporary academic discourses of Clinical Psychology, Dementia Studies and Gerontology (Kitwood et al. 2019).

visit drop-in centres, Dementia specialist Care Homes, Arts venues and support groups as well as academics and independent Artists working in the community. Most of my research engagements have been brought about by my collaboration with Equal Arts[2], a Creative Ageing charity that has been delivering Arts practice to People with Dementia for over 30 years. Throughout this research I have been lucky to spend time alongside People with Dementia, their families, and their carers, in a number of Care Settings.

Equal Arts supports older people and those living with Dementia through access to the Arts (Equal Arts 2019). I first met Equal Arts' director of over 25 years, Alice Thwaite, in March 2018. Alice's drive and determination to improve Quality of Life through access to the Arts for as many People living with Dementia as possible has been a primary source of guidance and inspiration. I was able to work alongside Equal Arts' Artists to deliver weekly Creative Ageing workshops in a Residential Care Home over the course of one year – my account of which forms the first study of this thesis.

I carried out two Design studies that form the main practice-based elements of my doctoral work. Firstly, I worked with the Artists to design 'In The Moment' cases – a set of physical, material tools intended to reflect, scaffold, and encourage Creative Ageing practice in Residential Care Homes. Secondly, drawing on my training and professional expertise, I designed three co-creative activities for Care Home Residents to individualise designed products. The development of these designs was informed by Parametricism,

2 Equal Arts are a registered charitable body in North East England, UK. Charity No: 517352 https://www.equalarts.org.uk

a set of novel sensitivities and techniques detailed in this thesis, and developed to reflect the insights generated through my initial Ethnographic engagement.

As a Designer, I have responded to findings from my empirical research by working with a breadth of media aside from writing. As such, the appendices to this thesis include the documentation of sketches, physical models and prototypes, animation, and video editing. These appendices represent analytic moments of inward articulation (reflexivity), sense-making, and outward communication through creative practice that informed the writing of this thesis.

1.1 Research Questions, Aims and Objectives

This PhD project is motivated by the following Research Questions that were informed by my background reading and scoping work on the subject.

1. **How is Creative Ageing practiced through creative engagements in Care Settings by Arts and Design practitioners to support People with Dementia, and what is the experience of these engagements for those involved?**
2. **How can Product Design practice and resultant designed artefacts support a co-creative research engagement with People with Dementia in Care Settings?**
3. **How can methods be developed for the co-creation of individualised design outcomes, informed by a critical exploration of parametric methods and techniques?**

An overarching aim of this practice-based research is to explore the roles that Product Design expertise can play in facilitating increased autonomy and self-expression of People with Dementia in Care Settings, with the goal of improving their wellbeing and Quality of Life. My specific aims and objectives follow.

1. To gain a critical understanding of Creative Ageing –

i. Conduct Embedded Ethnographic Design Research alongside Creative Ageing practitioners to understand the experience of taking part in creative engagements with People with

Dementia;

ii. Examine my own biases and preconceptions about working alongside People with Dementia.

iii. Explore how acts of creativity by People with Dementia can affect personal relationships, social constructs, and power dynamics within the environment of care.

A key related objective is for resultant empirical understanding to inform the design of artefacts that support creative and aesthetic expression by People with Dementia in Residential Care Settings.

2. To explore the methodological alignment of Product Design practice with Creative Ageing in Care Homes –

i. Support and scaffold Creative Ageing practitioners through designed artefacts;

ii. Scaffold creative and aesthetic expression by People with Dementia through designed artefacts;

iii. Explore modes of sensory interaction through the material language of Design.

A key related objective is to deliver insight about how artefacts designed to support creative and aesthetic expression are used, and to deliver considerations to inform the development of co-creative methods and techniques for working with People with Dementia and their Care providers.

3. To develop thoughtful means by which People with Dementia can engage in the creation of individualised design outcomes –

i. Explore Parametric Design methods and techniques which allow Care Home Residents to individualise elements of the material environment.
ii. Create novel, physical-material artefacts which scaffold co-creative Design activities for People with Dementia.

A key related objective is to deliver a critical understanding of co-creative methods and activities in practice, supported by documented examples of individualised design outcomes, plus a methodological contribution to knowledge in the fields of Parametric Design, Creative Ageing, and Design for Dementia.

1.2 Thesis Structure

My thesis is presented in three parts. In Part 1 I contextualise the doctoral project and my motivations and approach within fields of knowledge. In Part 2 I describe the empirical studies conducted for my PhD, guided by a generative, co-creative and practice-based approach. Then finally in Part 3 I discuss the new understandings and insights evidenced from the work, and my proposed contributions to knowledge. Appendices (9.0) accompanying my written account are included with this document, representing the account of my Design practice carried out during my doctoral work as well as specific supporting documents referenced in the main body of the thesis.

Part 1

2.0 Contextual Review

My thesis begins with a Contextual Review, a review of extant literature plus material artefacts, including products, exhibited work and prototypes that have been reported on (Gray and Malins 2004). This review informs the rationale and background for my studies.

I introduce contemporary approaches in Dementia Care, drawing focus onto the principles and practices of Person-Centred Care (Kitwood et al. 2019) and more specifically the Creative Ageing movement (Thwaite 2017). I present the growing evidence base for the efficacy of Creative Ageing practices through the Arts to increase Quality of Life and wellbeing for People with Dementia. I then situate the current discourse in Design for Dementia, and specifically how

it seeks to communicate and uphold core tenets of Person-Centred Care. I identify a growing call in the Design literature for increased individualisation and adaptability in designed outcomes for People with Dementia.

I then introduce the nascent field of Parametric Design in which flexible design systems are used to deliver bespoke individualised outcomes to consumers through varying degrees of participation and configuration. I critique the current discourse around parametric methods and techniques and contextualise the distinct approach I adopt in the thesis.

3.0 Methodological Approach

Leading from my Contextual Review, I introduce my interdisciplinary methodological approach to practicing Research through Design (RtD) (Durrant et al. 2017; Stappers and Giaccardi 2017), combining Ethnography and Human-Centred Design to work creatively alongside People with Dementia. I describe my ontological and epistemological positions, justifying my use of Phenomenology and Hermeneutics to study people's expression of their lived experiences. I describe how this position informs my practice of Embedded Ethnographic fieldwork with a focus on sensory interaction and the designed environment. This Embedded approach to fieldwork has created opportunities for me to build meaningful, Empathetic relationships with Residents through co-creative practice.

Part 2

4.0 Pearson Green: Embedded Ethnographic Engagement in a Residential Care Home

My first empirical chapter describes how my approach to Ethnography was used through research conducted in a Residential Care Home, Pearson Green[3]. I present, as an Autoethnographic account (Adams, Jones, and Ellis 2015), my experiences working alongside professional Artists from Equal Arts and with a community of Residents who took part in 30 Creative Ageing workshops over one year. I discuss the critical insights gained into the practice of Creative Aging and how it offers transferable insight for Design. This account reflects an analytic focus on my changing experience through practice, on the nature of sensory and material interactions designed for People with Dementia, and on the socio-political context of creative expression in Care Settings.

5.0 In The Moment: Design-Led Inquiry to support Creative Ageing Workshops in Dementia Care Settings.

My second study explores making design interventions for Creative Aging. Using co-creative methods, I designed a set of exploratory, sensory artefacts for Creative Ageing practitioners to work with in workshop settings. These artefacts were physical-material tools, creative resources intended to convey a particular aesthetic sensibility to the designed environment of Care that was informed by my Ethnography.

3 Pearson Green is a pseudonym.

6.0 Cups, Pots, and Lamps: Co-Creative Design Activities for Care Home Residents to individualise elements of the Material Environment

In my final study I developed three co-creative Design activities for Care Home Residents to design products in three categories: Cups, Pots, and Lamps. This study contributes ways in which Designers can create meaningful interventions for People with Dementia through exploratory, creative approaches.

Part 3

7.0 Discussion

I bring together learning from my empirical studies and respond to each of my research aims and motivations. I present insights from my three studies that contribute new knowledge to advance the Design for Dementia discourse and reflect upon the insight and context that grounds my value position as a Designer and Researcher connected to the Creative Ageing movement. I briefly revisit my research engagements and outline the critical role that Design can play in facilitating greater autonomy and self-expression for Care Home Residents through creative practice.

Finally, I situate the contributions to knowledge generated in this project and address my main research questions to consolidate my thesis and transferable insights.

1.3 Key Contributions

The key contributions of my doctoral work are discussed in the final chapter of this thesis account (7.5), but a brief summary follows.

- I contribute a critical understanding of Creative Ageing to inform Product Design practice that is guided by Person-Centred Care and co-creation (RQ1).
- I highlight how Product Design expertise can contribute to Creative Ageing practice, shaped by the Design Intentions that I have offered up when working in this mode (RQ2).
- I contribute case study examples of practicing Research through Design (RtD) as a Product Designer, demonstrating value of material design insight for Creative Ageing practice that is grounded in exploring the Sensory, Embodied, and Material environment and through intimate moments of making (RQ2, RQ3).
- I develop a means by which People with Dementia can engage in the creation of individualised design outcomes, by contributing new methods and a new conceptual lens to the Parametric Design paradigm that are characterised by a questioning, generative and critical approach. This raises implications for how individualised design outcomes are envisioned and produced (RQ3).
- I extended existing Parametric Design frameworks by introducing a distinct focus on Embodiment, Materiality and Context to inform Parametricism, establishing the foundations of a new methodological approach which supports Person-Centred and individualised co-creative Design practice (RQ3).

The contributions made through this account of work are situated within an interdisciplinary academic discourse. Person-Centred Care and Creative Ageing form the foundation of my approach within the context of Dementia Care, guiding ‘how and why’ I engaged People with Dementia in this Design Research, through situated, Embedded research practice and co-creation. I introduce these academic fields and position my work among them in the next chapter of this thesis.

ii. Family, Friends, and Dementia

The impact of Dementia on our personal lives is, sadly, universal. Before starting my doctoral research, I lost my paternal grandma Joan, my maternal grandpa Bill, and my friend and neighbour John to Dementia. These were the relationships which drew me to to pursue research in this context. During my PhD I lost another grandfather, Graham, and my father, Richard, to Dementia. Each of them was as unique in their experience living with Dementia as in the rest of their lives.

My position, biases, and conversation around the topic of Dementia and its impact on peoples' lives has been informed as a family member, friend, and carer. However, rather than draw from autobiographical experience in this research I set out to meet a diverse community of People living with Dementia and situate myself alongside that community, as a designer.

2.0 Contextual Review

In this chapter, I outline the key literature and practice that underpins and informs this doctoral work. I will firstly introduce Dementia Care in the UK (2.1). I will explain how Person-Centred Care is widely adopted and stands in opposition to a historically medicalised paradigm of Care practice (2.1.1). I will situate how Person-Centred Care can been used in Residential Care Settings with a focus on maintaining individual Personhood (2.1.2). Next, I will explore how Care Settings are achieving this by increasingly engaging with professional Arts practitioners with a focus on imagination and creating new skills through Creative Ageing (2.1.3).

I will then build on this research landscape by introducing examples of Design practice in a Dementia context (2.2). I will map ethical tensions within the Design for Dementia discourse and consider how these tensions impact my doctoral research (2.2.1). I will then explore the parallels between Person-Centred Care and Human-Centred Design practices, which both, arguably, seek to elevate the influence of each individual and their voiced needs and desires within the context of Care (2.2.2). I will then introduce extant Design Research that explores links between Personhood and Individualisation, with increasing calls for bespoke design outcomes in the literature. I will present examples of how this has so far been explored, referring to the increasingly participatory nature of Design Research in Care Settings, particularly in relation to the previously contextualised practice of Creative Ageing and the introduction of bespoke, or

individualised design interventions (2.2.3).

Following this, I will introduce the nascent field of Parametric Design (2.3). Parametric methods and techniques are used to create flexible design systems for generating multiple outcomes, rather than a single, static outcome (Malakuczi 2019). I contextualise my definition of Parametric Design in relation to equitable practices in related creative fields (2.3.1). I then explore Parametric Design's relationship with digital design practice. I identify ways in which parametric methods and techniques could be selectively developed to address the calls for meaningful inclusion and individualisation in Design for Dementia.

I will then present six extant projects that illustrate a breadth of design intentions relevant to my inquiry. I compare Designers' choices regarding aspects of Co-creation, Materiality, and Individualisation – elements chosen to highlight themes common to Creative Ageing, Design for Dementia, and Parametric Design (2.4). This comparison is used to identify gaps in product categories, methods, and design approaches within my research context. I highlight parallels between the calls for increased individualisation in Design for Dementia and selected approaches that may be adapted from Creative Ageing, Participatory Design, and Parametric Design to address these calls.

Finally, I synthesise the reflective commentary set out in this chapter to reassert the motivations for the Design-led inquiry presented in this thesis (2.5), which address identified gaps in knowledge, guided

by a practice-based methodological approach that I will set out in the following chapter (3.0).

2.1 Dementia

Dementia represents profound neurocognitive (American Psychiatric Association 2013) and socio-political changes (Gilliard et al. 2005; Shakespeare, Zeilig, and Mittler 2019). It is a term used to categorise a collection of symptoms related to cognitive and bodily functions, with numerous causes. These symptoms are typically experienced by the gradual recession of certain mental functions; short term memory loss, trouble concentrating, difficulty communicating verbally, and challenges with spatial perception and orientation (Alzheimer's Society 2020). At the time of writing, one million people in the UK are estimated to be living with one or more diagnosis resulting in Dementia (Prince et al. 2014), with the same number thought to be undiagnosed (Wittenberg et al. 2019).

People living with Dementia are often confronted with stigmatisation resulting from a lack of awareness and social understanding about the social changes they face (WHO 2019). There is currently no cure for Dementia, and as such an emphasis in Dementia Care policy is placed on finding ways to 'live well' with the condition (NHS 2018). In the UK, this primarily follows the framework of Person-Centred Care, popularised by Tom Kitwood, which I introduce in the next section of this review (Kitwood et al. 2019; Edvardsson, Winblad, and Sandman 2008; Brooker 2015).

2.1.1 Person-Centred Care

Kitwood conceptualised the experience of a Person with Dementia as undergoing two linked sets of changes. Firstly, the clinical, pathological changes resulting in the gradual decline of brain

function - often mirrored by measurable physical changes in the brain's structure. Secondly, changes to the social-psychological environment; one's relationships, autonomy, and the interactions connecting individuals to their community, personal biography, and environment (Kitwood et al. 2019, 24).

Though the two sets of changes outlined by Kitwood are inextricably linked, it is through the latter that we can understand Dementia primarily as a social construct (Gilliard et al. 2005; Shakespeare, Zeilig, and Mittler 2019), and therefore use Design as a tool to work within social spaces for affecting change. Throughout my doctoral studies, I have concerned myself almost entirely with these social-psychological changes, rather than prioritising a pathological interpretation of Dementia. Instinctively, I had to be mindful of individuals' needs and wellbeing throughout my research, and not disregard any constructive understanding of Dementia. However, I made a conscious effort to contextualise these needs more broadly within my engagement with each individual person, rather than making assumptions based on any shared diagnosis. Understanding of this social-psychological approach has its foundations in Person-Centred Care.

Person-Centred Care requires, at its most basic level, that acts of Care should treat each person as just that, a whole person. Person-Centred Care emphasises the centrality of authentic communication and Personhood, and acknowledges the link between Embodied experience and the broader social structures, or Habitus (Kontos 2005), of each person's lived experience; their culture,

heritage, social class, education, socio-economic background, and biographical narrative (Kitwood et al. 2019).

> *'The tendency for older people to be marginalised or discriminated against, the tendency for their standing as selves to be undermined, the possibility for alienation from themselves, these are all political matters. The cry of solidarity and the demand for citizenship should be our response to the undermining of the human rights of large parts of our societies worldwide simply because they are ageing and, in particular, because of Dementia.' (Hughes 2011, 169)*

Carl Rogers' understanding of Empathy is one of the ideas that is central to Kitwood's development of Person-Centred Care and is especially relevant to this thesis. Rogers believed people to be innately good and advocated *truly meeting* and responding to others on a feeling-level to build Empathy. He argued that for this to be achieved individuals should firstly come to know themselves and be able to foster an internal locus of self-evaluation. This would help support people in coming to terms, emotionally, with the expectations placed upon them as actors in society and ultimately to build Empathetic understanding toward one another. (C. R. Rogers 1974; C. R. Rogers 1975; C. Rogers 1995).

Kitwood's seminal work, Dementia Reconsidered (Kitwood 1997), introduced Rogerian Empathy to the Dementia Care context through Person-Centred Care. Kitwood was responding to the dominance of a medicalised narrative of Dementia in the provision of health and

Care, and institutionalised approaches to managing People with Dementia in care- which he referred to as The Standard Paradigm (Kitwood 1988; Kitwood 1993; Kitwood 1996; Kitwood et al. 2019). Dementia Reconsidered has had a lasting effect on the adoption of Person-Centred Care into protocols, policy, and practice over the past two decades. Whilst understanding about the practice and the provision of Person-Centred Care has developed vastly since the term was first introduced (Brooker 2004), there is still much to do to ensure that the actual lived experience of People with Dementia is genuinely Person-Centred (Brooker and Latham 2015; Dewing 2008a). This is because, arguably, a medicalised narrative of living with Dementia persists.

Kitwood outlined 12 'positive interactions' of Person-Centred Care (Kitwood et al. 2019, 107–109). In the course of my studies, I chose to respond to each of these 12 interactions by making short animations[4] (Figure 1); this activity formed part of the creative practice of sense making and reflexivity that became core to my methodological approach. An in-depth discussion of Kitwood's 12 positive interactions is beyond the scope of this chapter, but for the purposes of documenting my review herein, I can highlight key concepts in discourse on Person-Centred Care that have informed my work.

One of the primary aims of Person-Centred Care is to maintain

4 Creating these animated illustrations helped me to reflect upon and scrutinise my interpretation of Kitwood's writing in the context of my experiences and Design practice. As each interaction suggests a relational exchange of either actions or ideas, I used geometric shapes to represent actors in each animation and chose not to differentiate between representing the person receiving Care and the person giving care, instead illustrating the relationship between those actors. These short animations are included as an appendix to this thesis (9.3).

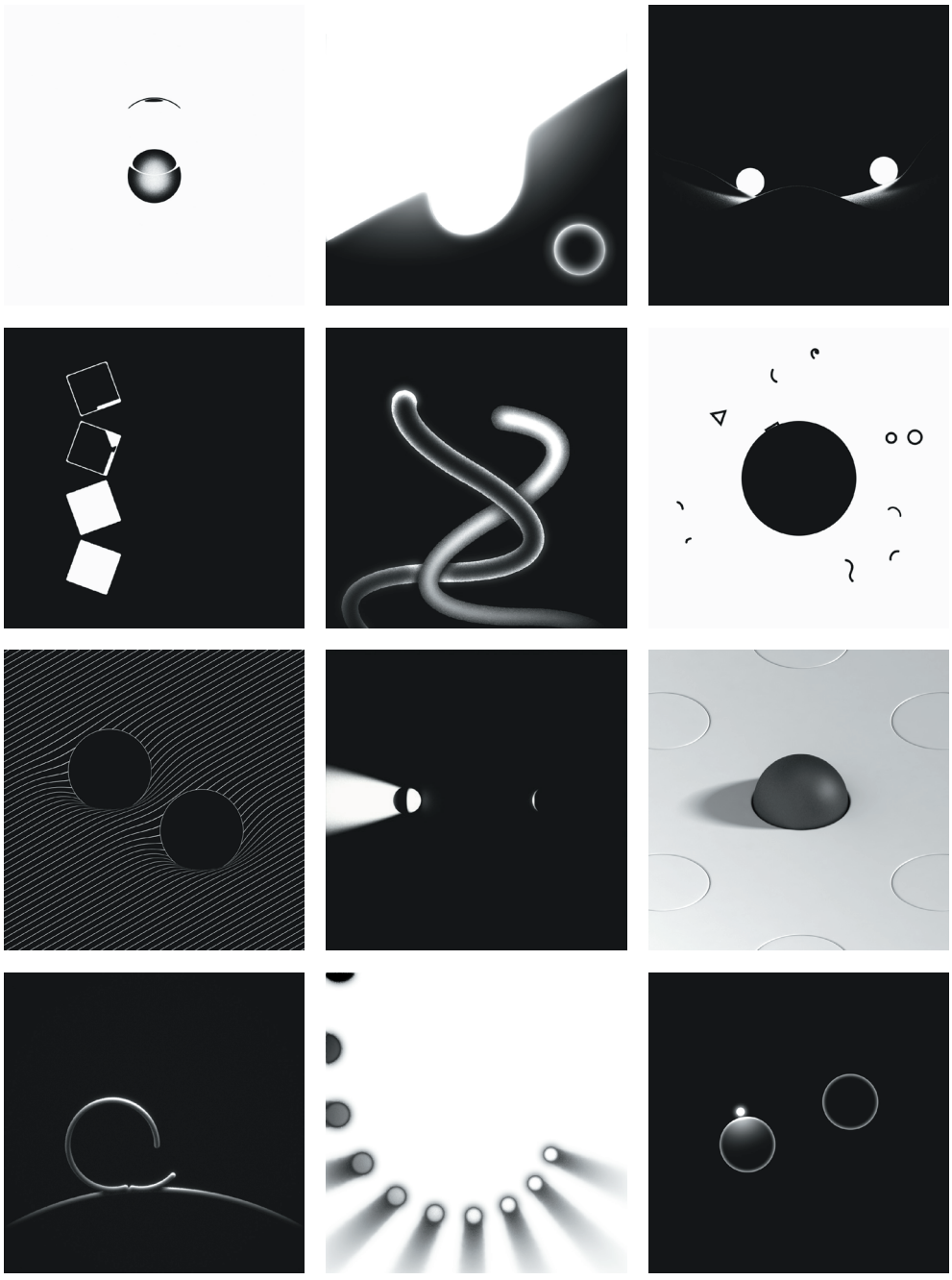


Figure 1. Twelve Interactions (see Section 9.3) Credit: The Author

Personhood, which Kitwood defines as ‘a standing or status that is bestowed upon one human being, by others, in the context of relationship and social being’ (Kitwood et al. 2019, 6). Reflecting on this notion of maintaining Personhood, Pia Kontos highlights a tension in adopting a relational definition of Personhood as something bestowed upon another person, and encourages a pre-reflective conceptualisation of the body giving substance in-and-of-itself to the individual as a person, arguing that an understanding of Embodied Selfhood allows us to move even further away from the primacy of ‘the threshold of cognition’ (Kontos 2005, 559) being a prerequisite to Personhood.

There is no single, agreed-upon definition of Person-Centred Care (Edvardsson, Winblad, and Sandman 2008). In an attempt to shepherd Person-Centred Care from the pages of policy documents into day to day Care practice, Clinical Psychologist Dawn Brooker introduced the VIPS Framework (Brooker 2004) to benchmark practice that has since been adopted into NICE guidance on Person-Centred Care for Dementia [NG97] (NICE 2018). Brooker’s framework echoes Rogers and Kitwood, as follows:

> *‘**Valuing** People with Dementia and those who care for them: promoting their citizenship rights and entitlements regardless of age or cognitive impairment;*
> *Treating people as **Individuals**: appreciating that all People with Dementia have a unique history, identity, personality and physical, psychological, social and economic resources, and that these will affect their response to cognitive impairment;*

*Looking at the world from the **Perspective** of the person with Dementia: recognising that each person's experience has its own psychological validity, that People with Dementia act from this perspective and that Empathy with this perspective has its own therapeutic value;*
*Recognising that all human life, including that of People with Dementia, is grounded in relationships, and that People with Dementia need an enriched **Social Environment** that both compensates for their impairment and fosters opportunities for personal growth.' (Brooker and Latham 2015, 12)*

Personhood is central to what makes us human and how we perceive and communicate with others, and has been explored explicitly through Design Research (Wallace et al. 2013; Foley, Pantidi, and McCarthy 2019; Branco 2018; Kenning 2018), which I present in a dedicated section of this chapter (2.2.2).

2.1.2 The Designed Environment of Care

Over the last two decades, social Care policy in the UK has increasingly focussed on strategies to support 'Ageing in Place' (Sixsmith and Sixsmith 2008; Age UK 2010). Ageing in Place refers to helping older people remain living at home and in the community they are used to, often supported by designed home adaptations and domiciliary care, to suit people's Care needs as they change over time (Age UK 2020; Yusif, Soar, and Hafeez-Baig 2016).

Ageing in Place is seen to benefit individual Quality of Life as individuals' Care needs change in older age, allowing people to

'[retain] a sense of independence, and [have] the freedom to choose Care arrangements' (United Nations 2008, 78). Though Ageing in Place is being increasingly adopted in the UK, it has drawn scholarly criticism for potentially over-simplifying the diverse needs of our ageing population and homogenising the individuality of those affected by its policies with a *one-size-fits-all approach* (Hillcoat-Nallétamby and Ogg 2014). However, one of the core drivers behind Ageing in Place, as opposed to the prevalent narrative surrounding living in Residential Care Settings, is to foster a philosophy of independent living to give older people, often including People with Dementia, more autonomy, choice, and influence over their Care and environment (Sixsmith and Sixsmith 2008).

Despite this policy focus on moving towards Ageing in Place, 400,000 of the UK's older adults in receipt of later life Care currently live in Residential Care Settings (Age UK 2019, 16). Residential Care Settings include Residential Care Homes and Nursing Homes. Residential Care Homes provide housing and assistance with daily activities such as dressing, washing, and taking medicine and can also be registered to meet more specific Care needs including Dementia. Nursing Homes provide the same Care as Residential Homes but with the guaranteed added presence of qualified nurses to provide nursing Care for those who need more support (NHS 2019). Some Nursing Homes are also designated as dedicated Elderly Mentally Infirm (EMI) Homes, for Residents who require 24-hour supervision and Care *'in a protected situation'* (Minister Care Group 2019). 58% of UK Care Home Residents are living with Dementia, with that proportion significantly higher in Nursing Homes

(73%) and EMI Homes (90%) (Prince et al. 2014, 13).

The aesthetic quality of Residential Care Settings has been found to correlate with the Quality of Life and wellbeing of Residents (Parker et al. 2004; Verbeek et al. 2017). Low, Draper, and Brodaty's study of Nursing Home Residents suggests homogeneity plays a role in negative relationships between Design and Quality of Life and that there is no single environmental design suited to a diverse community of Residents with divergent needs (Low, Draper, and Brodaty 2010). Furthermore, Cohen remarks that '*environmental approaches can often have a faster, safer and more effective impact than pharmacological interventions'* (Cohen in Brawley 2006, 27).

Person-Centredness, regarding the environment of care, is often aligned with greater access to personalisation for People with Dementia, across all aspects of their daily lives.

> *'Personalisation means thinking about care and support services in an entirely different way. It means starting with the person as an individual with strengths, preferences and aspirations and means putting them at the centre of the process of identifying their needs and making choices about what, who, how and when they are supported to live their lives. It requires a significant transformation of adult social care so that all systems, processes, staff and services are geared up to put people first.' (Social Care Institute for Excellence 2010)*

Innes, Kelly, and Dincarslan of The Dementia Services Development

Centre report on the aspects of environmental design in Care Homes which are most important to People with Dementia and their family carers. They report that whilst families highlighted the importance of architectural features, such as good way-finding and access to outdoor spaces, as signifying 'good quality of Care' for their loved ones, Residents themselves were more concerned about how spaces may actually be used, and the provision of stimulating activities. They echo Low, Draper and Brodaty in recognising the complexity of designing for a diverse community of Residents with individualised needs, stating that *'Design must accommodate all of them if Care Home living is to be acceptable to People with Dementia'* (Innes, Kelly, and Dincarslan 2011, 554).

Care Settings where design is focussed on health and safety have been found to have a negative impact on Residents' Quality of Life, whilst design that prioritises social contact, autonomy and individualisation has a positive impact (Torrington 2007). Calls for the agenda of Designers to shift away from *'designing in order to control, affect, or diminish "problem" behaviour… toward attempting to understand how environments can actively encourage pleasurable and satisfying behaviour'* (Chalfont and Rodiek 2005, 347) align Human-Centred Design approaches with the values of Person-Centred Care (Parker et al. 2004) through upholding the Residents' individual expression and experience as an utmost priority.

Explorations of the relationship between Care and its architectural setting (Torrington 2006), and the relationship between Care and the materiality of those settings (Brownlie and Spandler 2018; Buse,

Martin, and Nettleton 2018; Csikszentmihalyi and Halton 1981) help us understand that the physical material context of Care is not only a passive indicator of the Care provided, but an active component of that care, *'generative of actions and reactions'* (Martin et al. 2015, 1011). This is a reflection of understanding that Design itself is a generative process (Gaver 2012).

In Dementia research and Disability Studies, (*Embodied Selfhood* (Kontos 2005), and *Emplacement* (Garland-Thomson 2011; Turner 2006)), the concept of Habitus, as developed by Pierre Bourdieu (1980), has found utility for considering both the physical-environmental and socio-political structures of Care Settings. Habitus offers means by which Embodied expression and behaviour shapes and is shaped by the physical and social structures surrounding us (Bourdieu 1980; Kontos 2005; Kontos and Grigorovich 2019) which informs the understanding of designed interventions as generative actors within these structures (Csikszentmihalyi and Halton 1981).

When Design is conceptualised as a generative actor within the environment of care, designed elements can be examined as sets of *signifiers,* which can be understood from two relevant perspectives. *Signifier* is a term used in both the fields of Design and Semiotics. Don Norman introduced the term to a Design audience, as a designed element that invites a behaviour. Norman defines *signifiers* separately to *affordances*, which are designed elements allowing the possibility for a behaviour. (For example, the hidden hinges of a door *afford* opening, while the door's handle *signifies* opening to the user.) In a sense, Norman's signifiers are signs of communication from

an object to the public (Norman 2013, 13–20). To the semiotician, however, signifiers are elements of the designed world that can be interpreted to uncover intention or meaning in a broader socio-political and cultural context, which semioticians refer to as the *signified* (Csikszentmihalyi and Halton 1981). (By example, a door may signify the invitation or prevention of movement within a building or organisation with the intention of reinforcing access and hierarchy, depending on the physical and cultural context of that door.) Semiotic signifiers differ from Norman's by not only communicating from an object to the public, but also communicating power structures, social expectations, and structures that change over time. Both of these understandings of the term are relevant to the inquiry presented in this thesis, and I use the term herein to further explore Habitus.

As a Researcher working in the context of Care, I critically engage with the designed environment by interpreting the signifiers of power structures and social expectations surrounding People with Dementia. As a Designer, I am hoping to introduce new artefacts into that environment which, themselves, signify behaviours and interactions.

Siles González uses Interpretative Hermeneutics to explore the expressions of experience forming a 'Cultural History of Aesthetics in Nursing Care', drawing a parallel between understanding aesthetic expression as a relational act (Dewey 1934) and, similarly, understanding acts of Care as situated between actors (Siles González and del Carmen Solano Ruiz 2011). Siles González finds that our aesthetic experience of Care Settings is fundamentally

linked to their cultural history, and the driving paradigm behind design choices. As with Habitus mentioned above, I will return to unpack Interpretative Hermeneutics in my Methodology chapter (3.1.2), as it informs my analytic lenses.

Negative aesthetic interpretation of Care Settings has been linked to the Residents not being as involved in the design of Care Home environments as they could be (Dee and Hanson 2019). In her study of 'The Meaning of "Independence" for Older People in Different Residential Settings', Hillcoat-Nallétamby notes that independence can be *'shown in terms of doing things alone and being self-reliant'*, rather than other interpretations of independence, such as spatial, social, or decisional autonomy (Hillcoat-Nallétamby 2014, 424). These notions of independence, participation, and influence upon the aesthetic environment of Care are the subject of a growing body of Design Research literature will I explore in a later section of this chapter (2.2), and also inform Creative Ageing, which I will contextualise in greater depth in the next section (2.1.3).

2.1.3 Creative Ageing Movement

In line with contemporary ways to live well with Dementia, creative Arts-based interventions and activities are increasingly geared towards People with Dementia and Residents in Care Homes (Bellass et al. 2019). These activities focus on fostering new creative knowledge and experiences, aiming to affirm Personhood and challenge medicalised narratives of loss and regression (Kenning et al. 2019; Killick and Craig 2012; Thwaite 2017; Zeilig, Killick, and Fox 2014). I identify parallels between Creative Ageing, Person-Centred

Care, and Human-Centred Design practices, which I draw out in this section, building the foundational context in which I situate my inquiry. These practices are future-facing and endorse playfulness, openness, joy (Escalante et al. 2017; Killick and Allan 2012), and aversion to the often serious tone of Design for Dementia (Dykes 2017, 214).

There is a growing body of practice and research in the field of Dementia and the Arts that take a predominantly *Salutogenic* approach (All-Party Parliamentary Group on Arts Health and Wellbeing 2017, 130; Windle et al. 2017). *Salutogenesis* is an approach from Public Health which seeks to focus on factors which promote health and well-being, as opposed to *Pathogenesis* which seeks to mitigate factors which cause disease (Christie 2020, 56). This therapeutic approach once again mirrors Person-Centred Care, and a Human-Centred Design thinking, such as Chalfront and Rodiek's call discussed in the previous section of this chapter (2.1.2), for Designers in Care to move away from *'diminishing problem behaviours'*, and toward encouraging pleasurable ones (Chalfont and Rodiek 2005, 347).

Zeilig, Killick, and Fox's critical review of Participatory Arts in the context of People with Dementia, defines Participatory Arts practitioners as *'professional Artists that conduct creative or performing Arts projects in community settings with People with Dementia and their carers; the purpose of these projects is predominantly to promote health and well-being and is therefore therapeutic.'* (Zeilig, Killick, and Fox 2014, 13). The authors conclude:

> *'(P)articipative Arts are able to contribute positively to the lives of those living with a Dementia in manifold ways. These include: aiding communication; encouraging residual creative abilities; promoting new learning; enhancing cognitive function; increasing confidence, self-esteem, and social participation; and generating a sense of freedom among other documented benefits.'*
> *(Zeilig, Killick, and Fox 2014, 24)*

Hughes finds political notions of authenticity and citizenship to be reinforced by Care Home Residents working alongside professional Arts practitioners (Hughes et al. 2021). This echoes Participatory Arts' revolutionary roots in Italian Futurism[5] (Bishop 2012).

Cowl and Gaugler's systematic literature review elucidates common themes drawn from a broad range of Arts therapies in Dementia Care contexts, among them *'the capacity for self-expression of emotions and feelings despite language and cognitive deficits… (and) a personal sense of control, life meaning, and personal satisfaction'* (Cowl and Gaugler 2014, 308). This highlights that benefit to individuals' Quality of Life is brought about through the act of participatory creative practice, rather than through particular creative outcomes (i.e., artefacts, things made).

5 Futurism (Italian: Futurismo), was founded in Italy as part of the historic avant-garde Art movement in Europe around the time of the Bolshevik Revolution. Futurists sought to democratise access to, and participation in the Arts which at the time was the exclusive privilege of the ruling class. This, often unruly work invited members of the public through 'the fourth wall' onto stages, and into galleries. It is typified by Artists Russolo, Carrà, Boccionio, and Severini and was growing in popularity until its unfortunate invitation into the folds of Fascism which was on the march in Italy at the time, thanks to Benito Mussolini, but has enjoyed a steady resurgence since the 1990s (Bishop 2012).

Some studies have shown a decline in perceived artistic ability in people diagnosed with Alzheimer's disease (Maurer and Prvulovic 2004; Seifert, Drennan, and Baker 2001). This is in contrast to findings of some patients with semantic frontotemporal Dementia developing emergent artistic ability over time (Miller et al. 1998; Miller et al. 2000). Regardless of the given artistic skill of each individual, investigation into aesthetic response in patients diagnosed specifically with Alzheimer's related Dementia concluded that *'aesthetic perception of artistic images represents an "island of stability" in a condition that in most other respects causes profound cognitive disruption'* (Graham, Stockinger, and Leder 2013, 7). Given this, in Creative Ageing practice in a Dementia Care Setting, it is the job of the facilitating Artist to enable each person, as Kitwood recommended, *'to do what otherwise he or she would not be able to do, by providing those parts of the action - and only those - that are missing'* (Kitwood et al. 2019, 109).

Creative Ageing may serve as a gateway to more individualised practices being adopted more widely in the Care Home, where systematic shifts toward more Person-Centred practices are still called for:

> *'Personalisation for People living with Dementia means figuring out how people can have as much choice as possible in their day-to-day life. This means, for example, that people living in a Care Home are supported to decide when they want to get up, rather than this being determined by staff; when they want to have breakfast, instead of a set times for everyone; and how*

they want to spend their time, rather than just choosing to join in with a group activity in the afternoon or not.' (G. Bailey and Sanderson 2014, 15)

2.2 Design for Dementia

In this section I explore the role that Design can play in shifting the paradigm surrounding People with Dementia to align more closely with Creative Ageing approaches.

The physical, material, and sensory conception of medicalised settings as mechanised and impersonal is deeply rooted in their history, whereby the heritage of Care Settings is more closely linked to the asylum or laboratory, than one of Home or Hospitality (Goffman 1968). In his 1946 essay 'How the Poor Die', Orwell illustrates our collective cultural imagination of medical settings:

> *'(W)hen I entered the ward at the Hôpital X, I was conscious of a strange feeling of familiarity. What the scene reminded me of, of course, was the reeking, pain-filled hospitals of the nineteenth century, which I had never seen but of which I had a traditional knowledge.' (Orwell 1946, 64)*

Disrupting these medicalised environments of Care with objects of aesthetic beauty is a similarly established idea. Writing on the design of Care environments for older people, Craig quotes Florence Nightingale, who remarked *'variety of form and brilliancy of colour in objects presented to patients are actual means of recovery'* (Nightingale 1863; Craig 2017a).

Whilst the environments of Residential Care Settings still often come across as highly medicalised or impersonal, Designers are well placed to work towards transforming them. Arguably, this could be



Figure 2. Infusion Lamp. Credit: Paul Chamberlain

achieved through embracing an embodied, relational, and socio-political model of Dementia (Kitwood et al. 2019; Kontos and Martin 2013; Shakespeare, Zeilig, and Mittler 2019), and by making a generative link between the material environment and its therapeutic quality (Csikszentmihalyi and Halton 1981; Martin et al. 2015, 1011; Torrington 2006; Marquardt, Bueter, and Motzek 2014). Designers can use socially engaged design tools to help actualise Person-Centredness. Chamberlain illustrates the increasingly blurred line between domestic and clinical settings through Critical Furniture Design (Chamberlain and Craig 2017). Chamberlain mirrors how illness-related technologies are encroaching into traditionally domestic spaces as Designers seek to challenge medicalised aesthetics in Care Homes (Figure 2).

Design for Dementia literature joins Creative Ageing and Person-Centred Care discourses in calling for opposition to the often cold and clinical design within Care Home environments and products through increased participation and creative involvement of Residents (Branco, Quental, and Ribeiro 2017; Craig 2017b; Killick and Craig 2012).This echoes a broader trend within Design Research toward more socially oriented, political, Human-Centred, and participatory methods (Costanza-Chock 2020; Escobar 2018; Giacomin 2014; Manzini 2015; Muller and Druin 2012). Scholarly Design discourse calls for Designers to be more critically aware of the power structures implicit in Care Settings, encouraging using participatory methods in hopes to further disrupt the medicalised paradigm (Bratteteig and Wagner 2012; George and Whitehouse 2010, 351).



Figure 3. Alzhemier Nederland Branding Credit:Studio Dumbar

The tide of change within Design for Dementia is tangible, but slow. The dominant narrative of Dementia as a journey comprising solely of loss and regression is still prevalent in high-profile design work. For example, Studio Dumbar's arguably elegant branding work for Alzhemier Nederland (Figure 3) uses the principal visual motif of subtraction over time, like an ink blot on paper obscuring the typography (Studio Dumbar 2012). Upon the work's exhibition in 2017, the studio wrote that their *'new logo reflects the vanishing world of People with Dementia, but also suggests light and hope…'* (Wellcome Collection 2017). I feel that without downplaying the reality of the neurological degeneration and loss of function experienced by most People with Dementia, Design is well placed to shift the emphasis of this prevalent narrative towards focussing on different aspects of Dementia, like those explored in the Arts through Creative Ageing and other generative, co-creative practices (Killick and Craig 2012; Thwaite 2017).

Treadaway (2016, 8) calls for *'carefully designed material properties'* and understands the aesthetic experience of designed artefacts as both reflective of the socio-political context around People with Dementia and a generative influence within that context. Whilst central to the designed environment of Care, materiality also plays a role in the inclusivity of sensory and aesthetic experiences. Sensory impairments, such as visual impairments and hearing-loss are common among People with Dementia. Creative methods have addressed these differences in ability to develop novel methods of creative communication, and artistic expression. Killick and Craig offer co-creative contexts for dance, food, Visual Arts, music and

more, geared towards creative methods of communication (Killick and Craig 2012). These acts of sensory exploration often convey the uniquely creative and poetic ways People with Dementia can interact with aesthetic experiences (Killick and Allan 2011).

Inclusive sensory practices, such as dressing-up, playing with light and shadow, or imaginatively exploring sensory artefacts, can scaffold methods of non-verbal communication (Ducak, Denton, and Elliot 2016). These non-verbal acts can be seen as inclusive of People with Dementia who may not communicate verbally (Killick and Allan 2011), but also more broadly can articulate visceral experiences where language falls short, such as the Embodied experience of pain (Scarry 1987, 15–19).

2.2.1 Ethics in Person-Centred Design Research Practice

The ethical centre of Rogers' teaching is Empathy, which he describes simply as when *'you listen for the feelings and emotions that were behind the words'; 'That were, just a little bit concealed, where you could discern a pattern of feeling behind what was being said'* (C. R. Rogers 1974). Rogers and Kitwood advocate working toward truly meeting people without an agenda and trying to respond to each individual *'on the feeling level'* (Kitwood et al. 2019, 108). Research practice that claims to be Person-Centred should, it is argued, reflects Kitwood's central pursuit of Rogerian Empathy. Person-Centred Design Research methods should have the tenant of Empathy at their core, embracing participation can help to include People with Dementia with the practical processes of inclusive,

Empathetic research practice.

Gaining informed consent from People with Dementia to include them in research activity poses a number of ethical tensions (Murphy et al. 2015; Dewing 2008b, Hodge et al. 2020).

In deploying an Ethnographic method to help Care Home Residents evaluate the built environment of care, Dee and Hanson write that their *'research approach was driven by empathic values and informed by relationship-based practice. Contextualising consenting and data collection within a familiar and accessible activity was critical to enabling inclusion and is consistent with "situated ethics" as described in Dewing (2008b)'* (Dee and Hanson 2019). Dewing describes a method for consent that focusses on People with Dementia traditionally excluded from consent and thus from research, and also refocuses on consent as a process that runs through the whole of a research project and also suggests that use of this model can strengthen the assent process (Dewing 2007).

Given the potential changing ability of People with Dementia to problem-solve, communicate, or recollect recent events (Alzheimer's Society 2020), flexible and situational approaches to research ethics have been developed specifically for working alongside them. Dewing's Process Consent (Dewing 2008b) model offers five steps; *1. Background and preparation 2. Establishing a basis for capacity 3. Initial consent 4. On-going consent monitoring 5. Feedback and support,* which allows Researchers to adapt to the needs of groups and individuals with Dementia as they change over time.

Dewing uses the principles of Consent and Assent (Cridland et al. 2016; Slaughter et al. 2007) combined with the ongoing monitoring of consent, which is re-established upon each new meeting and made as transparent as possible using different adaptive modes of communication and asking someone else known to each Person with Dementia to validate the research process to help reinforce ongoing consent monitoring.

Despite making efforts using adaptive methods to include People with Dementia as much as possible in research practice these ethical tensions are intrinsic to any research practice; *'ethical issues arise from the very beginning of the research, they stay with us throughout our interactions with our research participants, and they continue to be relevant throughout the process of dissemination of the research findings'* (Willig 2013 in Hodge et al. 2020). In a comparative qualitative analysis of Design Researchers' experiences working alongside People with Dementia, Hodge and colleagues identified two major categories of ethical tension for participatory design work in this field: first, a tension between the relative agendas of protecting institutions and protecting individual People with Dementia; and, second, tensions surrounding the relationships created, maintained, and ended through research practice between Researchers and People with Dementia (Hodge et al. 2020). I will return to these tensions later in my thesis as I situate the ethical sensibilities and practice that have informed and guided the ethical approach I have taken through my doctoral work (3.3).

2.2.2 Person-Centred Care and Human-Centred Design

Person-Centred Care and the Human-Centred Design approaches have become increasingly aligned with seeking to elevate dialogical expressions of Selfhood within the context of care (Dee and Hanson 2019; Foley, McCarthy, and Pantidi 2019; Kitwood et al. 2019; Wallace et al. 2005; Wallace et al. 2013).

At its simplest, Human-Centred Design (Giacomin 2014; Norman 2013) seeks to involve the end-user of outcomes in the design process in order to build solutions that reflect a *'deep understanding of the people they're looking to serve'* (IDEO 2014, 9). However, some critics of Human-Centred Design contend its focus on problems and solutions through a *'hegemonic paradigm of innovation'* (Tunstall 2019, 349), instead calling for development towards Experience-Centred Design: an approach which foregrounds peoples' feelings, emotions, and thoughts through the development of Design (Wright and McCarthy 2010) Hougan, an Industrial Designer, considers dignity in his user population, from this perspective: *'by framing a design narrative around dignity, I find that responses from healthcare professionals, caregivers and even users [are] less ageist, and design solutions become more Human-Centred'* (Hougan 2017, 2).

Experience-Centred Design extends the notion of Human-Centredness to focus on understanding the 'felt life' of individuals for guiding Design practice; and its proponents adopt a specifically relational approach to understanding expressions of experience that is centred on establishing dialogical understanding between the



Figure 4. Personhood in Dementia Credit: Jayne Wallace

Designer and the person they are designing for and with (Wright, Wallace, and Mccarthy 2008). Foley writes that using Experience-Centred Design techniques alongside People with Dementia *'result[s] in a participative and collaborative approach to research… which embraces "experience" and "meaning making" as legitimate sources of knowledge'* (Foley, McCarthy, and Pantidi 2019, 40:2). Jayne Wallace refers to extant Design work conducted alongside People with Dementia as *'Person-Centred Design'* practice (Wallace et al. 2012, 3).

Wallace's co-creative work illustrates the alignment of Person-Centred values with Design Research practice (Figure 4). Wallace writes that they *'did not design for Dementia, [they] designed for Personhood… [They] intended to open up a broader canvas of human experience and self, to focus not only on remembering the past but also on (celebrating) the present and imagined futures'* (Wallace et al. 2013, 2624). The maintenance of Personhood, collaborative practice, and focus upon imagination materialised through this work, mirrors Creative Ageing engagements and resulted in a series of precious designed artefacts which delighted their intended users, Gillian and John.

Methodologically speaking, Wallace's inquiry was Design-led, wherein she undertook an inductive process of designing and making to guide the research and outcomes. The focus on materials was central to the inquiry, supported by more traditional participant observation and Ethnographic methods; and this work has informed my methodological approach (3.2.2). The designed artefacts resulting

from the inquiry led by Wallace were entirely bespoke, the outcome of a hand-crafted making approach to reflect the individuality and Personhood of their research participants, even incorporating material elements of Gillian's life history (Figure 4). There is an increasing call in Design for Dementia literature for individualised design outcomes (Branco, Quental, and Ribeiro 2017; Hodge et al. 2019; Gibson et al. 2019), which has been explored by Designers through different approaches which I discuss in greater depth in the next section of this chapter (2.2.3).

Aligning co-creative design methods with a Person-Centred approach, Lindsay and colleagues found physical-material objects central to facilitating design practice for People with Dementia, which closely married Kitwood's aims with Human-Centred Design (Lindsay et al. 2012). These Researchers join a growing call for participatory, Embedded design practices. Use of Ethnographic methods, including Visual Ethnography (Pink 2013) and Sensory Ethnography (Pink 2015) in Design for Dementia can foster longitudinal participation from People with Dementia (Branco, Quental, and Ribeiro 2017; Foley, Pantidi, and McCarthy 2019). Offering a relational approach to designing with and for People with Dementia, Hendriks and colleagues cite the benefits of creative expression, while acknowledging '*that they could only be used meaningfully in the design process after they had built close relationships with the People with Dementia, the environment in which they were Embedded, and the subjective ways in which a Person with Dementia experiences and makes meaning of their surroundings.'* (Hendriks et al. 2018, 59–60). As such, they reinforce the call for

Embedded, longitudinal research methods.

2.2.3 Personhood and Individualisation

Through the adoption of Person-Centred approaches, Design for Dementia literature calls for greater degrees of individualisation and participation for People living with Dementia, while appreciating the financial challenge posed by attempts to apply bespoke design or craft practice at a scale commensurate with the number of People living with Dementia and especially those most vulnerable people living in underfunded Residential Care Homes (Thwaite 2017, 29). *'Alternatives are… needed to the one-on-one approaches, often used in the development of highly personalized outcomes'* (Kenning 2018, 2).

This call for greater degrees of individualisation shares a key aim of Creative Ageing; to allow People living with Dementia increased creative expression. *'(D)esign [that] allows for individualization is likely to be useful for People with Dementia and acknowledges the multiplicity of experiences which People with Dementia and their families may face in the course of the condition'* (Morrissey, McCarthy, and Pantidi 2017, 1328). Zeisel echoes Wey (2006) to posit: *'there can be no "one size fits all" when considering how to design for this demographic'* (Zeisel 2010). Craig calls for practitioners using Design methods and approaches to support Personhood and individualisation to *'be prepared to see individuals' creativity and resilience, have confidence in design and creative practice as methods and modes to engage and to offer individuals structures and vehicles through which to be heard'* (Craig 2017b, 62). Lindsay and colleagues highlight *'the need for (designed) devices to be specific to individuals as important because individuals'*

circumstances [are] so varied' (Lindsay et al. 2012, 526).

The notion of individualisation has been explored in diverse ways by Design Researchers. For example, Branco, Quental, and Ribeiro took an approach akin to Wallace and colleagues, exploring individualisation of physical, material artefacts through 'openness' of the objects which was to be 'filled in' by participants. (Branco, Quental, and Ribeiro 2016). Hodge and colleagues used a Virtual Reality games engine to facilitate 'tailored experiences' for People with Dementia in a Residential Care Home (Hodge et al. 2019). Each of these projects involved an intensive process of making, using physical and digital techniques respectively, posing a challenge to the approaches' adoption at scale. Hodge et al address this by suggesting a further development of the work through the creation of templates, transferable assets, and an interface which could allow carers to customise the designed experience for Residents. This suggested approach to increase feasibility through modularity speaks to flexible design approaches, which I will explore further in the next section of this chapter (2.3).



Figure 5. Hanging Chains Credit: La Colònia Güell, Barcelona

2.3 Parametric Design and Parametricism

This section of my Contextual Review is distinct from those preceding it, as I introduce parametric methods and techniques which have been applied in a Design for Health context (O'Brien et al. 2018; Henley and Rodríguez Ramírez 2018) but are yet to be substantively explored in Design Research for People with Dementia.

At their core, parameters are the limiting constraints of any equation. Changing a parameter changes the outcome of the equation e.g., the length of a line, the curvature of a surface, the value of a colour. When Designers build these flexible equations into their work, it is commonly called Parametric Design. Using parametric methods and techniques, Designers create multiple possible outcomes, rather than a single, static one. This is what differentiates parametric approaches from established serial Product Design. Parametric approaches are varied, and the terminology is contended in this nascent field. I will situate the key terms relevant to my inquiry later in this section.

A *parametric model* offers one way for Designers to represent all of the possible outcomes for a design. These are most commonly created using data-driven CAD systems, such as Grasshopper for Rhino (Bryden 2014), but they do not have to be. The quintessential example of an analogue parametric model built outside of the computer is Antoni Gaudi's 'Hanging Chains', some of which can be seen on permanent display at La Colònia Güell in Barcelona (Figure 5). Gaudi hung weights from strings and chains to naturally model inverted *catenary arches*, which are strong in compression, allowing him to iterate complex architectural models by changing the length

of chains, or the amount of weight on each chain. Viewing the model up-side down in a mirror or with a photograph would allow him to see his design (Jabi 2013, 8).

Parametric approaches have the potential to substantially transform the field of Product and Industrial Design but remain underexplored, having had little traction within to date (Malakuczi 2019).

In 1939 Luigi Moretti first used the term ‘Archittecura Parametrica’ (Parametric Architecture) during his research exploring the relationships between dimensions and various parameters in collaboration with mathematician Bruno De Finetto (Tedeschi 2014). Later, in 1970 Alvin Toffler’s ‘Future Shock’ projected the ever-increasing scale and speed of mass-manufacture forward. This signposted a foreboding, prophetic future in which consumerism, wastefulness, and surrender of craft practice to the machine heralded the end of what he coined the ‘man-thing relationship’, as western society became further removed from how and why the things we buy are made following the industrial revolution (Toffler 1970). A decade later Toffler upturned his prediction due to the rise of data-driven systems and coined the term ‘prosumer’. The new, data-driven future he imagined promised: *‘complete customization – the actual manufacture of one-of-a-kind products…’* stating *‘(I)t will be no harder in the near future to custom produce something than it is to mass produce today’; ‘We’re beyond the modularization stage… and we’re just getting on to the stage of just plain custom production’* (Toffler 1980, 183). Around the same time in Fine Art, Stiny & Gips were speculating about algorithms not only autonomously generating

Art and Design work, but about the computer's ability to critique aesthetic works naturally and intuitively (Stiny and Gips 1978).

Contemporary thinking around the moral and philosophical implications of parametric approaches is most common in Architecture, rather than in Product Design (Tedeschi 2014; Lynn 2011; Jabi 2013). In his manifesto, 'Parametricism as Style', Patrik Schumacher (Partner at Zaha Hadid Architects) promises Parametricism will transform every facet of material design practice *'from urbanism to the level of tectonic detail, interior furnishings and the world of products'* (Schumacher 2009). However, his aspirations for the discipline are only skin-deep, as Schumacher proposes Parametricism as the defining *aesthetic* mode of the 21st Century; *'the great new style after modernism'* (Schumacher 2009).

Schumacher intends for the impossible, computational, mathematical complexity of algorithmically driven designs to elevate Architecture beyond the limitation of established Design paradigms, permeating down into every detail of the built environment. However, Schumacher's aesthetic Parametricism has invited criticism within Architecture. Coyne disparages the hyperbole surrounding Schumacher's Parametricism and the shortcomings of its proponents' ability to deliver on their promises, also disputing Schumacher's emphatic pursuit of a computational 'answer' to all of Architecture's questions (Coyne 2014).

Coyne offers the example of the Parametric Design of a chair as a simple illustration of the potential principles of Parametricism at work.

Users would be able to reasonably specify Coyne's chair based on a number or parameters; the height of the seat, the back, the length of the armrests, etc. before it was manufactured. Coyne then highlights the point within architectural practice at which the relationships between people, culture, history, space, and material become too complex to be reasonably addressed from within the computer as the limit of a parametric approach (Coyne 2014), as aesthetic freedom undermines or complicates the physical-material requirements of his chair. Coyne's criticism of parametric approaches, as reductionist, oversimplifying the messy human condition down to a finite set of equations, echoes Kitwood's criticism of 'the standard paradigm' in addressing the uniqueness of persons where consideration is needed for improvisation, disarray, and rule-breaking (Kitwood et al. 2019, 12–13).

Rawes' appraisal of Parametricism from a Critical Feminist Theory perspective discusses the ethical concern 'that Parametricism repeats the long tradition of disembodied, neutral, or "unsexed" reason' (Rawes 2012). Rawes' criticism highlights the motive behind the adoption of Parametricism in Architecture as *'How do we do it?'* rather than '*Why should we do it?'*.

Contemporary discourse around parametric methods and techniques in Product Design and how we produce and consume the resultant products has been mainly limited to two issues; 1. Mass-Customisation and 2. Computational Design, each defined by the role a consumer can take in a product's realisation.

Mass Customisation is arguably the less ambitious of the two discourses in terms of disrupting the primacy of serial design and mass-manufacturing, described as *'postponing the task of differentiating a product for a specific customer until the latest possible point in the supply network'* (Jacobs, Chase, and Aquilano 2004, 1). This equates, most commonly, to users specifying decorative elements or a configuration of components to order. Mass Customisation is, in a sense, simply a collective term for automated manufacturing techniques which demand little more resources to generate customised outcomes than generic ones; digital embroidery, inkjet printing, laser engraving, parts-assembly etc. and as such does not seek to disrupt the primacy of mass-manufacture but function as an extension of it. Examples of Mass-Customisation are specifying assembled computer-components (Christopher and Towill 2000), or adding initials to a pair of new trainers (Angioni, Cabiddu, and Di Guardo 2012).

Computational Design discourse, conversely, has high aspirations for social change – with a ground-up approach, linked to growing access to at-home, digital manufacturing that offers consumers control and influence over the manufacture of the products they purchase. *'Computational Design promises qualitatively different results, which can be both complex and fascinating… improving the Quality of Life for many people'* (Malakuczi 2019, 9). Computational Design is aligned with the Maker Movement (Dougherty 2012) and accessible Digital Fabrication technology, typically 3D printing, laser cutting, and CNC routing, often limiting its manufacture to digital prototyping processes. Computational Design concerns itself with

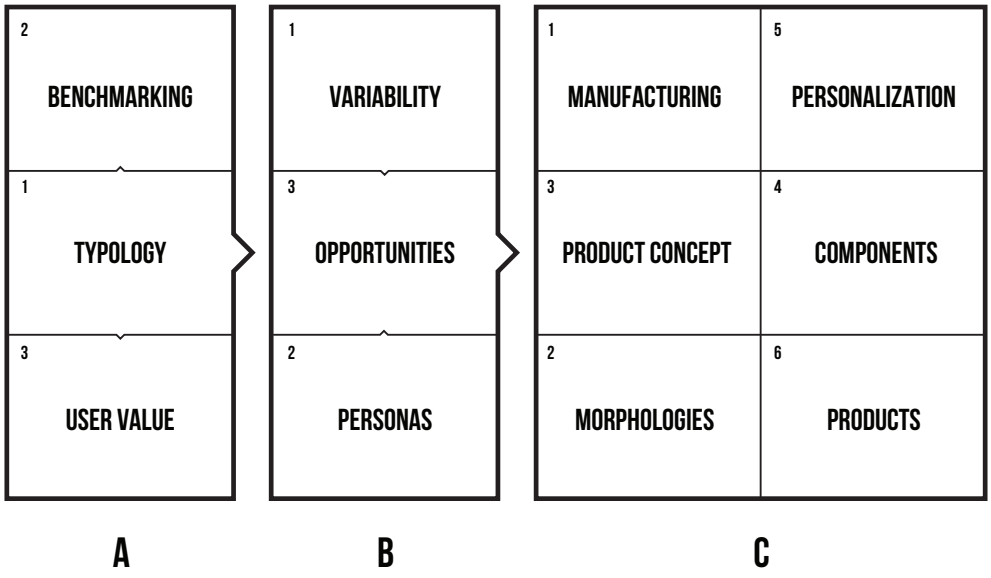


Figure 6. Computational Concept Canvas Credit: The Author

6 Malakuczi's Computational Concept Canvas (CCC) is a pedagogical framework, simplified and illustrated above. CCC is designed to support and stimulate the development of computational (generative or parametric) design concepts. CCC guides Designers through three main 'modules':

A - establishing and justifying a product typology

B - exploring opportunities and reasons for individualisation

C - developing and plan the product life and manufacture

an entirely computer-centred design ecology: first, digital data input; second, digital design modelling; third, digital manufacture. Examples of Computational Design would be; a parametric clothes hook designed to fit any door to be 3D-printed in the home (Payen 2016), or 3D-printed cookie-cutters based on a user-generated photograph (Copy Pastry 2019).

Both of these extant approaches share a 'technology push' model, something which Malakuczi endorses for Computational Design (Malakuczi 2017, S584) but has been broadly condemned in Human-Centred Design (Giacomin 2014, 617). What we are yet to see is the emergence of the 'prosumer' relationship Toffler describes (Toffler 1980; Zamora, Monsen, and von Jungenfeld 2013). In this third scenario consumers enjoy *'just plain custom production'* (Toffler 1980, 183) of wholly bespoke artefacts, at the same speed and cost of current mass-manufacturing. In this scenario the man-thing relationship could begin to heal, as consumers build a connection with manufactured products as more precious and representative of self, akin to those held with objects of craft (Toffler 1970).

In response to the lack of transformative impact from parametric methods and techniques, Malakuczi poses shortcomings within Design education in Art Schools. He offers a teaching framework to educate trainee Designers in the process of designing flexible systems, hoping to inform the next generation of *'metadesigners'* through the use of his framework, the 'Computational Concept Canvas[6]' (Figure 6) (Malakuczi 2019).



Figure 7. Less N°1 Catenary Pottery Printer Credit: Great Things to People



Figure 8. Test N°1: Gauze Credit: Great Things to People

Another approach taken to question the limited adoption of parametric methods and techniques is to question the computer-centred design ecology. This ecology has been previously subverted through investigations into material quality through parametric methods which ask, ‘What if Parametric was Analogue?’ (Great Things to People 2014) (Figure 7), mirroring the physicality of Gaudi’s hanging chains to generate enticing material artefacts (Figure 8).

Beyond the field of material Product Design, creative practitioners have enjoyed an arguably more fruitful relationship with principles related to parametric approaches. I will briefly situate Parametric Design among them in the next section (2.3.1) to more broadly contextualise the approach I have adopted for the purpose of this thesis, which I lay out as part of my Methodology (3.2.3).

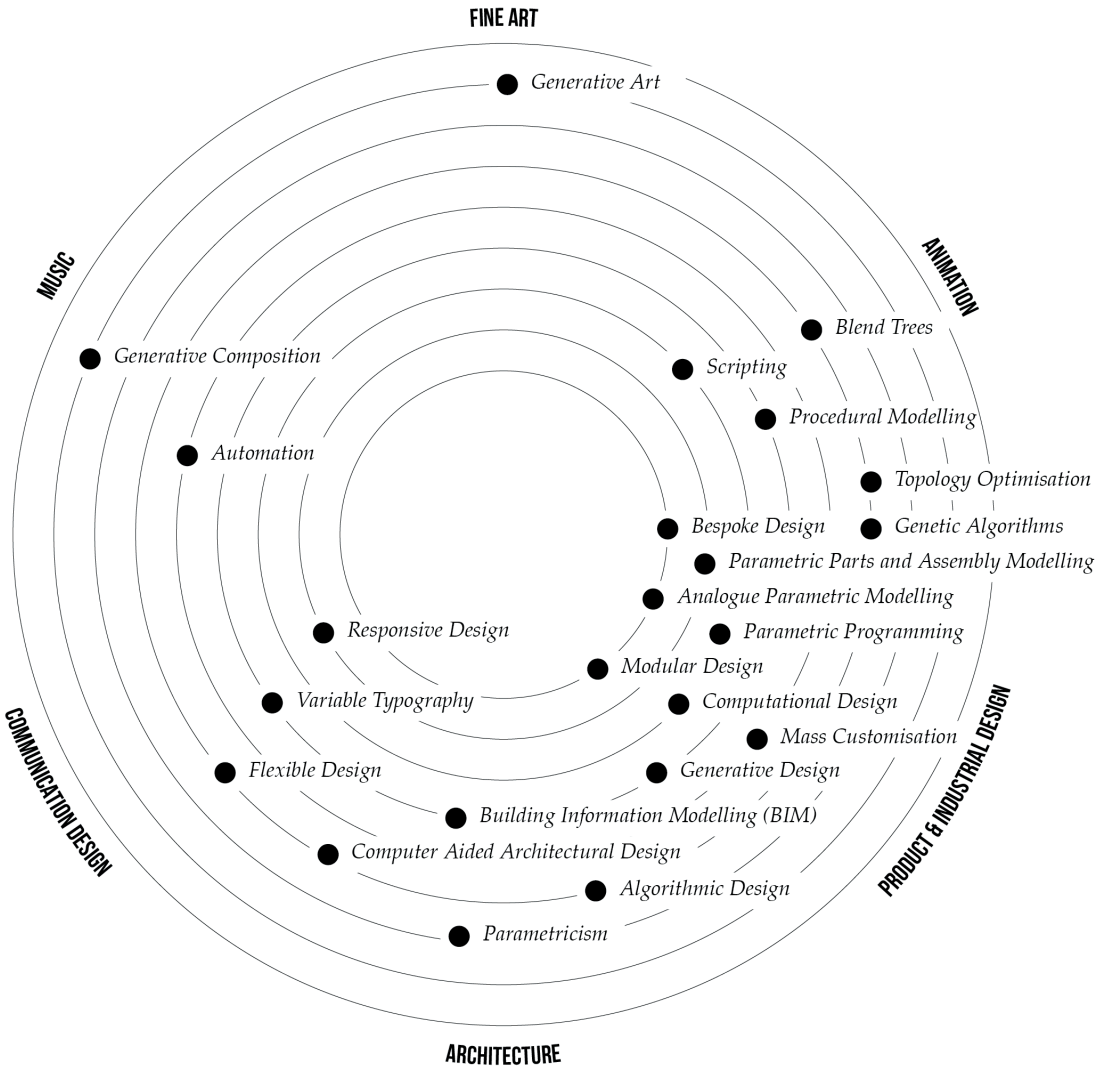


Figure 9. Situating Parametricism Credit: The Author

2.3.1 Situating Parametricism

Product Design is inextricably linked to manufacturing technologies (Bryden 2014), but those technologies should not limit the scope of our design work, especially when Designers adopt inductive, Human-Centred approaches (Giacomin 2014). In the case of Parametric Design it can be argued that the technology-push approach – dominated by a computational ecosystem (Malakuczi 2019) – adopted so far has impeded the development of impactful work.

While little development of Parametric Design has occurred since the idea's inception in the 1930s, related Art and Design practices have seen substantive, research, development and industrial impact from arguably equivalent methods.

Through my doctoral work, I have developed what I refer to as a 'questioning approach' to creative collaboration with the computer within Product Design. To contextualise this approach, I have mapped a range of approaches (Figure 9) that draw from and situate Parametricism, and will briefly discuss examples that are most relevant to my inquiry.

Within Visual Arts practice, Generative Art is the most generalisable term for parametric or *algorithmic* approaches. Galanter defines the term as simply systems-oriented Art practice and also maps its relationship to Industrial Design and Architecture (Galanter 2003).

> *'Generative Art refers to any Art practice where the artist uses a system, such as a set of natural language rules, a computer*

program, a machine, or other procedural invention, which is set into motion with some degree of autonomy contributing to or resulting in a completed work of art.' (Galanter 2003, 4)

Harold Cohen created AARON, an autonomous Art creation computer program for which, in part, he was the recipient of ACM's Distinguished Artist Award for Lifetime Achievement (ACM SIGGRAPH 2014). Generative Art can also be performative, with live-coding visual languages such as VVVV and Max/MSP becoming increasingly common among an the emergent 'Demo Scene', at festivals, and in live-streaming (Galanter 2003; Hansen, Nørgård, and Halskov 2014).

Generative Art can also be driven by analogue systems; Hans Haake has used the natural process of water's condensation cycle to create living sculptures in constant flux (Barcelona Museum of Contemporary Art 2000). Each of these artworks deal with Artists handing over creative control to a third party, *'The truth is that generative Artists skilfully control both the magnitude and the locations of randomness introduced into the artwork'* (J. Bailey 2018).

Generative methods in Animation for video games allow users' inputs to create novel animated transitions between states without the need for animators to animate each scenario for characters, increasing realism as well as efficiency (Mccann and Pollard 2007). Procedural textures allow animators to apply textures with no limit on resolution or tiling. These textures are created by stacking mathematically generated functions resulting in realistic imagery for any application

(Hu, Dorsey, and Rushmeier 2019).

Variable fonts give Graphic Designers the ability to define a font's attributes (weight, height, slant, kerning etc.), which allows both limitless combinations for custom applications and also typography that responds dynamically between states in responsive web-design (Monotype 2019).

Electronic and acoustic musicians and composers have introduced algorithmic determination for creative exploration, taking advantage of the mathematical quality of music, from Bach's Fuges to the contemporary work of composers like Brian Eno and John Cage who each use techniques as varied as Cellular Automata, Fractals, L-systems, and Chaos Theory (Eno 1996; Galanter 2003).

In the next section I explore how six relevant extant projects navigate the links between *Individualisation, Co-Creation, and Materiality.*

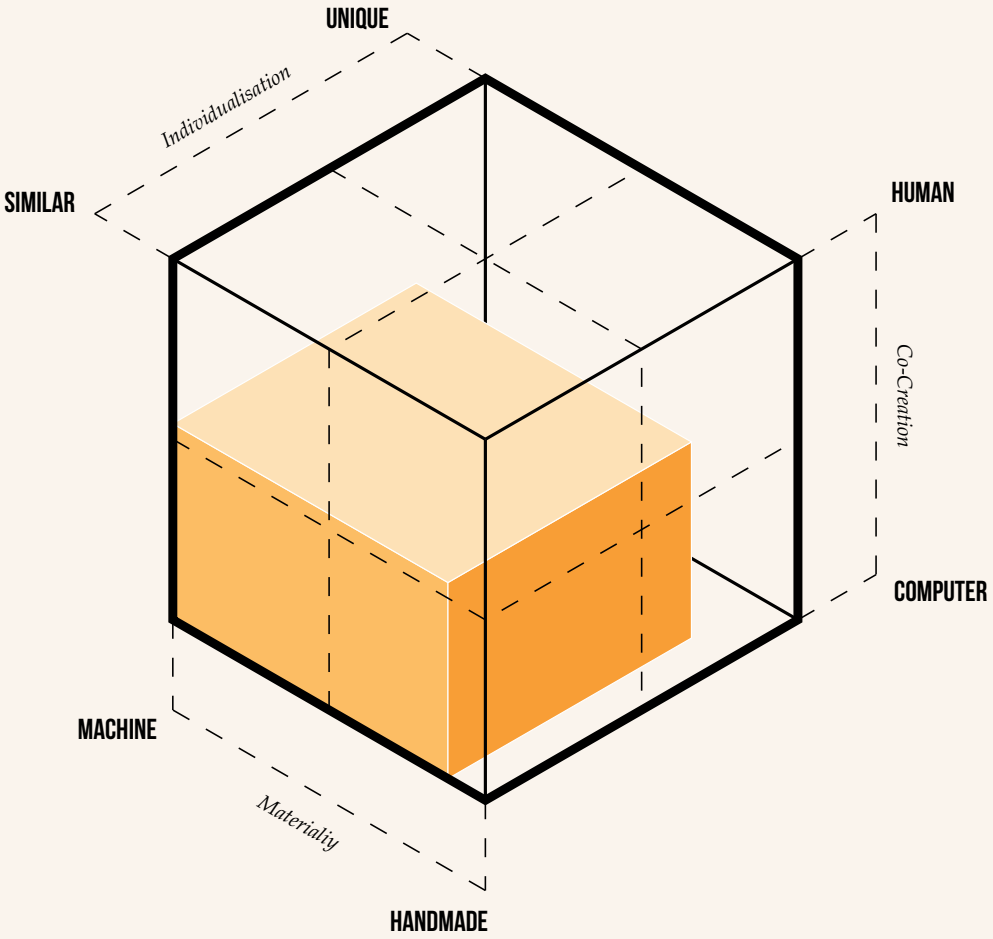


Figure 10. Map Example Credit: The Author

2.4 Mapping Relevant Design Work

I have chosen three categories by which to compare projects in this section, represented on a visual map (Figure 10). Each of these categories charts a tension within the presented literature regarding Person-Centred Care, Creative Ageing, Design for Dementia, and Parametric Design – and through juxtaposition I have plotted these projects relative to one another to illustrate the design context of my inquiry. The categories I explore for each of these projects are as follows:

Individualisation

The degree to which individualisation is a defining feature of the product experience, given its product category.

Co-Creation

Looking at how other people or computers are used as collaborators in an artefact's development, specification, or co-design.

Materiality

Again, the consideration of materiality and craft in the manufacture may be interpreted as *Handmade* or *Machine* to any extent. This has to do with the inclusion of hand crafted or machined parts, as well as natural or artificial materials, given the relationship between Care and materiality (Brownlie and Spandler 2018; Buse, Martin, and Nettleton 2018).

I compare the interpretation of these themes, between chosen artefacts designed for People with Dementia, other bespoke Design



Figure 11. Contextual Review Map Credit: The Author

for Dementia projects (that may not include parametric approaches), and Parametric Design projects that are relevant to my methodology. I have chosen the following projects either for their influence in their relevant field or relevance to this Contextual Review in terms of positioning my inquiry. The examples to follow are part of a larger visual mapping exercise that I used for sense-making and for navigating relevant projects and literature in the early stages of my doctoral research (Figure 11), included as an appendix (9.2) to this thesis.

This framework allowed me to strategically synthesise research covered so far in this chapter, by comparing disparate projects from the established contextual position of exploring the common tenets and opportunities of Person-Centred Care and Creative Ageing, alongside Human-Centred Design and parametric methods and techniques.



Figure 12. Personhood in Dementia Credit: Jayne Wallace

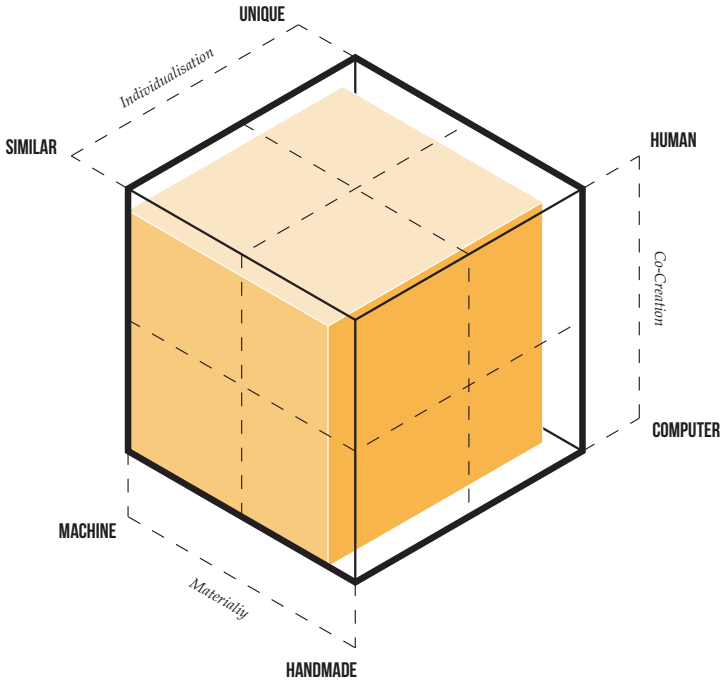


Figure 12(b). Personhood in Dementia Credit: The Author

Personhood in Dementia

Jayne Wallace (2013)

Individualisation

Using probe methods common in the field of Human-Computer Interaction (Gaver, Dunne, and Pacenti 1999), Wallace created deeply personal designed interventions (Figure 12). Material choices, interactions, product categories, and research methods themselves were geared towards individual participants with Dementia, resulting in fundamentally bespoke outcomes that border on portraiture.

Materiality

Wallace, a jeweller by training, typifies preciousness through these artefacts. Rare metals, the form of traditional silhouettes, mechanised cases for exquisite objects, each one handleable, strokable and refined to reflect Wallace's designerly interpretation of Personhood.

Co-creation

The designing phase of Wallace's work is fundamentally co-creative, through a longitudinal creative relationship with participants.
Though the crafting of these artefacts is not itself participatory, the finished pieces are by no means static, coming alive in use through mechanical, sensory, and technological interactions.



Figure 13. Hyper-Personalised Cutlery Credit: Ethan Henley

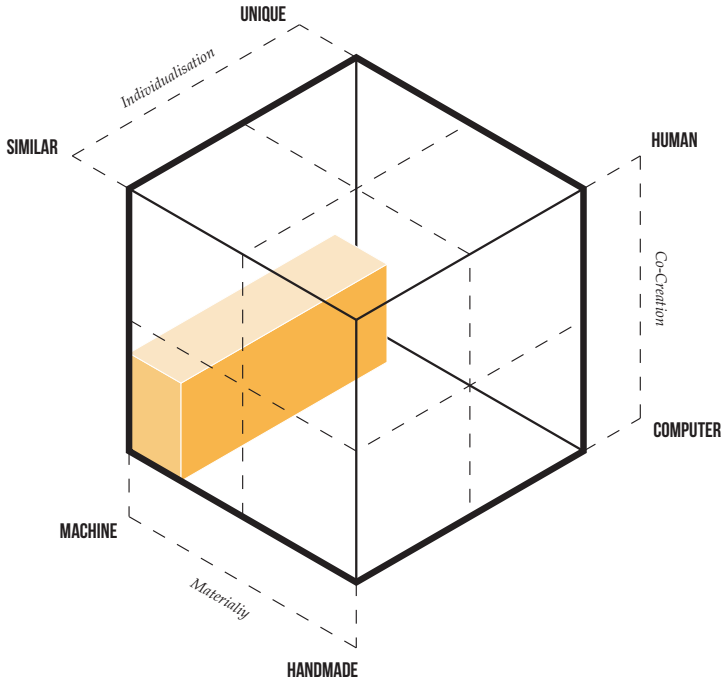


Figure 13(b). Hyper-Personalised Cutlery Credit: The Author

Hyper-Personalised Cutlery Set for Stroke Patients. Ethan Henley (2018)

Individualisation

Using typically recognisable Parametric techniques (Grasshopper for Rhino) these cutlery sets are created for ergonomic customisation in an aesthetically sensitive manner which Henley calls hyper-personalisation. Intended to rehabilitate stroke patients the cutlery is a bespoke therapeutic intervention (Figure 13).

Materiality

Prototypes presented in the associated publication are made from 3D printed plastic, with finished artefacts to be manufactured in stainless steel, echoing traditional cutlery. Notably, no aesthetic individualisation is possible within Henley's design either in material or finish.

Co-creation

The specification of cutlery is facilitated by a therapist, and involves patients inputting ergonomic data into a web-based interface which corresponds with the digital model created in Grasshopper.



Figure 14. Woosh Chair Credit: James Leckey

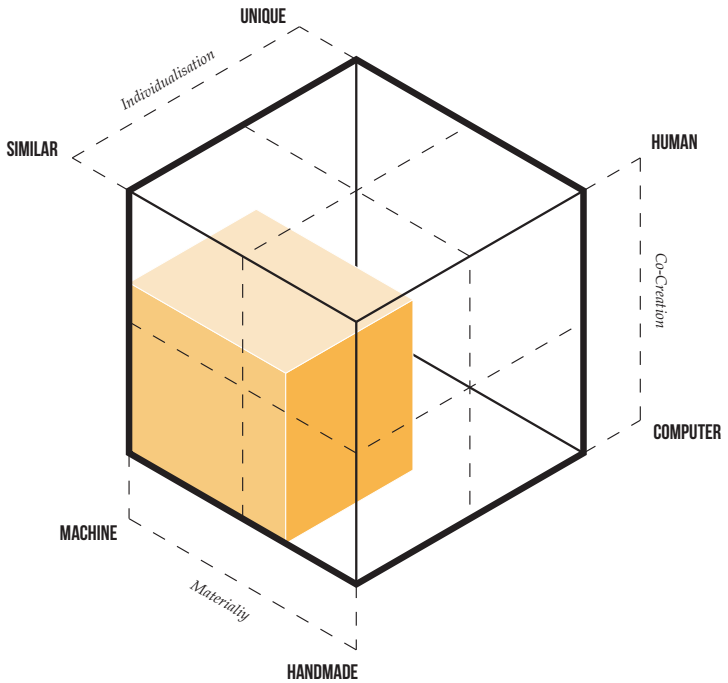


Figure 14(b). Woosh Chair Credit: The Author

Woosh Chair

James Leckey (2018)

Individualisation

Lecky's Woosh chair is designed for children with cerebral palsy, these bespoke pieces were born by Lecky's moving away from a 'Design for All' approach, in favour of Modular Design (Figure 14).

Materiality

Presented by Pullin as an allegory of *'The Flying Submarine'* (Pullin 2009, 75–77), Lecky's departure from universal design affords a much richer material palette, appropriate for a domestic context and the young user group. With the traditional approach used in wheelchair design Lecky was limited to aluminium or steel extrusions to support all of the necessary mechanical fixings. Taking a modular approach, he was able to adopt a broader material palette, mirroring home furnishings and children's toys in painted wood and leather. He is also able to likewise create a more expressive form.

Co-creation

Chairs are customised and adjusted over time through collaboration with a therapist.



Figure 15. Fidget Widget Toolkit Credit: Active Minds

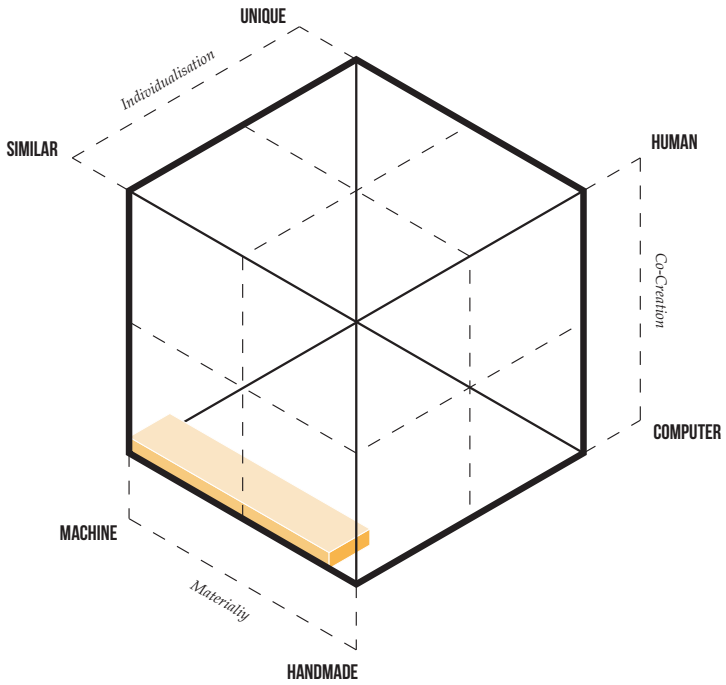


Figure 15(b). Fidget Widget Toolkit Credit: The Author

Fidget Widget Toolkit

Active Minds (2019)

Individualisation

Though not individualised themselves, Active Minds' Fidget Widgets are intended to encourage and normalise the behaviour of fidgeting as a creative mode of sensory expression (Figure 15). Designed for People with Dementia, these artefacts stand out among a homogeneous range of Assistive Technologies for their open, playful aesthetic while avoiding the infantilising design vocabulary of children's toys.

Materiality

Machined wood, finished to a high shine gives the pieces a satisfying, percussive solidity. Their simple and modern presentation is more akin to a complex puzzle than a child's toy, and the generative influence of the materiality of these objects leads to their success as designs. Using designed signifiers to encourage playful exploration without infantilisation represents a rare success for these artefacts, especially considering their scale of production (mass-production).

Co-creation

These pieces are not co-created though they are intended to encourage creative exploration through fiddling.



Figure 16. Faceture Vases Credit: Phil Cuttance

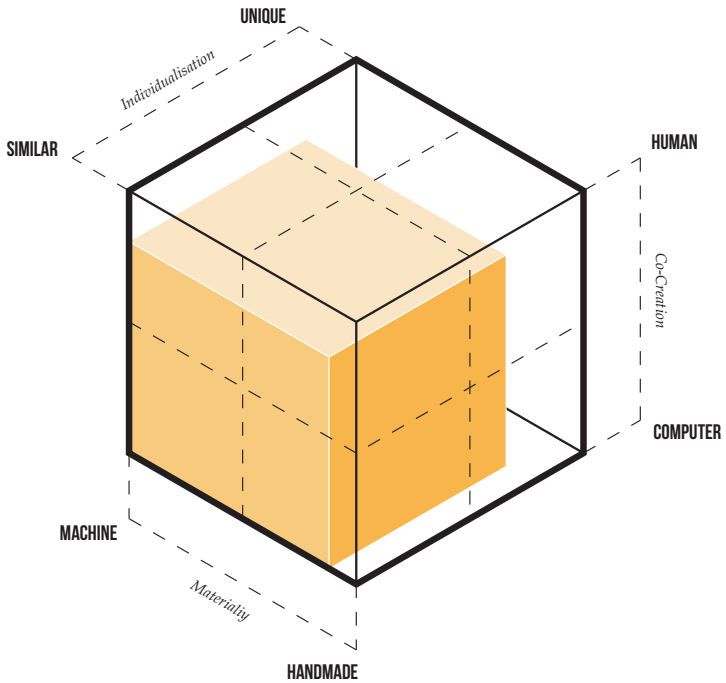


Figure 16(b). Faceture Vases Credit: The Author

Faceture Vases

Phil Cuttance (2012)

Individualisation

Each piece is unique, while completely avoiding the need for a computer to specify the design. However, a strongly coherent visual language makes each piece instantly recognisable as Cuttance's.

Materiality

Flexible plastic moulds are pre-scored with Cuttance's iconic triangular grid, which can then be taped and squashed into any desired form (Figure 16). Cast Jesmonite is poured by hand in a hybrid slip casting/rotational moulding process, each piece being rotated by and for around 15 minutes until set.

Co-creation

Rather than simply selling vases, Cuttance now offers vase-making workshops from his London and Auckland studios. This model evidences the value not only in the finished artefact, but in the co-creative stage itself common to Creative Ageing, but firmly within the field of Product Design.

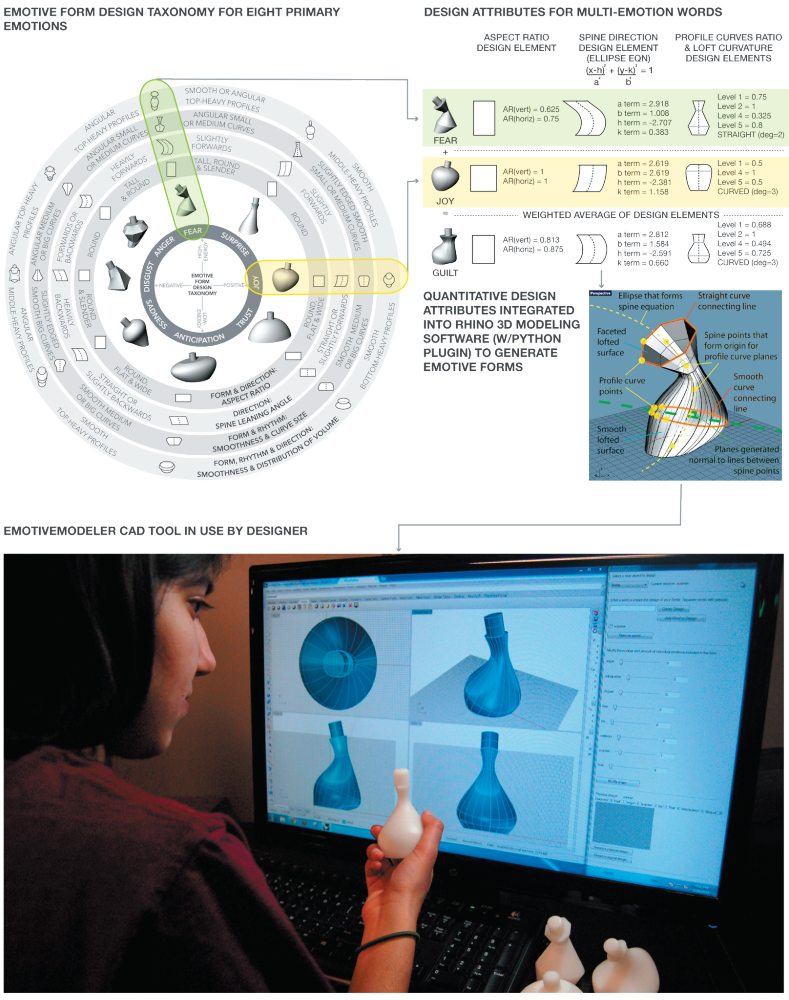


Figure 17. Emotive Modeller Credit: Philippa Mothershill

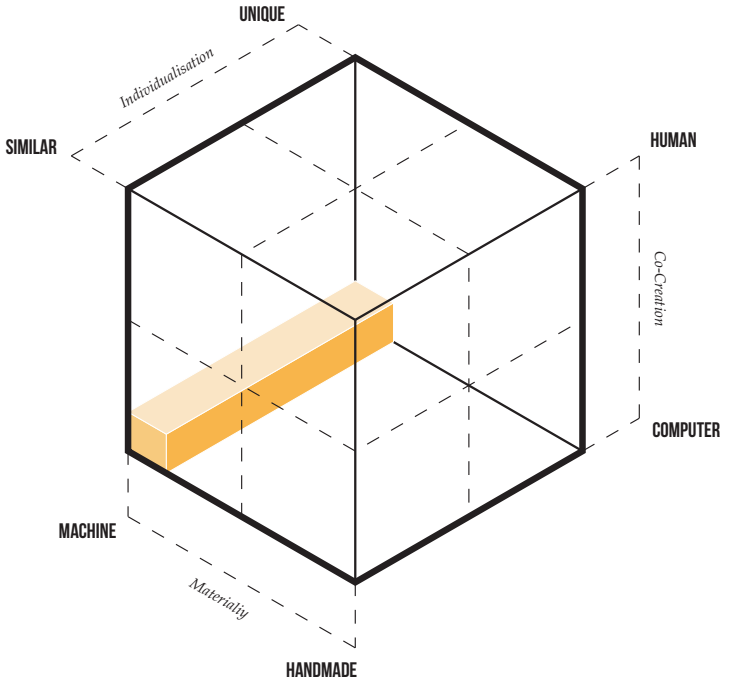


Figure 17(b). Emotive Modeller Credit: The Author

Emotive Modeller

Philippa Mothersill (2014)

Individualisation:

This project from MIT Media Lab's Philippa Mothershill bring a unique approach to what is otherwise a typical Computational Design project (Figure 17). Vessels are parametrically modelled in Grasshopper for Rhino, but rather than using geometric commands to generate and alter the forms, Mothershill uses emotional inputs mapped to linear parameters through a process of 'synesthetic-communication' to then map those statements onto characterful deformations of the digital form (Mothersill 2015).

Materiality:

Artefacts are 3D printed in plastic.

Co-creation:

Users specify their mood on a 1-10 scale using value statements such as *anger, disgust,* or *joy*, on a digital web-based user interface to generate the resultant forms.

2.5 Summary

In summary, the extant practice and research presented in this Contextual Review positions Creative Ageing as a practice of Person-Centred Care, endorsing playful creativity and self-expression to foster increased wellbeing and Quality of Life within a medicalised context. Creative Ageing is suited to People with Dementia, whose often heightened emotional sensitivity and poetic modes of communication can be embraced through exploratory creative practice (Killick and Allan 2011).

Design for Dementia literature calls for increased opportunities for People with Dementia to meaningfully impact the designed environment through individualisation and participation. Extant co-design work in this area shows examples of the impact of Design practice in the context (Wallace et al. 2013) but is met with calls for new methodological innovations to bring these benefits to a wider audience (Kenning 2018).

The nascent field of Parametric Design offers as yet underexplored opportunities for the individualisation of designed products (Malakuczi 2019), but it is limited by its unquestioningly digital ecosystem. The projects I compared in the last section of this chapter illustrate ways in which the themes of Individualisation, Co-Creation, and Materiality have been explored using these methods (Figure 12(b)-17(b)). They highlight opportunities for this investigation to bring a Human-Centred, inductive, and aesthetically considered approach in concert with Parametric techniques through to allow People with Dementia to meaningfully individualise elements of the designed environment of care.

These Design contexts and methods each inform my sensibility and approaches to practice-based research in the context of Creative Ageing and Dementia, which I outline in the next chapter of this thesis (3.0).

iii. How I came to my PhD

Since Art School I have worked as a Product Designer alongside Artists. In industry my time was spent making ambitious artworks and installations feasible and reliable while refining and communicating the concept at their core. Following years working with retail, fashion, and car brands I was lucky enough to work with some patients in UCLH's Paediatric Oncology department, after which I started looking for more Design Research opportunities.

I think with my hands. I have always used drawing, fiddling, and making as ways of understanding the world. When I am trying to come to terms with a problem I grasp at the air like a new-born, searching about for an object which will help me find a solution.

These are the sensibilities I brought to my research, as I tried to understand and explore the designed environment with and around People with Dementia.

3.0 Methodology

In this chapter, I outline my interdisciplinary approach to practicing Design-led inquiry, or *Research through Design* (RtD), combining Ethnography and Human-Centred Design to work creatively alongside People with Dementia.

I firstly ground my epistemological and analytic positions. I explain how, in philosophical terms, Phenomenology (3.1.1) has provided me with appropriate sense making tools that foreground the lived experience of individuals. I explain how two key Phenomenological terms; Habitus (3.1.1.1), and Embodied Consciousness (3.1.1.2) are central to my approach for working in Residential Care Settings.

My principle analytic approach was guided by Hermeneutics (3.1.2). Hermeneutic Phenomenology foregrounds the significance of interpretation and acknowledges that despite pursuing Empathetic relationships with participants I haven't been able to directly study people's *experiences*, but I can study *expressions* of those experiences. Systematic use of the Hermeneutic Circle (Gadamer 1976) has informed my novel analytic methods, built upon extant visual and mixed media methods (Plunkett, Leipert, and Ray 2013; Pink 2015; Hanna and Mwale 2017; Braun, Clarke, and Gray 2017a).

I then describe my use of Ethnography (3.2) for an Embedded, longitudinal engagement in a Residential Care Setting. Ethnography places focus on interpersonal and material interactions (3.2.1), and

the context of individuals' expressions of experience with a deliberate sensibility toward the sensory environment (3.2.2).

I then describe my Research through Design (RtD) approach (3.2.2). Principally, I combine Human-Centred Design (2.2.2) and a critical engagement with parametric methods and techniques (2.3). I describe how the material engagement of Design is key to my practice as a Researcher, using digital and physical design methods and material as forms of documentation, analysis, articulation, and communication (3.2.2). I then define Parametricism as a distinct set of sensitivities and techniques (3.2.3).

Next, I outline my approach to Ethics in practice (3.3). My doctoral work highlights a number of ethical tensions encountered working alongside People with Dementia. I outline my adaptive approach to consent and data collection and how collaboration with my research partners and Care Home staff shaped my approach to Ethics in practice.

Finally, I summarise my interdisciplinary methodological approach in relation to my research questions. I contextualise the relationships between the philosophies from which I borrow, and how my intended adaptation of these is deliberate and appropriate to the methods described in the subsequent chapters of this thesis.

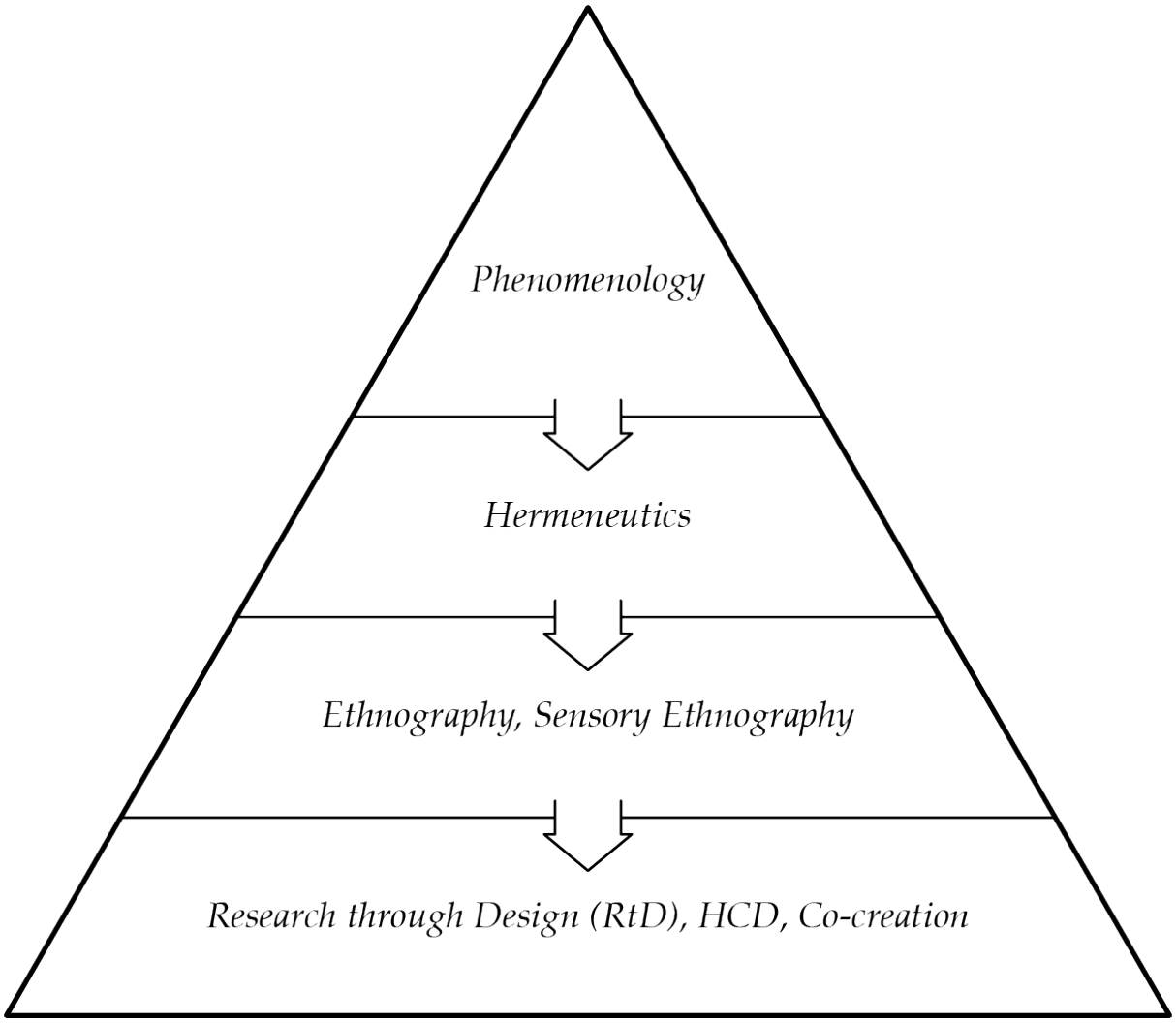


Figure 18. Methodologiacal Elements

3.1 Epistemological and Analytical Approach: Experience, Expression, and Environment

In this section I ground my epistemological position on knowledge construction in Phenomenology, as it provides me with conceptual and analytic tools appropriate for working creatively alongside People with Dementia. Phenomenology foregrounds the lived experience of a group of individuals whilst acknowledging the broader social, political context of their lives within the Care Home environment.

Within Phenomenology, this thesis is guided by Hermeneutics (Caputo 2018) to provide analytic tools for studying lived experience whilst acknowledging my own biases as a Researcher (shaped by my own experiences). This interpretative stance enabled me to identify and address ethical tensions in the studies and work reflexively towards designing for inclusivity using co-creative methods. I have chosen to illusrtate how these different methodological elements described in this thesis sit together (Figure 18).

3.1.1 The Study of Experience

Key ideas within Phenomenology have offered me epistemological and methodological orientations that align with the ethos of Creative Ageing, Human-Centred Design, and Person-Centred Care.

Phenomenology focusses on the conscious experience of phenomena, contextualised in the world that individuals occupy together (Orbe 2009; Dudovskiy 2018). Husserl, considered to be the founder of modern Phenomenology, defined it as the science of *'the essence of consciousness'* (Husserl 1913/1962).

I've chosen to build my methodology around interpretative Phenomenological approaches (Smith, Flowers, and Larkin 2009) allowing me to acknowledge the validity of the lived experience of a community of People with Dementia, whilst acknowledging the intersubjectivity of their expressions of experience, and my interpretation of those expressions through systematic, critical reflections. The acceptance of individuals' lived experience is key to Person-Centred Care; Kitwood calls this *Validation*:

> *'(T)he heart of the matter is acknowledging the reality of a person's emotions and feelings and giving a response on the feeling level. Validation involves a high degree of Empathy, attempting to understand a person's entire frame of reference… when our experience is validated we feel more alive, more connected, more real.' (Kitwood et al. 2019, 108)*

Relevant to the context of Creative Ageing, Dewey (1934) positions the creation and critique of artworks in Phenomenological terms. Dewey sees creative Art practice as reciprocal, a fundamental act of communication between individuals *'the actual work of Art is what the product does with and in experience.'* (Dewey 1934, 1). Dewey argues that socially isolating Art has far reaching implications for the community, and that access to Art should be a right (Dewey 1934). Dewey criticises systems of control, empiricism and capitalism, for restricting access to the Arts. Critically, Dewey argues for interaction in the world and work of the Arts that has enduring relevance, arguing Art requires passive audiences to become active, receptive, actors. This is particularly resonant in a Dementia Care context

where passivity presents barriers to creative practice and engaging, stimulating, communication (All-Party Parliamentary Group on Arts Health and Wellbeing 2017, 132–133).

> *'Art is the living and the concrete proof that man is capable of restoring consciously.' (Dewey 1934, 26)*

Further, Dewey argues idealistically for the transformative power of Art to enlighten and elevate. *'The moral function of Art itself is to remove prejudice, do away with the scales that keep the eye from seeing, tear away the veils due to wont and custom'* (Dewey 1934, 338). Dewey's understanding of the transformative power of Art and creativity aligns closely with the aim of Creative Ageing to positively impact relationships between People with Dementia and their broader Care networks (Mondro et al. 2018). Each of these key concepts informs my methodological approach to understanding the power of creativity through reciprocity in a Care context.

In setting out their approach to Experience-Centered Design, McCarthy and Wright build on Dewey's concept of experience, highlighting the ethical responsibility of working alongside others in this way, calling for Researchers to recognise and value individuals as simultaneously aesthetic and ethical, *'One's ethical sensitivity to an other is intimately related to the creative act of authoring self in other'* (McCarthy and Wright 2004, 67).

Two significant concepts within Phenomenology introduced in my Contextual Review, *Habitus* and *Embodiment*, which form

the foundation for understanding an Ethnographic sensibility also centrally informing my approach, which I outline later in this chapter.

3.1.1.1 Habitus

The Phenomenological concept of *Habitus* (Mauss 1934/1973) is a way of illustrating the interplay between influence and action in a given context. Habitus helps inform my methodology through articulating, in philosophical terms, the relationships and resulting interactions between people, designed environments, power structures, socio-political structures, and individual biographical narratives. Habitus explicates how individuals' behaviour shapes an environment, and how that environment also influences likely behaviours in a manner of circularity. As such the Habitus has been facetiously described by contemporary scholars as '*structured structuring structures'* (Crossley 2001, 84). Habitus informs my approach to Embeddedness (Ghodsee 2015; Pink 2015) in practice, and how I interpret designed signifiers (Norman 2013) in the context of Care.

When he developed the idea, Mauss illustrated the potential of Habitus to impact significantly upon notionally physical, mechanical behaviours through socio-cultural influence. Mauss describes how the gait of French women changed due to the popularity of American cinema in Europe (Mauss 1934/1973, 72) as an illustration of the power of socio-cultural phenomena to affect physical and Embodied behaviours. As Mauss described Habitus, it allows us to question the degree to which our behaviour is determined by the self or by our environment. This is useful in informing my methodology for

interrogating how some behaviour in a Care context may be arbitrary - or a result of socio-political influences, in a way that is limiting.

Bourdieu developed the concept of the Habitus further by actualising a model of influences interacting in a context of praxis [field] guided by sets of rules [doxa]. Bourdieu explored how we exchange Economic, Social, and Cultural Capital for Symbolic Capital, in any given Cultural Field (Huang 2019). Different Habiti form the social and economic conditions which determine what may be considered reasonable or unreasonable actions within any given context (Bourdieu 1977/1990). Bourdieu's understanding of Habitus as the meeting between individual free will and the unseen socio-political structures around each individual, informs my approach to meeting People with Dementia *'where they are'* psychologically (Chalfont 2007, 118), in a given context and accepting their lived experience as valid and unique.

3.1.1.2. Embodiment

Merleau-Ponty argues that Embodied, pre-reflective consciousness is a fundamental aspect of being, and functions alongside cognitive consciousness. Merleau-Ponty explains *'the ambiguity of being-in-the-world is translated by that of the body'* (Merleau-Ponty 1945, 98), understanding the body as the primary mode through which we communicate with the world and generate meaning. The primordial and socio-cultural importance of Embodied action is critical to situating my methodology as *Emplaced* (Ghodsee 2015; Wilson 2018) as understood through Habitus. Non-verbal communication, and gestural expression, through creativity and the designed

environment, are considered equally valid to verbal or textual forms of expression through my research and have allowed me to devise bespoke research methods in response to these creative modes of communication.

Mauss explains that consciousness is not merely cognitive but is born of the intersection of elements; social, psychological, and biological (Mauss 1934/1973). Mauss' challenge to the primacy of cognition and memory equating to Selfhood is relevant to the contemporary stigmatisation and ongoing marginalisation that persists around People with Dementia and has informed the development of distinct Ethnographic methods that foreground Embodied Consciousness (Kontos 2004; Basting 2003).

Kontos (2005) argues that an Embodied Selfhood is essential to each individual and not exclusively via the domain of the mind, but through the lived experience of the body. Kontos argues that the derivation of Selfhood from cognitive function, or a lack thereof, denies the primordial and socio-cultural significance of the body as being essential to the self, and Embodied action as expression of Selfhood. She situates the significance of Embodied Selfhood from two sources: primordial, bodily, pre-reflective action, and socio-cultural, situated, expressive action and innovation (Kontos 2005).

Kontos builds upon Kitwood's concept of Personhood, highlighting the primacy of Embodied expression, arguing that *'conceptualising Selfhood as essentially "the human being in relation to others" (Kitwood and Bredin 1992: 275) is to miss something vital about*

Personhood – namely, how capacities and the senses of the body are central to the very notion of Selfhood and are not derived from social interaction but rather from the inherent nature of our Embodied existence' (Kontos 2003a). Kontos' focus on the validity of Embodied consciousness, and the primordial significance of the body as a manifestation of Selfhood informs my approach to designing in the context of Care, being with Residents, and introducing social and sensory artefacts into the environment through Embodied Ethnographic practice (Kontos 2004). Dewing takes this point further, arguing that Kitwood's assertion of Personhood as a status or gift exchanged by people could arguably lead to further exclusion, instead choosing to define Personhood in terms that cannot be given or taken, but are Embodied by each individual; *'a moral entitlement rooted in an Embodied self and manifested through social relations based on a concern for others'* (Dewing 2002, 162) which informs my understanding of Embedded Ethnographic research (Ghodsee 2015) within a sensory context (Kontos 2004; Pink 2015).

3.1.2 Analytic Interpretation of Expression

Hermeneutic interpretation forms the basis of my analytic lens. This approach appreciates that whilst individuals' experiences are valid, I can only hope to interpret expressions of those experiences, rather than the experience itself (Caputo 2018). In relation to Phenomenology, this means that whilst undertaking and analysing research throughout my doctoral work I am looking to interpret the meaning and significance of people's expressions of experiences with phenomena, an approach which has been adopted previously in the context of aesthetics in Dementia (Siles González and del

Carmen Solano Ruiz 2011).

Hermeneutics typically concerns itself exclusively with analysing textual data, however I chose to expand my interpretative methods, informed by Hermeneutics, to include all forms of verbal and non-verbal communication inclusively in the analysis.

The *Hermeneutic Circle*[7] is about situating and contextualising data through systematic repetition. Each small data point, such as a sentence of a transcription, can be read and reflected upon. That reflection will change the readers' understanding of the whole data set, e.g. the whole transcription, or study, and that understanding will inform the interpretation of the initial data point differently upon re-reading, and so on. This iterative process was familiar to me as a Product Designer and allowed me to gain insight beyond the data gathered, through plotting that data's context before re-examining it through methodical, systematic repetition, moving between smaller and larger units of meaning in order to better interpret the meaning of each.

7 The Hermeneutic Circle was developed as a means by which to interpret religious texts, and was developed outwardly by scholars like Heidegger and Schleiermacher (Caputo 2018, 35) to its' Ontological conclusion, that studying every element of the natural, cultural, or physical world contributes to our understanding of God, as they wrote at the time.

3.2 Research Methodology

The methodological approach formulated for my empirical studies is grounded in key theoretical influences and my research partnership with Equal Arts. Taking an Embedded approach as a volunteer with Equal Arts as a Creative Ageing charity allowed me to explore shared motivations between my applied research and Equal Arts' practice. This was achieved through our shared material language as creative practitioners as well as finding ways to leverage Design value within an equitable partnership.

My Ethnographic inquiry was built around Embodied Ethnographic practice (Kontos 2004) as described earlier, as well as Sensory Ethnography (Pink 2015), with a sensibility geared towards the individual as situated in socio-political context, through the concepts of Emplacement (Garland-Thomson 2011; Turner 2006) and Habitus (Maggio 2018). Kontos' positioning of the senses as a primordial way of experiencing the world, as central to Embodied Selfhood (Kontos 2004), reinforces the need to explore modes of sensory communication as not only inclusive, but ethical and essential to maintaining Personhood.

The practice-based component of this inquiry can be described as Research through Design (RtD) (Durrant et al. 2017; Stappers and Giaccardi 2017). Design was practiced as a form of *Embedded inquiry* in Care Settings, in which I responded through making co-creative interventions. Visual Research (Gray and Malins 2004) methods informed my RtD practice, to be systematic in developing novel Design-led methods, and to employ making as an exploration

of generated knowledge.

My Design Research practice informs my critical or ‘questioning approach’ to parametric methods and techniques. Later in this chapter, I define Parametricism in response to my Embedded research practice, as a distinct influence on the Design Research methods that I devised (3.2.3).

3.2.1 Embedded Practice: Emplacement, Sensitivity, and Care in Context

Pursuing Empathetic (C. R. Rogers 1974) relationships with the people involved in my research is central to my approach. My intention was to undertake fieldwork by being with participants in concert to their experience, rather than seeking to force them towards one more in line with my own. This meant letting Residents lead our interactions, and not focussing on trying to promote remembering through interventions but rather to promote joyful experiences in the moment.

The term Empathy itself is not without controversy in this context. Kitwood warns against the oversimplification of the term; *‘Empathy does not mean feeling what another person is feeling’; ‘(i)t is unlikely that this is ever possible because we are all so different’* (Kitwood et al. 2019, 128). Likewise, the term has been criticised for over-use and misappropriation within Design and HCI research, specifically in a Design for Disability context. Bennett and Rosner

condemn common Design methods such as Disability Simulation[8] for imitating Empathic practice while commonly privileging Designers' interpretation of the disabled experience above first-hand accounts, leading to the deepening of stigmatising stereotypes through a traditional *Designer-User* relationship (Bennett and Rosner 2019). While embarking upon research alongside People with Dementia, my intention was to nurture a Rogerian Empathy, in line with Kitwood's interpretation, described as a way of being with another *'that matches the flow of visceral experiencing that's going on within, a person has a very sure knowledge of that flow and can really tell when you're speaking to it'* (Rogers 1974 12:27). Knowing that I cannot hope to feel what others feel, and that my account of events is representative of both my experience and my position – also recognising my professional background as a Product Designer, I chose to write the account of my first study as an Autoethnography, rather than an Ethnography, the precise methods of which I will cover in the next chapter (4.0).

Emplacement and Embodied Selfhood (Kontos 2005) go hand-in-hand; understanding experience in a context, environmentally and bodily. Through exploration of each over time, I aimed to generate insight into the relationship between them, Habitus. A longitudinal approach to Ethnographic research gave me the opportunity to become Embedded with communities of People with Dementia over time. This allowed me to build a reciprocal relationship with

8 Disability Simulation is common in design studios and is something I witnessed as Art Student; e.g. Designers simulating blindness by working in a darkened environment, or wearing a blindfold, rather than seeking input from a person with lived experience of blindness. Not dissimilar techniques are also being employed with an increasing number of VR simulations training tools to mimic the experience of living with Dementia, such as Alzheimer's Society's 'A Walk Through Dementia' app (Alzheimer's Society 2016).

the people I met, and with it the potential to scrutinise how those relationships changed, developed, and influenced one another. Ghodsee encourages Ethnographers to record and communicate the historical and cultural context of places alongside those of people in Ethnographic accounts, as well as in fieldnotes (Ghodsee 2015, 41–50). I found this a critical part of communicating my findings, especially within a material or designerly way of knowing (Cross 2001). In so doing, I understand that my thesis is highly specific to the individuals, location, and cultural context in which I conducted my research – though also offering higher-level transferable insight through discussion.

Multisensory stimulation and creative approaches to non-verbal communication are intrinsic to Person-Centred methods (Killick and Craig 2012) and Creative Ageing (Thwaite 2017). Sensory Ethnography (Pink 2015) brings interdisciplinary methods to contemporary Ethnographic practice, with the intention of building understanding among societal groups. Pink invites Researchers to look for the connections between sensorial experiences that may have been previously siloed. For example, the sensory experiences beyond visual sight associated with a photograph may include evocative personal or social memories of what the photograph depicts; there may have been imaginative staging around the capture of the photograph, and smells and textures associated with these memories in time, or sounds and tastes from the stories which arise around what could be thought of as a purely visual artefact (Pink 2015). This approach does not prescribe particular methods, rather it calls for Researchers to be open to exploring and connecting the

sensory elements of Ethnographic engagements, most commonly through methods derived from Creative Arts practice, like drawing, making, photography and video.

3.2.2 Designerly, Practice-Led Research

My doctoral work has been practice-led since its inception. Research through Design (RtD) has been demonstrated to accommodate a breadth of designerly approaches that can be purposefully applied in qualitative research contexts (Durrant et al. 2017; Findeli et al. 2008). Findeli defines RtD as a research process that is *'project-grounded'* in such a way that it supports the Design process and also reflects a Designer being responsive to a setting or challenge, not the other way around (Findeli et al. 2008).

Findeli's priorities align with my own, hoping to add a systematic research methodology to my intuitive design approach developed through professional experience as a Product Designer. This systematic approach to Design-led inquiry allowed me to contend with the application of the questioning approach taken to parametric methods and techniques as a distinct methodological approach which I outline in the next section of this chapter (3.2.3) in a Care context, principally through the latter two empirical studies of this thesis.

RtD also provided a conceptual framework to interrogate how Design practice can be interventional and transformative, shaping users' lived reality, not just to become a part of it. This perspective allowed me to develop the potential for reciprocity through Design methods (Escobar 2018; Manzini 2015), and can be seen as a world-building

understanding of Design as an ontological position (Fry 2013). Understanding Design as a tool for social and political change (Ehn 2008; Tunstall 2019) offers me a productive direction from which to approach a socio-political understanding of Dementia (Shakespeare, Zeilig, and Mittler 2019).

Combining Ethnographic and Design-led Research situates my inquiry as interdisciplinary. In the Care Home I was able to use Visual Arts techniques while facilitating Creative Ageing workshops alongside professional Arts practitioners, as well as offering Design skills and expertise when preparing workshop materials, and Design input to generated artworks where appropriate. Through my fieldnotes I was able to sketch and collect visual data alongside written accounts, often the most intuitive way of documenting non-verbal or Arts-based interactions. I was able to create artefacts as a response to analytic moments from the work, either illustrating, exploring, clarifying, or communicating my Ethnographic observations.

3.2.3 Parametricism

Given the strictures common parametric methods and techniques (2.3) within Product Design practice, I have chosen to define Parametricism as a set of novel sensitivities and techniques for the purpose of this thesis. In so doing, I chose not to adopt Schumacher's definition of Parametricism in decorative aesthetic terms (Schumacher 2009) and I instead offer a *Questioning Approach* to tropes of parametric methods and techniques. By a Questioning Approach I mean calling into question the wholly digital or computational ecosystem presented by Malakuczi (Malakuczi

2019), that of; 1. Digital data gathering 2. Computer-based interaction 3. Exclusively digital manufacturing.

Rather than define Parametricism by what it is not, I will outline my definition in positive terms:

> **Creative:** ‘Nothing was there at the beginning but at the end of the activity something, whatever its scope and quality, will have been achieved. What is more, a potential for creativity may have been realised.’ (Killick and Craig 2012, 13);
>
> **Temporal:** The moment of creation can be instantaneous, or creeping;
>
> **Exploratory:** Bearing no alliance to a given material or medium;
>
> **Gratifying:** With the potential to be returned to, in new company, or with fresh eyes; Rewarding as an exercise itself while holding the potential to inform a further creative outcome;
>
> **Embodied:** Primordial, Sensory, Embodied creative interactions are of commensurate value to generated outcomes (Kontos 2005);
>
> **Reciprocal:** Feedback is key, environmental feedback from context or material, and human or informational feedback from the medium of interaction;
>
> **Deliberate:** Decision-making and autonomy sit within Parametricism, not chance, nor dice-rolling.

This definition is explored through the empirical studies presented in the chapters to follow, and I return to reflect upon it in the Discussion (7.3).

3.3 Ethical Considerations and Tensions in the Context of Dementia Care

Ethical research practice with potentially vulnerable populations raises a number of tensions deserving of attention, as discussed in my Contextual Review (2.2.1).

With these tensions in mind, the University Research Ethics submissions related to my doctoral work were co-authored by Equal Arts; and my research was not only in line with the University's Ethics guidance, but also Equal Arts' own codes of conduct for any work carried out alongside People with Dementia. In taking this approach, my relationship with Equal Arts became more meaningful; the collaboration ensured Equal Arts shaped the research with me, and that my work benefited from their 30 years of ethically engaged Creative Ageing practice with People with Dementia.

Models of assent and consent were used to include people with advanced Dementia in research activities (Slaughter et al. 2007). Assent can be defined as both *'a subject's affirmative agreement to participate in research'* (Cahill and Wichman 2000) and *'the initial and ongoing willingness of the participants themselves to participate'* (Brodaty et al. 1999).

Informed written consent, co-signed by a Residents' family member or carer was always gained when collecting identifiable data, photos, or video. Beyond initial consent itself I also adopted the model of ongoing monitoring of assent (Dewing 2008b), obtaining reassurance throughout engagements that Residents were happy to

participate, and willing to be involved with help from trained Artists and Care Home staff. Residents' assent was continuously assessed by myself, Artists, and Care Home staff. However, for engagements where Residents were deemed unable to give informed consent by Care Home staff, only anonymised fieldnotes were taken with any identifiable information, such as names or places, removed before analysis.

Working responsively, in partnership with Care Home staff and Equal Arts' Artists, meant I was accompanied at all times by either a member of Equal Arts' staff or Care Home staff, to help in dealing with any incidents as they arose. I adapted the type of data collected responsively in workshops to each group of participants, in each Care Setting. This meant that I only ever took photographs, recorded audio or video with Residents where Care Home managers had firstly read a provided information sheet[9], identified Residents who were able to give informed consent, and then arranged time for me to gain informed consent from those Residents with a staff member present, who would co-sign the consent form.

Whilst conducting participant observation in Creative Ageing workshops, I explained to Residents about what my role was in relation to Equal Arts and what the purpose of my participation was in workshops. Where no audio-visual data was gathered each of my encounters was documented after visits and sessions in anonymised fieldnotes.

9 Example information sheets and consent forms are attached I the appendixes of this thesis (9.7).

Being guided by and mentored whilst in Care Homes by Equal Arts Artists and especially by their director, Alice Thwaite, was an absolute education. The company and camaraderie of Care Home staff was also invaluable and reassuring during the inevitable moments when issues did arise, which I present in my account.

3.4 Summary

I will briefly summarise how my methodological approach, grounded in Phenomenology, has informed the methods I have devised for addressing my research questions:

1. **How is Creative Ageing practiced through creative engagements in Care Settings by Arts and Design practitioners to support People with Dementia, and what is the experience of these engagements for those involved?**

Practicing Embedded Ethnographic methods as described, I was able to conduct Design Research alongside Creative Ageing practitioners to build an empathic understanding of the experience of taking part in creative engagements with People with Dementia. Through systematic, reflective practice I was able to scrutinise my own biases and preconceptions about working alongside People with Dementia as they changed over time. Interpreting physical and socio-political signifiers in the designed environment helped me gain me insight into how acts of creativity by People with Dementia can affect personal relationships, social constructs, and power dynamics within the environment of Care.

2. **How can Product Design practice and the resultant designed artefacts support a co-creative research engagement with People with Dementia in Care Settings?**

Using RtD to scaffold designerly methods of inquiry, I have been

able to explore creative and aesthetic expression by and alongside People with Dementia through designed artefacts and the sensory environment. Diverse modes of sensory interaction explored through the material language of Design are understood as not simply inclusive, but as ethical acts which reinforce notions of Embodied Selfhood (Kontos 2004). I use interdisciplinary research practice as an Ethnographer and Product Designer to deliver insight about how the designed artefacts may be used, and considerations to inform the development of co-creative methods and techniques for working with People with Dementia and their Care providers.

3. **How can methods be developed for the co-creation of individualised design outcomes, informed by a critical exploration of parametric methods and techniques?**

Adopting a *questioning approach* to extant Parametric techniques and methods presented in this chapter (3.2.3), I have devised methods for RtD inquiry that are informed by parametric methods and techniques, presented herein as a distinct set of sensitivities and techniques.

A generative process of practice-led inquiry has allowed me the freedom to practice Design responsively and find the most appropriate potential applications for Parametricism, including participation and individualisation. The downside of this approach is that I risk falling into a technology-push mindset, which I have already criticised in a Computational Design context (2.3). Likewise, this may mean that designed interventions do not employ Parametricism, or

only employ it to a certain degree, following an inductive, reciprocal research approach.

The methodological approach set out in this chapter enabled me to become Embedded in Care Settings with purpose, whilst being open and responsive to the people who I met; and the experiences we shared has guided my RtD practice.

This inductive process allowed me to act ethically. First, I was a person in a position of responsibility, to the Residents and staff members I was working alongside with, taking advice to make sure that everyone was safe and as happy as possible at all times. Second, my role as a Researcher allowed me to systematically recount my experiences and interpretations meeting people in their material and social environment, so that I could reflect upon my experiences working alongside Creative Ageing Artists and Residents methodically. In the next chapter, I describe my year-long Ethnographic engagement at Pearson Green.

iv. On My Bias and Assumptions

Dementia is a serious condition, with serious impact on the lives and experiences of all who it affects. Dementia signifies such great change and loss for people and their families as their view of the world, as their position within it starts to be called into question.

These are the dark narratives I exclusively held true, despite reading to the contrary, on my first visit to Pearson Green.

The process of changing my own mind was slow, but joyful. Initially I approached our workshops with timid reservation. It was the warm welcome of Residents each week, keen to know how my studies were getting on, staff greeting me with endless tea and cake, and the furious good humour of the Artists I worked alongside which allowed me to become part of the community to build friendships, make Art, and start having fun.

4.0 Pearson Green: Embedded Ethnographic Engagement in a Residential Care Home

In this chapter, I present the account of my Ethnographic engagement in a Residential Care Home, Pearson Green[10], forming my first empirical study. I attended 30 Creative Ageing workshops alongside Equal Arts' Artists, following the course of a large-scale Participatory Arts project over one year. I attended these workshops in dual roles, as both a volunteer facilitator and as a Design Researcher, building relationships with Residents, Care Home staff and Artists whilst helping carry out workshops and offering to help wherever needed. My time in the Care Home is presented here as an Autoethnographic account, from which I draw insight into how co-creation informed my practice, as well as transferable insights to advance the Design for Health discourse, about using Embedded and Design-led methods in the context of working alongside People living with Dementia.

I firstly outline the research design and aims for this study (4.1). This study was designed to inform my critical understanding of Creative Ageing and investigate potential approaches to addressing the call for greater individualisation and autonomy for People with Dementia within Design (Kenning 2018). Building upon the methodological

10 Pearson Green is a pseudonym chosen to maintain the anonymity of Residents, all of whose names are also anonymised.

approach described in the previous chapter (3.2.1), it was my intention to conduct systematic, longitudinal Ethnographic research with a focus on the sensory environment through Embeddedness (Pink 2015), Emplacement (Garland-Thomson 2011; Turner 2006), and Embodiment (Kontos 2005). I justify my choice of research methods relevant to this study, outlining the specific approaches I chose for data collection (4.1.1), analysis (4.1.2), and presentation (4.1.3). I then outline the relevant ethical considerations and process of University Ethical review for this study (4.1.5).

Following this, I present my experiences at Pearson Green as an Autoethnographic account (Adams, Jones, and Ellis 2015). The account is arranged thematically, with a focus on those events which offered particular critical insight (4.2). I chose to present an Autoethnography rather than an Ethnography after analysing my collected fieldnotes, a deliberate change of direction, which I reflect upon in more detail in the discussion section of this chapter (4.3.4).

I then discuss the critical insights gained from my time spent at Pearson Green (4.3). I outline transferable insights for co-creative Design practice in a Dementia Care context, highlighting the shifts in my own perspective following the year's work. I reflect critically upon the transformative social impact of Participatory Art, as well as implications for Design practice brought about through both the sensory, material environment and the creative social context of workshops. I explain how these findings inform the subsequent studies in thesis (4.3.2).

I reflect upon the methods chosen for this study, and how they shaped my experience (4.3.5). I outline the ways in which the Embedded Ethnographic approach described in my methodology chapter (3.2.1) led to unexpected learning, and how these insights were generated and communicated through analysis and Ethnographic writing.

Finally, I relate my key findings and discussion points back to my research aims and objectives before summarising these insights (4.4) and explaining how they motivated my first RtD study presented in the following chapter (5.0).

4.1 Study Outline

This study investigates the role of Creative Ageing approaches in Care Settings. It explores the ways Creative Ageing practitioners provide opportunities for creative expression and autonomy through Participatory Arts practice (Thwaite 2017; Zeilig, Killick, and Fox 2014) and the parallel drawn in my Contextual Review between increasing calls in Design literature for exploration of individualisation and self-expression (2.2.3) (Kenning 2018; Morrissey, McCarthy, and Pantidi 2017).

My research aims and objectives going into this study were related to my first research question: **How is Creative Ageing practiced through creative engagements in Care Settings by Arts and Design practitioners to support People with Dementia, and what is the experience of these engagements for those involved?** In addressing this question, I aimed to gain a critical understanding of Creative Ageing, as set out in Chapter 1 (1.1).

I was invited by Equal Arts to volunteer alongside three Artists: Betty, Clare, and Alice[11], developing a large-scale textiles artwork with Residents from a Care Home in the North East of England, Pearson Green. Betty, Clare and Alice are all professional Participatory Artists. Equal Arts had worked on various projects with Pearson Green for nine years preceding our project and continue to work together still (at the time of writing).

In my dual role as both a volunteer facilitator and Design Researcher,

11 Betty, Clare, and Alice each chose to have their real names included in this thesis and related academic publications.

I aimed to be as involved as possible with the Equal Arts workshops at Pearson Green to build my critical understanding of the Design context through interpersonal relationships and lived experience. As I developed more experience and confidence in workshops, I was able to adopt more responsibilities; collaborating with Artists in the planning and facilitation of workshops whilst also offering my help outside workshop with any Design practice relevant to the project needed to deliver the finished collaborative artwork[12] and reporting on the project as a whole to the projects' funders.

The project at Pearson Green was conducted with a local primary school. Children from the school joined us for around half of the workshops, usually in small groups, as well as on days out to galleries and museums. It is worth noting that for the purpose of this thesis I was primarily there to support Residents, and my account therefore focusses on my time with them.

4.1.1 Data Collection

In an effort to be as focussed as possible on activities and Residents during the time I spent at Pearson Green, I decided only to record fieldnotes directly following Participant Observation in each Creative Ageing workshop from which to build my Ethnographic account.

12 The artwork developed by Residents over the course of the year was a large Pit Banner, a traditional celebration of mining communities linked to workers' rights movements in the region, as well as a second banner created for the local school whose pupils also participated in the project. Our banner was paraded at the Durham Miners' Gala in the year following this account and Pearson Green's is on permanent display at a local library. A short appendix contextualising the piece itself, which is not the focus of this study, is attached for context as part of the Photo Book (9.1.1). Any identifiable visual information (such as names or places) has also been omitted from this documentation to maintain the anonymity of Residents.

I chose to use this traditional, systematic method for a number of reasons supported by my methodological approach. Firmly grounded in Phenomenology, I intended to foreground lived and Embodied experience, including my own experiences, within the Care Home. *'Truly meeting'* (Buber 1937) individuals with experience of living with Dementia as a community of participants in creative workshops was central to this methodological decision, such that I could conduct myself principally as a volunteer in the space, and secondly as a Researcher. This allowed me to focus entirely on ensuring the safety and happiness of Residents during Creative Ageing workshops and spend time getting to know people, as well as ensuring the workshops themselves were as fulfilling and enjoyable as possible. Following each workshop, I could then document my experiences methodically, away from the Care Home. I chose to reflect upon my experience in each workshop as a short audio recording, which I found more intuitive than typing-up my experiences. Working in this way allowed me to begin note-taking as soon as I left the Care Home, when I would pretend to be talking on the phone as I walked back to the local train station, chatting through the day's workshop, before returning to the University to transcribe my account.

Despite not gathering audio-visual, sensory, or material data from Creative Ageing workshops,[13] as is common in Sensory Ethnography (Pink 2013), the nature of the workshops themselves included a rich array of sensory stimuli as part of the Arts practice; and I was

13 I did not collect any data other than fieldnotes for this study. However, in my role as a volunteer I was required to document the workshops through photographs specifically for Equal Arts. These were used separately by Equal Arts for internal reviews and sharing workshop activities with families via social media. Equal Arts gained separate consent from Residents and Care Home staff for the taking of these photographs which do not appear in this thesis or any associated published work.

methodologically focussed on the sensory environment and sensorial interactions. This unobtrusive data collection method allowed me to work responsively in the community at Pearson Green, and avoided the introduction of any physical data recording equipment into the workshop environment, which was itself a carefully curated collection of artefacts and relationships.

4.1.2 Analysis

Guided by my Phenomenological methodology (3.0), my analytic method was rooted in Hermeneutics. I conducted a systematic Ethnographic Analysis (Ghodsee 2015) with two distinct Hermeneutic circles.

This double-Hermeneutic analysis involved: 1. A round of reflexive coding, responding to each transcribed fieldnote extract following the completion of my fieldwork with a deliberate interpretative lens; and 2. Grouping fieldnote extracts and their respective interpretative codes into broad themes, which would then inform the structure and presentation of my Ethnographic account[14].

4.1.3 Ethnographic Writing

It was my original intention to present the account of my experience as a traditional Ethnography, written with a third-person authorial voice, and communicating my interpretation of the experiences of People with Dementia during these workshops. However, it became obvious that my own position, biases, and presence in workshops

14 A step-by-step worked example of the Ethnographic Analysis from raw fieldnotes to generating the narrative account presented in this chapter is included as an Appendix (9.4)

not only needed to be acknowledged within the account but were inherent to my experience and each of the interactions which took place. The realisation that I was not documenting the experience of People living with Dementia, but in fact the experience of a Designer working alongside People living with Dementia led me to present my work as an Autoethnography (Adams, Jones, and Ellis 2015) rather than an Ethnography. I specifically reflect on this change of perspective in the discussion section of this chapter (4.3.2.3).

4.1.4 Embedded Research Practice

Ideas of expression, place, and Personhood introduced in Chapter 2 were key to the research design for this study. Taking time to get to know people through Participant Observation, and to gain understanding of people's daily lives through Empathy and shared experience was hugely important for informing my Design sensibility.

Longitudinal research gave me the opportunity to build knowledge and experience gradually, whilst reflecting upon my own preconceptions surrounding People with Dementia. Embedded Ethnographic practice let me build lasting friendships with the Artists, Residents, and staff that I worked alongside, and to gain a critical understanding of the situated Design context for my research through Creative Ageing practice.

This Embedded research was made possible by the generous access facilitated by Equal Arts staff members, who were encouraging and welcoming research partners throughout this first study. They helped guide me as I devised my methods of inquiry,

whilst also making sure that I was able to work within both their organisational guidelines and University Ethical protocols.

4.1.5 Research Ethics

Beyond my University Ethics application and approach to ethical practice outlined previously (3.3), there were particular ethical considerations unique to this study.

Following my successful University Ethics application[15], Equal Arts required me to undergo a routine background check and ensure that I would always be working within their working guidelines. The charity made sure that I was never required to be alone with Residents should any incident occur, and I was always supervised by trained Artists or Care Home staff.

During each workshop, I talked to Residents about what my role was in relation to Equal Arts, and what the purpose of my participation in the workshops was. If any Residents' ongoing assent (Dewing 2007) or willingness to take part was not forthcoming (Slaughter et al. 2007), then their study participation, and all related fieldnotes, would be withdrawn without consequence or need for explanation. Though all names and identifiable data relating to Residents are anonymised in the account presented in this thesis, I felt that I had an ethical duty to seek permission of the people I was working with who are represented in that narrative, and to think about the implications of the truthfulness of that narrative as it appears in the presented account. I will reflect further on the ethical tensions I encountered during this study in the Discussion section of this chapter (4.3).

15 Northumbria University Ethics Submission Ref: 4581.

4.2 Autoethnographic Account

The following account is structured thematically, with the exception that the account of my first workshop has been weighted heavily, as it was such a challenge to so many of my fears and preconceptions going into the space. The Autoethnography aims to put the reader in the position of the Researcher (Adams, Jones, and Ellis 2015) as I undertook my fieldwork. The account draws focus on human stories in an aim to foreground the emotional insight and Empathy established during my time working at Pearson Green.

Names of Residents and staff, and any other identifying personal information, have been anonymised but any relevant personal details related to time (e.g., *'it was my first time meeting them…' I had known them for months at this point…*') have been maintained from my fieldnotes to represent an accurate indication of the nature of my interpersonal relationships. Structure, writing style, and form have each been carefully chosen to inform my line of inquiry, grounded in Phenomenology, and in hopes of accurately representing my interpretation of the lived experience of individuals in the space as they were expressed.

4.2.1 Gearing In*:* My First Workshop

Arriving at the local train station an hour and a half early for my first workshop at Pearson Green, I stretched out the 15-minute walk to explore the local area. My route ran parallel to the disused Pearson Branch railway leading to Pearson Green Care Home, which is built on the site of a decommissioned colliery by the same name. Active for nearly one hundred years until the mid-sixties, the colliery

employed over three thousand locals at its peak. Like so many small communities in the North East, industry has been slowing in the increasingly residential area ever since. I passed a number of closed units on the high street opposite a new supermarket connected by a flyover to the motorway bypass linking this area out to the two nearest major cities.

The purpose-built Care Home has a glazed wall facing the main road, and a few Residents waved to me over their lunches as I walked into the car park. The front door nestled under a first-floor balcony, adorned with garden furniture and artificial grass behind a tall metal railing which was painted brown to blend in with the building's façade. I was buzzed into the Care Home by a voice on the intercom.

I signed my name on the visitors' book as staff members beamed at me from laminated photos pinned to the wall. Through double doors into the main circulating space I was struck by the number of lofty wingback chairs set in circles around the room. Each tweed chair snugly housed an inky-blue cushion sporting bright white writing, logos, arrows, and a list of cleaning instructions. These cushions jumped out as a strange addition to the room, extremely clinical among the quaint upholstery. Picture frames crowded the walls under the acoustic ceiling tiles. Along one side of the room sat a model high street, hardboard shopfronts wrapped in decorated paper looking out onto a miniature train set, and a bustling village green backed by a huge photoprint of rolling countryside. Next to the diorama, another set of heavy glazed doors with blue fire escape stickers were draped, above head height, in a chintz curtain proscenium. The air smelled of

carpet cleaner, instant coffee, and unseen carnations.

Betty, the Artist in charge of the project, was sitting in a chair surrounded by overflowing bags of supplies, chatting with a staff member. She got up from her chair to greet me with a hug and the offer of a cup of tea. Betty explained that today's workshop was just intended to kick-off the project, which was to culminate in a large textile artwork about the local community, co-created by Residents and children from a local primary school over the coming year. The second Artist, Clare, was helping pick up the schoolchildren; a class of eight and nine-year-olds who would join us shortly. We chatted a while in the foyer, waiting for the Residents to finish their lunch before we could set up the workshop in the main dining room.

Walking down a carpeted corridor, we passed open doors into Residents' bedrooms, each one seemingly laid out the same. There was an armchair by the door, obscuring the view of a single bed; a nightstand topped with photos in frames - sitting under a small window, and a TV sitting on a chest of drawers opposite the bed.

Betty pointed out artworks on the walls as we went, like a gallery tour guide. Tightly packed from the waist-height handrail up to the ceiling, artworks ranged from generic to plain ugly. Romanesque illustrations sporting a photoshop-patina, stills from film and TV shows gone by, vintage household advertisements, and a bewildering array of food photography were mounted in uniformly black frames, each one visibly screwed to secure it to the beige wall beneath. Betty told me she's been trying to get original artworks created by Residents

to displace these pieces over time but had so far been met with resistance from the Care Home's management.

Among the frames were reminders that Pearson Green is as much a workplace as it is a home; a grey telephone handset, a noisy red fluted siren, awards and accreditations, and glossy plastic alarm boxes with buttons and blinking lights set within wipe-clean housings, each offering clinical accents to the space.

Betty directed us through a door marked 'staff only', into a stairwell we could use as a staging area for the day, dumping her bags of materials - paints, plastic pots, rolls of lining paper, markers, coloured card, scissors, glue, and fabrics. Betty rifled for the materials for the proposed painting workshop and left lots of stuff behind in case of a change of plan, prepared for every eventuality.

The first workshop was in the dining room in which Residents had been eating as I arrived. The space was arranged like a restaurant, with laminated menus and cloths on round tables, about which Residents were seated. Tall, upholstered dining chairs slid easily on the laminate floor as staff helped people who wanted to leave while we cleared the tables. Clare arrived with the children, who made a mountain of tiny coats on the table nearest the door and were then seated at tables with two or three Residents to form each group. We had around six groups working at any time with roughly one facilitator per table; the two Artists, the activities coordinator from Pearson Green, a teaching assistant from the school, and me - trying to help wherever I could.

Betty quickly got the workshop underway, bringing the children to quiet with a rehearsed call-and-response clap, and then telling the room that we would be decorating Easter cards using watercolour paint. We handed out materials, squeezing paint onto palettes and giving each participant a piece of heavy white card. The groups started to work happily, most of the Residents choosing to use the bright colours to paint abstract patterns or natural imagery - sun sets, rainbows, dots, dashes, and lines. Some made meticulous patterns, and others mixed all of the paint together into brown sludge.

During this first workshop I was mainly busy fetching materials, moving between groups checking everyone was okay. Some Residents joined us as we progressed, and a few others became unsettled over time and asked to leave. In this case I could go to find a member of Care staff to patiently help Residents back to their rooms if they needed assistance. Once or twice, I went to fetch some more materials for participants from our improvised staging area in the stairwell. I found myself taking my time with these little trips, feeling reassured by the quiet, and the practiced familiarity of checking my phone. I'd hold on to the door handle for an extra beat before stepping back into the animated workshop.

In a quieter moment, a Resident called Rosie, held my hand from her wheelchair as she told me about the area in which she had grown up, as I leaned forward in my chair. She spoke quite quietly in broken, breathy, clutches. I was eager to scaffold conversation between the chatty children and Rosie, and I was surprised by the ease with which the schoolchildren caught Rosie's meaning, carrying the

conversation as they painted busily, heads down. Rosie had attended the same school as the children, though it had a different name back then. We chatted about what we liked in school, and agreed music was a favourite subject. Rosie told us proudly, *'…my Mother was a fine pianist. I used to play the piano too.'*

Andrew sat quite quietly with the group at his table. His health had declined over the preceding fortnight following a fall, which had left a visible cut on top of his head which caused me some concern. Betty told me he used to play the drums and Artists had previously brought a full drum kit into the Care Home for him to play, to which he had taken like wildfire. Betty said, *'It was a sight to behold!'* Andrew wasn't painting, instead just sitting and listening to the conversation on the table. The other Resident in his group, Joan, chided him encouragingly, inspiring him to pick up a brush and join in with a shared smile.

Managing the large group of people seemed to take up most of the Artists' efforts, balancing the vocal needs of the kids and the quieter Residents. At one point, Rosie's table was unattended, and we turned to see her seemingly made up with bright red lipstick, having scooped a finger full of paint into her mouth. Betty quickly sorted her out with a wet wipe and some clean water without disrupting the industrious rhythm of the workshop. The session was buoyant throughout but naturally wound down after nearly two hours as people finished their paintings or ran out of energy.

The children gathered in the foyer of Pearson Green as they were

leaving, where they sang some songs while Sophie, the activities coordinator, accompanied them with a ukulele. Residents sat smiling in the wingback chairs as the children sang ‘Oh, I do Like to be Beside the Seaside’, ‘Bonny Bobby Shafto’, and ‘You Are My Sunshine’. One Resident danced along, supported by her walking frame. Through a broad smile she exclaimed; *‘I don’t know why; I just love them!’*

I cleared up the empty dining room with Betty and Clare and asked them about their experiences running these workshops. Clare remarked that sometimes she thinks she’s nailed the format for a workshop because it has gone so well, and then at the next Care Home the same workshop will go terribly. Betty was happy with how the session had gone as the output had been high and the mood was good, despite Rosie trying to eat paint, which Betty assured me is very rare.

I was struck by how chaotic I perceived this first workshop to be. In my initial account I framed the day as frenetic, where upon reflection the only person rushing around was me. It is fair to say I was nervous, but I was surprised and not a little embarrassed, to be calmed down and guided by those I had, paternalistically, expected to be helping.

As I worried about how to communicate with Rosie, the children at her table just talked to her naturally. While I was initially concerned about the wound on Andrew’s head it was another Resident, Joan, who took the initiative to get him involved in the creative activity.

4.2.2 Individualisation and Adaptation in Workshops

I felt that the diversity of the group of people I was meeting was at odds with the structural rigidity and homogeneity surrounding them reflected in the designed environment. The structured setting, laminated schedules, mealtimes, and the daily cadence of Care dictated the boundaries of space and time that both Artists and Residents were allowed to fill.

The more time I spent in workshops, the more I perceived their success in neutralising the influence of these strictures. Communication, timeframes, and activities themselves were responsively adapted to suit each Resident. Care staff and Artists were unendingly flexible in individualising interactions to suit each person.

4.2.2.1 Sensory Adaptation

Residents at Pearson Green lived with a wide range of sensory and cognitive impairments. Workshops succeeded in including Residents with often counterintuitive activities, contributing to a convivial and welcoming atmosphere, focusing on individuals' choice and ability – rather than a pathological roster of exclusionary disabilities. As our workshops were primarily situated within Visual Arts practice, I was aware of the ways in which Residents with serious visual impairment, for example, approached activities like drawing, painting, and sewing.

Pip was always quick to compliment any new faces, which she would inspect up-close with outstretched hands. She always greeted me

fondly, each time a new introduction, showing her remaining teeth in a warm smile. Particularly fond of male company, her significant visual impairment didn't dampen her flirtatious spirit; instead, she would employ all of her senses to build a picture of the people she met. *'Ee, what a lovely speaking voice you've got, where's your accent from?' 'Aren't you nice and tall!'* she said, whenever I was silhouetted against the window. On one occasion running her hand over my head while we worked, she sighed *'…Such a shame'* on finding out that I was bald.

A workshop that Alice held in the garden was one of the busiest of the whole project. Between 10 and 20 Residents joined us throughout the afternoon. We sat in the beaming sunshine, having to push three tables together end-to-end to give everyone room to work. Chickens pecked around on the ground as Residents worked on a breadth of textiles activities; knitting, sewing, and decoupage. Sophie, the activities coordinator, had brought along a CD with lots of songs the Residents knew, so we had quite a lot of singing too. Whilst most Residents were using techniques that relied in part on their eyesight, Alice asked Pip to make some pom-poms by wrapping wool around a cardboard form. Pip's pom-poms were to represent balls of her favourite ice cream on the finished piece. Pip is fond of the brightest possible colours, and could see enough in the bright sunlight to choose which wool she would like to use for each pom-pom. This physical and repetitive activity really suited Pip. With her extremely limited eyesight the tactile and spatial nature of pom-pom making lead to Pip having a really satisfying amount of control and rare autonomy over the making of each piece. After wrapping the

circular form in layers of the brightly coloured wool, I would guide Pip's scissors around the edge, as she cut away at the strands, the fluffy ball sprouting into being in her hands.

Proud of her work, Pip was showing some other Residents around her what she had made. Rosie really liked the pom-pom, gently holding it to her cheek to feel how soft it was. However, she then put it in her mouth and began to chew on it, needing for it to be quickly rescued.

During a subsequent workshop, Residents were making felt flowers, and we formed a bit of an assembly line in place of a single person completing each operation. Polly traced the outline of a card form onto felt, and Phillip cut each shape out. I sat at the vintage sewing machine and moved the fabric pieces to stitch them together whilst Pip drove the ornate hand crank whenever I said, *'Okay, go!'*, I felt the mechanical repetition of the task, mimicking the machinery, helped us fall into a comfortable cadence. Pip was satisfied to be a part of the sewing without being excluded by her visual impairment, instead enjoying being part of the team as we finished off a new flower every two or three minutes.

In other sessions, Staff members and Artists established means of communicating with another Resident, Barbra, by writing clear notes in front of her, to which she would respond verbally. This process involved a lot of repetition; I sat with Barbra one afternoon as she asked me a few questions over and over. Rather than pointing to an already written answer I would answer each question in writing as

Barbra watched and responded. We enjoyed the workshop, working together on collages. As I was walking back to the train following that workshop, I pulled a couple of folded pages from my pocket and read the iterative answers echoed all over the pages. I was stuck that the scribbled notes were as much a record of our time together as Barbra's collage.

4.2.2.2 Temporal Adaptation

As the workshops unfolded it was my assumption was that we would be doing a different activity each week, culminating towards the finished artwork. Though this steady gait from workshop to workshop allowed most Residents to engage with a breadth of new creative activities around a key theme, Artists accommodated the compression or expansion of the nature of creative activities in time to suit each Resident. Sometimes activities were broken down into individually facilitated collaborations, presented moment to moment, and, in other cases, Residents preferred to continue with one particular activity for weeks and weeks. Artists always ensured that Residents were allowed to work at their own pace, this was in contrast to a few occasions where Care Home staff would intervene to do activities 'for' Residents, rather than seeing a piece 'unfinished'.

On temporal adaptations and awareness. Killick and Alan write:

> *'It may also be that there is a time delay between stimulation and a response, and so we need to have a wider 'frame' in which to try to make sense of what is going on. The practice of focusing on the moment and being open and available to the*

person [with Dementia] is especially pertinent to these sorts of situations…' (Killick and Alan in Lee and Adams 2011, 235).

Artists showed an intuitive sensibility to the individual experience of activities in time, making space for Residents to approach workshops at their own pace – for example the ways in which Joan's experience changed throughout the project. Joan's temperament changed noticeably over the course of the year as staff commented on her diminishing health, and with it her role within our workshops. She was once one of the keenest participants, often encouraging her friends to come along to workshops and give the activities a go, but Joan had increasingly struggled to get into the flow of creative workshops over the preceding couple of months, staying for only short periods at a time, or choosing to come along to a workshop but maybe not taking part. She would increasingly turn down the creative activity on offer with a wave of her hand and make an excuse to leave after a very short time.

However, upon deciding to undertake an embroidery piece one week, she went on to work on it throughout the whole summer marking a notable turnaround in her engagement and satisfaction in workshops. Her engagement with the embroidery piece was found to significantly help lower the barrier to entry for her in workshops, because she'd already started to work on something. However, this needed nuanced support. For example, Joan had been choosing paper collages of local flowers, made by the children, that she liked to add to her piece, which I would then sketch in pencil onto the cotton fabric. Choosing a close matching colour Joan then traced the outlines of each shape

in fine stitches to build up her representation of each flower, usually over one or two workshops. She would then choose a new flower to add to the composition, keeping going until she was happy with the piece. She knew she could do it, because it was hers, which bolstered her confidence in a way that seemed really valuable as it originated from herself. During this period, Joan was highly self-led in choosing the direction of the piece, taking elements from the project to add, and building it up over time. She only needed a small amount of practical input from me each week, untying knotted thread, or threading a needle. She mainly just worked happily on her own, chatting as she went.

On one occasion there was a bit of a hiccup when a piece of knitting by another Resident, Katherine, had gone missing between workshops. *'I'd worked hard on that!'* Katherine exclaimed when it transpired that we couldn't find it. Katherine would usually introduce herself to me each week, asking my name and where I'm from and what the workshop was about. That she remembered working on the piece in previous weeks was itself unusual, and testament to how important her work on this piece was to her. Luckily, Alice was able to quickly recreate Katherine's piece for her to continue on with happily, but Katherine's frustration in the moment impressed upon me the strength with which she felt ownership over her work. For Katherine, undertaking a project that extended beyond the timeframe of a single workshop required 'more of her', in terms of self-expression.

By contrast, some Residents were most creative when a seemingly complex activity was deconstructed into single simple gestures.

Being asked to ‘sew a cloud’ was received as quite an unusual provocation, and Heather, who had joined us for her first workshop, was adamant that she didn’t want to give it a go. Having refused to attempt to sew one on her own I asked her to help me out with sewing one, and she agreed. We were working to the finished example that Alice had provided, and I broke each physical movement down into a stage and we collaborated stage by stage. First, Heather chose a piece of cotton wool, then chose where to attach it to our canvas. I then placed the needle into the canvas to fix the cotton before flipping it over and asked Heather to pull the needle taut each time. Then we turned the canvas back over and assessed our work before choosing another piece of cotton wool. Gradually, our little cloud emerged, and Heather was really proud, exclaiming *‘I’ve never done anything like this before!’*

4.2.2.3 Creative Exploration

The open and disinhibiting format of Creative Ageing workshops was found to prompt and inspire experimentation and creative exploration, even creative rebellion on occasion. Seeing Residents’ confidence grow as they followed their own creative direction in workshops marked some of the most rewarding and voice-giving moments of creative expression.

In a workshop built around autumn leaves, we did two activities; individually creating wreaths from leaves built on top of paper plates, and then collaboratively using the leaves to decorate a large illustration of a hen on the table. Lindsay’s wreath was particularly lush and chaotic, she worked happily getting lots and lots of one type

of red leaf and piling them high in a big, beautiful bunch. Lindsay was sitting next to Barbara, whose wreath was the exact opposite to this, it was completely symmetrical with a repeating pattern of leaves arranged like a clock face, neat as a pin. Both were beautiful but when I complimented Lindsay's work, she was unwaveringly critical: *'Oh, it looks like a pile of rubbish!'*

Following a tea break we started our second activity working on decorating a large, outlined hen with leaves. Lindsay was by far the most engaged with this activity, working at the head of the chicken straight away with fixed attention. She was extremely cautious, slow, and deliberate about the placement of each carefully chosen leaf. She lined up the leaves delicately, so they barely overlapped, then went over each with glue to make sure it was attached, before using scissors to trim any errant foliage which had trespassed over the outline of the piece: *'I think I'm doing canny; I just need to stick at it…'* She worked meticulously until everyone else had left the workshop and kept going as we cleared up around her until she was satisfied with her work. As she was finishing, she seemed to have real ownership over the piece, *'Well, I think it is quite nice… I've had a good teacher!'* She was beaming and had a little glint in her eye, the deliberate experimentation with her Art style paying off. *'You learn something new every day, don't you?'*

A few workshops later, Emily and Pip were chatting at the head of the table. Pip leaned in to follow along as Emily moved to pieces of fabric from position to position on the table in front of them like a game of chess. The first piece was a fabric maple-leaf Pip had decorated in

an earlier workshop, with deep autumn colours chaotically scribbled onto the spiky form. The second was a plain offcut of peachy felt, tapering over a sweeping curve, and ending in a geometric overhang. I asked what they were up to and Emily used very deliberate gestures to wordlessly describe her intention, while I attempted to uncover the elusive word. She was describing the relationship between the two pieces by moving her hands in unison to carve a neat circle in space around them, from top to bottom.

> *'Similar? Balanced? Opposing? Unified? Playful?' I ventured. 'They're nice, the way they play together.' She said, nodding in agreement.*

Alice had originally asked Pip and Emily to decorate a fabric starfish which lay untouched beside them. *'What do you think it would look like if we added another piece?'* Emily asked Pip. I encouraged them to pursue whatever they were into, inspired by the momentum of their self-initiated work, and how engaged they were in the surrounding discussion. They continued experimenting with the material elements, and the graphical play between these shapes and colours around them. I checked in on them a few times through the workshop, as they discussed the layout intensely, adding, questioning, and removing pieces they found. Eventually they settled on a composition both were really happy with, showing it off carefully. *'Ooh, you could see it properly then, if it was up on the wall! You know, ironed and pressed and in a frame…'* Emily said as she showed me her work. We pinned the design carefully onto a piece of blank calico, with Emily correcting me as I made mistakes.

Emily is usually quite shy, though when we held the final piece up for everyone to see she admitted; *'I'm not that bad, am I?'* with her shoulders raised, celebrating her creative rebellion.

4.2.3 Social Spaces

Taking the social model of Disability (Mental Health Foundation 2015; Shakespeare, Zeilig, and Mittler 2019) as a lens through which we can scrutinise the structures surrounding People living with Dementia, I was able to see more clearly the Artists' work taking place in Creative Ageing workshops was deliberately and skilfully minimising the disabling social factors at play. At first the workshops seemed effortlessly joyful and convivial, but over time I gained an appreciation for the Artists' skill in choreographing these social collaborations, as deliberately as any artwork.

As described in the previous sections, disabling physical and social factors were mitigated in workshops, specifically around; communication, remembering, and creative expression. Residents were at the centre of decision-making during the workshops, while Artists acted as facilitators, allowing the work to emerge through the individuals creating it; encouraging and inspiring, rather than pushing or telling. The resulting social ease in workshops gave way to creative freedom, and often resulted in moments of open and honest expression about Residents' lived experience at Pearson Green. Though these moments were not always expressions of positive emotion, and indeed sometimes about sadness or loss, it was clear to me that Residents felt comfortable to share their feelings with us honestly due in part to the social space (Habitus) created in these

workshops.

This freedom of communication created an environment in which Residents could articulate their experience, regardless of the mode of communication. This was sometimes manifest as testament to the power of individuals felt shame, some Residents who enjoyed workshops on many occasions still felt the need to remove themselves for fear of embarrassment or upsetting others. This is arguably a result of internalised social stigma and evidence of the ongoing work needed in these spaces.

Residents' creative work not only brought about personal moments of joy, but also changed the way that Residents were perceived by those around them. I certainly noticed ways in which my own perception of individuals changed over the course of workshops. Gaining new creative skills notably changed the conversation around Residents with their family members. I believe the ethos of Creative Ageing also led to some Residents seeing themselves through fresh eyes, and hopefully changed their self-perception for the better.

4.2.3.1 Social Creativity and Shared Experience

Shared group experiences involving making, singing, and laughing together were among the most precious during my time with the Residents of Pearson Green.

Collective trips between workshops, to Arts venues and museums had non-trivial social qualities and offered important moments to explore new creative contexts in company. During a day trip out

to a local museum I pushed Joan's wheelchair along while Polly walked alongside us, chatting all the way. Joan has a lot of friends at Pearson Green but is particularly close with Polly. They often hold hands as they sit together in workshops, kissing each ether on the cheek with hellos and goodbyes. The museum was an old coal mine, so there was a lot to see, vast machinery and open industrial spaces. *'Ee, it is nice to be out and about.'* Joan remarked, holding her bag on her lap. *'Oh yes, and in the sunshine!'* Polly smiled.

Inside the museum we proceeded along a twisting walkway, clad to mimic going into a pit. The exhibits took us through a century of mining history, workspaces and homes, jazz bands, up to and beyond the mining strikes. *'My nan used to have a stove like that'* Joan said, pointing out a deep range cooker under the low roof in a mock cottage.

As part of the exhibition about a typical mining home, we rounded a corner to be confronted by a naked miner's bottom poking out from a small shower. Pip and Polly thought this was hilarious! They spent a lot of time pointing and giggling and poking around this model bottom. We all laughed at that, with one or two of us rolling our eyes, bonding over the rudeness and the absurdity of it, the silliness in the moment uniting the whole group. *'You two... What are you like?'* Joan joked. Our laughter echoed through the museum, as I pushed Joan's wheelchair on to the next exhibit.

In another workshop based around leaves, Residents each chose a fallen autumn leaf, traced around it onto fabric, and then coloured

their artworks in using marker pens. The spatial arrangement of the activity was very clear to interpret; the leaf and resulting drawing ended up exactly equal in size as a result of tracing, and at first all of the Residents chose to use colours closely matching their leaves, resulting in highly figurative[16] artworks. As people drifted in and out of engagement with the activity, they could get back on track quite easily as the materials of the activity themselves were physically indicative of the activity in hand without having to vocally question what was going on, or what to do next. This resulted in high uptake across the board which, in turn, encouraged even more Residents to engage with the activity, itself normalised by the number of Residents taking part. This atmosphere of joining-in encouraged greater creative exploration, with some Residents experimenting with the form once comfortable, moving away from the representative into more abstract and self-expressive imagery within each subsequent leaf artwork.

Following the workshop, staff, Artists, and I all reflected on the prolific and productive nature of the workshop. The echo in form, size, colour, and physical relationship, between the subject and the resulting artwork, each signified an element of the activity itself to each Resident. It was also remarked that Residents taking a leaf each helped each participant to arrange things as they would like to suit their own needs and preference, opposed to everyone drawing from a central or external piece of imagery.

16 In this thesis, I use the artistic understanding of the word ‘figurative’: describing and artefact that is clearly derived from real object source and so is, by definition, representational rather than abstract.

Tea breaks were so commonplace during our workshops as to almost pass unnoticed. Sometimes two or three times during each visit, a smiling face would appear beneath a toque blanche and offer hot drinks to the room at large, met with universal assent.

Short, white, stackable cups were dealt out, always with the offer of a biscuit. Some Residents needed thickener stirred into their tea or coffee. Upon trying a coagulated cup of warm tea out of curiosity one week, the significance of tea-drinking as a social forum, and ritual of British adulthood was impressed upon me by the lengths Residents and staff went to in ensuring that each person could take part in each round of tea.

4.2.3.2 A Space in which to be Heard

I felt that the workshops were often successful in creating a space for some of the quietest voices in the home to be heard. During a drawing workshop early in the project, Claire spent maybe half of the time restlessly searching through the papers at her table. As I checked in with their group's progress, the schoolchildren on her table said, *'She's looking for something, we're trying to help her.'* She was strumming the pad of her thumb along the corner of each sheet of paper in turn to see if any were actually two stuck together. After some time, we were able to work out she was looking for the artwork she had started in the previous week's workshop.

She tried to describe to me what it was she was looking for, but we couldn't manage to communicate verbally. It took me a long time of checking each drawing I could find in the room with her until

uncovering the one she was looking for. Once found, she instantly recognised it and started working on it as soon as she had it back. What was interesting about the artwork in particular was how small and gentle it was, and yet how that was still completely recognisable to her. The artwork was just four tiny circles, lightly drawn in pencil towards one corner of an A4 page, no bigger than a coin.

Polly occasionally struggles to find the words to express herself when we talk, but she happens to be a fantastic singer. During a workshop in which we were using a vintage sewing machine Polly and I were joking that both she and the sewing machine are *'Lovely Singers'*, and on this occasion, she offered us a song. She sang 'I can't begin to tell you'…

> *'I make such pretty speeches, whenever we're apart*
> *But when you're near, the words I choose refuse to leave my heart*
> *So, take the sweetest phrases the world has ever known*
> *And make believe I've said them all to you'*

I felt that this beautifully articulated the idea that an intention can be revealed in so many ways, in this case with misplaced words. The lyrics' deprecating eloquence illustrates to me so much about the pieces that come out of Creative Ageing workshops, where the idea of just 'giving it a go' regardless of the intended outcome often produces similarly eloquent and poignant artworks which communicate so much of each Resident. The open and creative space of the workshop seemed to encourage Residents

to communicate using a range of approaches, expressions, and manifestations.

During another workshop I had quite an affecting conversation with Katherine. I was sitting with her as she worked, and after a while she chose to tell me more and more bleakly about her unhappiness.

> *'I hate it here…'*
> *'I never thought I'd end up in a place like this.'*
> *'I was never sick, I never even had to go to the dentist! I just woke up on one day and my sister was sitting over us, she said I'd fallen flat and been in hospital for three months. I've been bad ever since, my mouth's always dry and I cannit breathe.'*
> *'I wish I was dead.'*

Having known Katherine for a number of months and seeing her so upset was disquieting. I wanted to acknowledge how she felt, though I didn't feel I could offer her any reassurance in the moment, so we just sat together in silence for a while. The joy brought about in our workshops didn't take away from her frustrations or the reality of her lived sadness in these moments. These moments of frank communication, though dark and often changing, are just as important to me as the joyful ones with which they contrast. The validity of Residents' self-expression in moments like these is as valuable as any of the voice-giving exhibits generated in Creative Ageing workshops.

Following a workshop we had held in the garden I sat down and chatted for a while with Pip as the chickens pecked eagerly around us. That morning, Pip had been to see the hairdresser, who comes to visit Pearson Green each week.

'When I was younger, I had dark black hair, like my brother. I got it dyed today 'cos all the grey had grown out, and it's nice to treat yourself!'

'Oh, absolutely.' I agreed.

'Aren't we lucky to be in such an exciting place? Could you take a photo of me playing with the chickens to show to my family? They wouldn't believe I'd had a chance to do a thing like this otherwise!'

'I could bring a polaroid camera with me next week?' I said.

Pip smiled, 'It's a lovely place, I've only come to stay for a bit. After my husband died, we were married nearly 40 years, I'd got myself a bit worked up.'

She held my hand, and I tried to give her the space to speak her mind.

'I just need a bit of time to get my head together to look after myself, have a bit of rest.'

Despite her habitually cheery manner, the opportunity for Pip to reflect thoughtfully about her experience living in the Care Home changed my view of the space, and Residents as people within it.

4.2.3.3 Social Pressure

On a visit to a local Art Gallery and Museum for both the Residents and school children, Fred had dropped behind the rest of the group a little after twenty minutes or so. I found him standing at a glass cabinet filled with WWII food rations. He raised his hand from his walking frame to point out a black and brass tin labelled Pure Dried Whole Eggs: issued by the Ministry of Food. *'The powdered stuff always made better scrambled eggs than the real thing.'* Fred said behind a tight grin. After some time, Fred asked to sit down rather than keep looking round the displays. A museum guide kindly gave up his seat. *'I've been to this museum before'* Fred told me as I perched next to him and we sat chatting for an hour or so. Fred told me stories of playing tricks on his schoolteachers by swapping places with his twin brother as evacuees in the war, growing up and working at the once bustling local shipyards, and raising a family who have followed in his footsteps working at sea.

Sophie, the activities manager, was concerned about Fred throughout the afternoon, checking in a lot and reassuring me I could come and get her if he became distressed at all. In spite of this, my experience was that Fred was quite happy freely telling stories with an eager audience, jumping into anecdotes unprompted when conversation dipped, preferring to reminisce than talk about the weather. He was cheeky and charming, often sharing a private laugh and an avuncular wink, but sometimes his stories would stutter and stall to an abrupt end when he couldn't remember a detail, a place or name, or sometimes why he'd even started a sentence. *'I'm sorry, it just keeps slipping my mind'* he said, lifting a hand to his forehead.

'There's no need to worry, it's just nice to have a chat' I offered, wishing I could do more to ease the conversation.

> *'All you have to do is see the right person and it all comes flooding back. Sometimes I think I should write it all down, but you never remember in the moment and then it's gone again. My eldest son's the one who can always get everything organised. He's planning a big party, to get everyone together again. He'll get everything sorted...'*

Back at Pearson Green a couple of months later, Fred had briefly come into our workshop but, as in previous weeks, we couldn't get him to stay. Betty had the idea of showing the picture of the ship Fred used to work on that he keeps in his bedroom to the schoolchildren, in an attempt to inspire him to share some of his stories. I chatted to Fred in his room after he'd left the workshop and explained that there was a young man who was really into boats and might like to hear Fred's stories about his time working as a rigger. *'I don't want to scare the children; not having everything in order and getting things wrong'* Fred apologised. His acute awareness of his deteriorating memory had come up on more than one occasion over the last few months. I think Fred felt an underlying embarrassment, bordering on shame, that he no longer saw himself as the charming conversationalist he was.

As I was heading back to the workshop, Fred's eldest son was in the corridor on his way in to visit.

‘It’s so nice to put a face to a name, I’ve heard a lot about you. I have to say we absolutely love having Fred in our workshops.’ I said, smiling at Fred as he nodded inwardly. ‘Well, he’s always been an excellent draftsman, haven’t you Dad?’ Said his son, getting back to their visit.

After a handshake I left them to it, but I was frustrated that Fred and I weren’t able to get across how important and beautiful the work he had generated is to the project. Because of Fred’s sensitivity in social situations and his feelings of shame, the last thing I wanted to do was infantilise or embarrass him. Despite that, it was hard to express how important Fred was to our group, and to the atmosphere in workshops when he did choose to stay.

Social pressures didn’t only seem to come from Residents themselves, their families, or carers. In a critical incident with Polly, I was, inadvertently, the cause of unnecessary social pressure which resulted in Polly recounting a painful memory.

Polly had amazed me with the story of how, as a young girl, she would bring lunch to her big brother as he worked at a local shipyard. Polly would wrap the lunches, drop into the busy river, and swim out to the boat where her brother was working to eat together. I thought this story was fabulous, and framed Polly as a feisty and fearless character.

The Artists and I thought it was such a nice story that we could base an activity around it in the following session. I wrote-up a short

version of Polly's story to read during the workshop – intending the Residents and children to respond to it by creating a big, collaborative, river artwork.

At the start of the next workshop, while Polly was yet to join us, the Artist, Clare, started to read the story aloud.

> *'Polly was 12 years old, and her brother was three years older…'*
> *Part way through the story Polly arrived.*
> *'Polly, we've just been talking about you!' we said, greeting her while she stood in the doorway. We explained that we'd been talking about when she used to go swimming.*
> *'Oh, yes.' She replied brightly, 'we used to go in the outdoor pool in town…'*
> *I stopped her and asked specifically about when she would swim in the river.*
> *'Yes, I used to swim in the river sometimes…'Polly conceded, 'that's how my brother died. He was dragged under.'*

My face dropped and Clare's eyes widened – quickly changing tack to continue the workshop at large, while acknowledging and comforting Polly.

She was visibly troubled by this visceral memory, sharing that her family never recovered from the loss. In the moment she was deeply sad, despite being back to her smiling self a few seconds later.

While the rest of the workshop continued without event, Clare and I discussed what had happened with Polly and her story, and how we could have handled it differently.

Upon reflection, I think a few key elements of my approach caused Polly's painful experience. I consciously chose to name Polly in her story, and furthermore we pointed her out to the group as we told it, when I could have just written the story about 'a young girl'. I also think that the staging of the workshop affected the pressure on Polly, as she stood alongside me and Clare with everyone else sat, like an expectant audience. I asked Polly to remember accurately, on the spot, and even interrupted her chosen response asking her again to remember the story she had told me previously instead of letting her talk.

Though this incident was brief, I feel that in depth reflection upon it informs my practice as a Designer, thinking carefully about the impact of aesthetic experiences, and how they can unwittingly enforce troublesome biases.

4.2.3.4 Creativity Changing Perceptions

Rosie communicated verbally less and less often as months passed. Having known Rosie for a long time, on one occasion, late in our project, I was surprised to have an in-depth creative conversation together. We were both taking part in an activity based around outfits of the 1950s; the Artist provided dolls and materials to make paper costumes. In a calm, chatty environment, Rosie and I listened to music and looked through magazines from the era. We listened

to Rosie's favourite music as she worked on the costume design, making all of the choices about which colour should go where, and which cut each piece of clothing should suggest as we stuck them down onto a paper doll.

Rosie's often limited verbal communication noticeably increased as we worked, augmenting her usually gestural interaction with me through the materials of the workshop. The multisensory nature of this workshop helped create a more immersive environment in which Rosie could articulate her intention in a similarly mixed manner - though occasional speech, singing, and gestural interaction with the workshop materials. This multi-sensory communication reinforced our interaction, and Rosie's confidence over time, giving us the opportunity to collaborate on what turned out to be a portrait of Rosie's mother. Rosie's face lit up during this workshop, as she talked passionately about how she and her mother loved to dance.

We worked closely with the materials, choosing reference images from the housekeeping magazines as a starting point coupled with the material selection on the table to design each element of the outfit. I made sure to work carefully, asking more and more questions as Rosie became more engaged in the activity so that Rosie's doll was as she imagined. Over about an hour It became manifest that the outfit was one that her mother would have worn when she was teaching Rosie to tap-dance.

It was occasionally an uphill struggle to get Katherine to take part in activities. Despite being a regular face at workshops and always

happy to have a chat, Katherine carried a reluctance toward creativity from one of her schoolteachers, who told her that she couldn't draw and shouldn't try. As such, Katherine would often vehemently refuse to take part in any visual Arts activities.

> *'Ee, I'm a horrible draw-er, they told me in school'*
> *'Kathrine, I've seen your drawings so many times, and they're always lovely' I'd say.*
> *Betty would often chime, 'If you can hold a pencil, you can draw!'*

However, sitting outside in fine weather for a workshop in the garden one day, we found Katherine with a pair of knitting needles in her hand for the first time. She was knitting dexterously, happily, and at a rate, not looking down as her hands worked. Katherine's sister and niece happened to have joined us that day and they remarked that they didn't know Katherine could knit at all. True to form Katherine shrugged off their compliments, but the positive way in which this discovery changed her family's perception of her abilities was undeniable. Katherine's knitting continued productively for weeks, marking a real upswing in her engagement with workshops over time. At the end of our workshop Katherine's family remarked that it was lovely to see her doing something creative, and it put their perception of her time at Pearson Green in a new light.

As something of a break from a busy workshop we worked with pairs of one school child and one Resident in the corridor to create some portraits. Using a technique based on traditional silhouette I took

a digital photo of the pair and then projected it via a laptop onto a large sheet of paper on the wall, so that it could be traced with bold markers, easily seen against the white paper.

Lindsay and one of the schoolgirls chose to trace each other's image after I'd taken their photo. We were just sitting together around the corner from the main group workshop, but the quieter space afforded a nice break from the bustle. As they worked the girl commented, *'I really like your hair in the photo, it's so beautiful, shiny and silver. My hair's too frizzy; I like it too though.'* Despite starting enthusiastically Lindsay didn't draw very much as they spent time together, but sat enraptured, watching her portrait emerge with a smile over her cup of tea. *'Isn't she doing well, isn't she good?'* She would remark from time to time. The resulting drawing had a high fidelity achieved with relative ease because of the projected photo, which was really rewarding, and I think freed up more headspace for connection and reflection in the act of drawing. I felt that the broad smile on Lindsay's face was due in no small part to the schoolgirl's compliments as they worked, and that Lindsay's perception of herself had been shifted a little in being seen through another's eyes.

4.3 Discussion

This study contributes to my critical understanding of Creative Ageing, reporting on an Embedded Ethnographic research alongside Creative Ageing practitioners, in creative engagements with People with Dementia.

My time at Pearson Green led me to interrogate my own biases and preconceptions about working alongside People with Dementia, and allowed me to build an understanding of how those biases can be scaffolded or challenged through the physical material environment. Spending time with Residents, I saw how acts of creativity by People with Dementia can affect personal relationships, social constructs, and power dynamics within the environment of Care.

4.3.1 Situating Ethical Issues

The time I spent at Pearson Green was predominately joyful, but at times ethical issues arose in the Care Home environment with implications for Residents, for design research, and for the care sector. These issues highlight tensions acting on Residents, establishing, and reinforcing social constructs and power dynamics deserving of scrutiny. I have chosen to discuss these issues separately from my main account (4.2), to draw parallels between them and to situate the subsequent discussion points. I understand these ethical issues to be symptomatic of a flawed system, rather than the cause of any given flaws. It is my intention that highlighting these challenges evidences the need for greater resources, training, and attention to be focussed on the sector, to support and develop the practice of care staff – rather than to take away from their vital work.

Generally, at Pearson Green, there was an overarching lack of resources available to Residents and staff members. Through my interpretation of the designed environment, and my experience in workshops, this impacted everything because the day-to-day activities of care were performed as cheaply as possible. While Artists and staff did everything in their power to stretch their budgets and build beautiful experiences on shoestring budgets, the material environment of flimsy, plastic, and impersonal artefacts shone a light on how little means those at Pearson Green had to work with.

For the Residents of Pearson Green this equated to a lack of choice and autonomy and reinforced a top-down approach to how they spent their days. During our workshops, due to restrictions on staffing, we never exceeded 20 participants, while more than 60 people live at Pearson Green.

Different actors in Pearson Green within of Residents' care networks; care staff, activities staff, managers, and family members, were occasionally oriented in tension with one another because of their distinct roles within the established hierarchy of the care home. This was manifest in conversation with activities manger, Sophie, who explained over time the ways she understood activities staff were perceived by care staff as 'having it easy'. Sophie described to me how tension arose in their workplace as care staff felt activities staff didn't have to deal with the more hands-on, practical, aspects of Residents' care, such as dressing and toileting, and in response to this tension care staff may place Residents who were being disruptive or having a bad bay in activities sessions, like our

workshops, as an act of retaliation. I was saddened to see Residents described in these inhuman terms, positioned not as people, but as lists of jobs to be got through. Again, I feel that this tension arose from the startling lack of resources available to Residents and staff, which ultimately meant that Residents needs were not able to be accommodated for with the staff available. This highlighted to me the ways in which Care Homes can be understood as both domestic and work environments, and the opportunity for Design to impact those narrative perceptions to reinforce the understanding that, first and foremost, Care Settings are people's homes – deserving of the same care and attention as any other. Conversations around these issues, as in the following early extract from my fieldnotes, also highlighted my oversimplified assumption that because discourse around these issues is common in academia, it would be mirrored in care staff's training and practice – of course, I would come to learn that staff training is not sufficient given the overall lack of resources.

> *"[Sophie] talked about the ways activity staff are sometimes quite separate to the care staff and the care staff don't pick up on the things Activity Staff are doing, and occasionally overwhelm the Activity Stuff with more Residents and they can handle, which is really quite disheartening to hear actually. I mentioned to Sophie in the garden as we were clearing up and putting stuff into the shed for next week that it's surprising to me that coming from the university where there is such a lively body of research and such a growing evidence base in the discourse around Creative Aging that that isn't being filtered down to Care Staff.*

Sophie did say that over time if she encourages creative behaviour - She gave the example of singing with… Residents who really respond to singing over time, "Care Staff might pick up on that and might start to also use it as a tactic."

As activities staff felt looked down on, and burdened by insufficient budgets, this had a knock-on effect on the practice of Equal Arts' Artists, ultimately devaluing their practice and forcing them to fund their projects through charitable bodies rather than as activities of value, paid for by Care Home groups. This tension offered rich opportunity for exploration through material design, which I explore in the next two chapters of this thesis (5.0, 6.0).

Care Home managers level of involvement in Artists' workshops set the tone for how their work was valued, a tension raised by activities staff and artists alike. In Pearson Green, for example, our care home manager chose not to attend any workshops through the year, instead only having short conversations with myself and the Artists at the door most weeks. This was contrasted by my experience with Equal Arts in other care settings where managers would regularly attend workshops with residents which I feel was essential to communicating the value and impact of Creative Ageing practice.

During workshops, a tension was evident in the ways people were deemed to have autonomy and be 'allowed' to make decisions about being involved in workshops and research activity with capacity, and to give consent. While gathering my fieldnotes I was eager to represent voices of people with the most advanced dementia in the

study wherever possible. I found that University Ethics provided little support, in practice, to ensure that the tension around who can consent, when, and in what manner, was navigated clearly. Instead, I found that the messiness and individuality of each person and each interaction at Pearson Green needed to be approached uniquely through practice, and the principal responsibility was on me as a researcher to act ethically and honestly with all the residents – but this left me feeling that I lacked the institutional support of the University, which felt very far removed from my research while I was spending time at Pearson Green. This was in contrast to the reassurance, camaraderie and support I received from staff at Pearson Green and Equal Arts.

Due to the nature of the Care Home environment, there were rare occasions when Residents, or visiting family members acted in inappropriate or offensive ways. I chose not to add accounts of this behaviour into the main account, as they were extraordinary events which sat counter to my lasting impression of Pearson Green. Being grabbed inapporpriately by a resident, the use of offensive language or humour, and occasional arguments or physical altercations between residents did happen on rare occasions, but I didn't' want to distract from my overall positive impression of the time I spent at Pearson Green in my main account. I do feel that these rare incidents are worth reflection, however, by questioning the circumstances in which they occurred, and the manner in which they were addressed. I am also aware that during our workshops I was not encountering Residents at Pearson Green who were having really bad days, or whose living conditions were prohibitive of them

being invited to participate at all. Because of the structure of my involvement at Pearson Green, with the supervision and support of both care home staff and Equal Arts Artists, I was insulated from almost all these incidents. I was, however, privy to second-hand accounts of all sorts of these incidents through established relationships with care home staff and management. This made me aware of the curated care home community in our weekly workshops and draws attention to those residents whose Dementia was so advanced they were deemed, by Care Home staff, unable to ever take part in our workshops.

Through all of the workshops I felt supported in my experience, because of how my involvement was set up with the relationship I had within Equal Arts. On the occasion where serious incidents did arise I was able to report it back to Care Home staff, but also Equal Arts themselves, to make sure any issued were addressed. Of course, I found time and again that the practice of artists themselves, as described in this account, served as a powerful tool to disrupt, question, and address the circumstances in which these ethical tensions arose, and challenge the prevalent paradigm within Pearson Green.

4.3.2 Challenging the Paradigm

Personally, getting to know the Residents over time through repeated

experience in Creative Ageing workshops, and systematically reflecting upon those experiences helped me challenge my own preconceptions about the individuals I met, the nature of receiving Care from others, and the breadth and depth of Residents' experiences whilst living with Dementia.

Starting out at Pearson Green, I was needlessly concerned about communicating verbally with Rosie, or about the cut on Andrew's head (4.2.1); on reflection these evidenced my paternalistic preconception about People with Dementia as needing to be endlessly protected and compensated for.

Causing Polly distress through the manner in which I presented her story, adding needless social pressure to accurately remember (4.2.3.3) was driven by my unconscious bias toward reminiscence and made worse by the confusion between what was objectively true and how Polly experienced phenomena in the moment.

Through building Empathetic relationships at Pearson Green over time, I was able to gradually identify and scrutinise these preconceptions – informing my position as a person as well as a Designer.

Situating my understanding of the generative relationship (Csikszentmihalyi and Halton 1981) between designed artefacts and environments and the socio-political landscape was an important way of making sense of the Care Home as a designed environment.

Through signifiers (Norman 2013), the design language at Pearson Green spoke to unchallenged assumptions. The uniform use of aesthetically jarring pressure relief cushions on each armchair (4.2.1), for example, denoted the tone of pervasive medicalisation in otherwise domestic spaces. Likewise, blinking lights and blaring alarms disrupted the usually calm pace of life at Pearson Green making the space, at times, feel aesthetically unsympathetic.

During Creative Ageing workshops, by contrast, Artists' focus was on the intricate experience of making; resultant perceived aesthetic beauty in the objects was reinforced by celebration of Residents' Art and expression.

A conscious focus on celebrating the moments of creativity during Creative Ageing workshops defined the collective experience of participants and fostered a sense of Artists being open to and sensitised to ideation by those moments. This is echoed by extant reviews of Arts practice reporting benefits to *'personal sense of control, life meaning, and personal satisfaction'* (Cowl and Gaugler 2014, 308) regardless of the material Arts process employed. This was, however, in tension with the perceived agenda of some external stakeholders in the project, whose focus was typically more on the material manifestation of artworks which were seen as tangible, rather than the moments of creation.

Artists' ability to actively shift the social expectations imposed upon Residents within the workshops, or Habitus (Bourdieu 1980), essentially enabled behaviours that may have otherwise been

discouraged, such as singing, making a mess, or creative rebellion (4.2.2.3), to be permissible in the social context of workshops. It is hard to overemphasise the transformative nature of Arts practice at Pearson Green through the dexterous curation of the social and material environment.

> *'(A) fundamental element of human nature is the need for creative work, for creative inquiry, for free creation without the arbitrary limiting effect of coercive institutions, then, of course, it will follow that a decent society should maximise the possibilities for this fundamental human characteristic to be realised. That means trying to overcome the elements of repression and oppression and destruction and coercion that exist in any existing society, ours for example, as a historical residue.' Noam Chomsky (Chomsky and Foucault 1971)*

4.3.3 Individualisation and Expression

Artists' ability to adapt the social (4.2.2.1), temporal (4.2.2.2), and creative (4.2.2.2) nature of Creative Ageing activities to suit each Resident responsively lent insight to further exploration within modes of designed individualisation which are underexplored within existing participatory Design discourses. Key moments of the workshops were those where individuals felt comfortable enough to; break rules, question, and disrupt established expectations. Playful and joyful creativity came about through mutual encouragement, facilitation, and openness. Artists were attuned to the emotional and therapeutic potential (Killick and Craig 2012) of making and creating together.

Whilst calling for greater expression and individualisation for the Residents of Pearson Green, the changing nature of Residential Care Homes can't be ignored as Residents come and go over time, which presents a tension that should be acknowledged. These transient spaces are still peoples' homes. Such tensions present a nontrivial challenge to justifying greater individualisation through material design.

Dynamic flexibility is needed to invite People living with Dementia to meaningfully disrupt and personally explore the bounds of creative practice. The Artists in this study keenly encouraged social dynamics in which people were supported to develop and express individual creativity, often challenging the discourse of the space at the same time as working within it. Recognition of the importance of authorship and autonomy superseded preconceived expectations.

Listening to the choice of each Person living with Dementia was transformative. Creative Ageing practice has the potential to position individuals as experts in their own creative expression. By surrendering ideas of good or bad outcomes, and rather advocating for creativity itself, we have an opportunity to disrupt power imbalances. Handing over the reins and letting people in can lead to aesthetically pleasing processes and unexpected, happy results. Significantly, the act of creative making was democratised and was also celebrated aside from any material outcome.

4.3.4 Context of Creativity

The carelessness of design I interpreted in the context of the Care

environment, signified (Csikszentmihalyi and Halton 1981, Chandler 2017) the prevalence of a medical understanding of people in need of Care, with the material palette of Care Homes bearing the historical echo of asylum corridors (Goffman 1968), through wipe-clean surfaces, fluorescent lighting, and blaring alarms.

This materiality was also plainly at odds with the acts of Care that Pearson Green was centred on; although Creative Ageing workshops were transformative, and I do not wish to undersell the selflessness of Carers and their colleagues working at Pearson Green, I found the love and Care expressed daily by those caring for Residents around the clock was not reflected in the faded plastic glasses, fibreglass ceiling tiles, or looming wingback chairs which uniformly dominated spaces (4.2.1). On the contrary, the work of Care being carried out within an unappealing environment is testament to the determination of Carers to give Residents the best support possible within the bounds of what is possible.

The paper I pulled from my pocket following my afternoon with Barbra (4.2.1) served as a record of our creative collaboration. Likewise, the pieces generated through Creative Ageing sessions were artworks in their own right, but also important manifestations of the creative activities of Residents. The Artists at Pearson Green understood this perspective intuitively, but this was not the case for some external actors in Creative Ageing workshops, such as the funding body managers who insisted on the delivery of a tangible ‘finished’ artwork, or some Care Home staff members who would

occasionally step in to do activities for Residents, rather than seeing a piece only partially finished.

Significant expertise was needed to orchestrate social activities that were collective, whilst also bringing individual meaning for many participants. The degree to which interactions were carefully tailored reinforces the necessity for skilled creative practitioners to ‘be there’, to share in and observe moments of making. I saw how co-creative work in Dementia Care had the potential to ensure reciprocity between actors in contrast to the typical roles of a Person giving Care and a Person in need of Care.

4.3.5 Methodological Insights

Presenting my account as Autoethnographic rather than Ethnographic was a choice made to more closely align the account with the Hermeneutic Phenomenological approach set out in Chapter 3. I intended to represent my interpretation of the experiences of others, to situate myself in the data recognising my dual professional identity as Researcher and Product Designer, and to recount my experience within a community (Adams, Jones, and Ellis 2015).

I feel that writing in this systematic, reflexive, and interpretative form has allowed me to record and express my experience more accurately than a third-person Ethnographic account that would deliver insights for ‘other’ Product Designers to respond to rather than myself.

4.4 Summary of Insights

To recap, this study aimed ‘to gain a critical understanding of Creative Ageing’ through the following objectives:

i. Conduct Embedded Ethnographic Design Research alongside Creative Ageing practitioners to understand the experience of taking part in creative engagements with People with Dementia.

The longitudinal, Embedded research presented in this account informed and situated my critical understanding of Creative Ageing practice. Working alongside Artists and Residents over a year, I was able to explore and experience ways Creative Ageing can bring creative expression, inclusive voice, and moments of joy to People with Dementia.

ii. Examine my own biases and preconceptions about working alongside People with Dementia.

Meeting Residents of Pearson Green challenged a number of my own preconceptions, which I have presented and reflected upon in this account. This reflexive practice has informed my position as a Designer working in this Care Home setting, in terms of my sensibility and my understanding of the interplay between the designed environment of Care and the socio-political structures within it.

iii. Explore how acts of creativity by People with Dementia can affect personal relationships, social constructs, and power

dynamics within the environment of Care.

Beyond my own perception, seeing Residents' self-perceptions change (4.2.2.3), as well as seeing how Residents' families' perceptions could be changed (4.2.3.4) as a result of Creative Ageing practices informs the development of my doctoral inquiry.

In the next study, I explore how the practice of Product Design can help to encourage and scaffold acts of Creative Ageing through the introduction of physical-material resources that I designed, after being informed and inspired by the Artists sensibility to aesthetic, material, and Embodied interactions at Pearson Green.

v. Designing Stuff

As an Art Student I read Victor Papanek's foreboding opening line to Design for The Real World, 'There are professions more harmful than Industrial Design, but only a very few of them.' and to be frank, at the time it didn't really sink in.

Despite this, I have returned to Papanek time and again over the years with fresh eyes, growing to understand the depth of his insight and how it relates to what we do. Papanek was a master communicator, prophetic in his understanding of the potential for design to prohibit peoples' lives and limit their worlds.

Within Capitalism, Consumerism, and Individualism, Designers are placed in an often-unbidden position of power, we are the gatekeepers to *Stuff*. Positioning the political potential of the *Stuff* we make and choosing which people we make *Stuff* for are fundamental design decisions which inform the worlds we want to see.

5.0 In The Moment: Design-Led Inquiry to support Creative Ageing Workshops in Dementia Care Settings

This Research through Design (RtD) study explores Product Design interventions co-creatively developed to support and scaffold Creative Ageing. I collaborated with Equal Arts, Artists, and Care Home Residents to develop a range of physical-material tools to support and inform Creative Ageing practice through open-ended sensory exploration; ‘In The Moment’ cases.

I firstly outline my key research aims (5.1) and study design (5.1.1) using co-creative activities, participatory making and prototype engagements in Care Settings to inform the development of six novel artefacts.

I justify my choice of methods (5.2) informed by my Phenomenological approach (3.0). RtD supported my intuitive Design practice, allowing me to design a focussed and systematic study without prescribing the nature or outcome of the Design work itself. Inductive data collection (5.2.1) took place through a number of meetings, workshops, and tests with Residents. Designing and making were also employed as modes of inquiry, reflecting my own practice and the environmental context of Creative Ageing workshops

in the form of co-creative activities and the development of iterative prototypes in the studio for testing in three Care Settings (5.2.4).

I outline my approach to research Ethics for this study (5.3) with a focus on inclusive methods of consent (Dewing 2007) for testing in Creative Ageing workshops.

I then present the design development of this study (5.4). Co-creative activities were used in initial sessions with Equal Arts' staff members (5.4.1), which guided the design direction of artefacts and the development of transferable 'Design Intentions' (5.4.1.1). I then describe a Participatory Making workshop held in a local gallery to develop concepts for further design investigation informed by Artists' experiences (5.4.2). Following analysis of material, textual, and audio-visual data gathered from this workshop, I developed prototypes of resources designed for participatory prototype engagements in Care Settings, which could be evaluated and reflected upon with Artists (5.4.3).

I then discuss my insights from the development, testing, and making of these tools (5.5). I reflect on the methods used in this study, ethical tensions encountered, and the role of my situated Design practice in ongoing co-creative inquiry.

Finally, I summarise my learning from developing the 'In The Moment' cases, and address my research aims and objectives (5.6).

5.1 Study Outline

This study focussed on situating my insight into Creative Ageing workshops, exploring the methodological alignment, through Phenomenology, of Product Design practice to support Creative Ageing through designed artefacts.

This RtD study builds on the observations from my Ethnographic engagement (4.0), talking to identified tensions and scaffolding bespoke, multisensory experiences for Care Home Residents through Creative Ageing practice.

Specifically, the study aimed **to explore the methodological alignment of Product Design practice with Creative Ageing in Care Homes** through the following research objectives:

i. Support and scaffold Creative Ageing practitioners through designed artefacts.
ii. Scaffold creative and aesthetic expression by People with Dementia through designed artefacts.
iii. Explore modes of sensory interaction through the material language of Design.

In addressing these aims, this case study contributes new insights into knowledge related to how creative engagement may promote greater autonomy and self-expression for People with Dementia with designed artefacts, and adds to the growing literature on how to conduct sensitive and contextually responsive Design-led Research in Care Settings.

While Creative Ageing practice is accepted as valuable as an activity in Care Homes, generated artworks themselves struggled to find a meaningful home in the long term, as part of the landscape of Care Settings (4.2.1). Trying to find ways in which my practice as a Product Designer could leverage value, generate support, and advocate for Creative Ageing practice was one of the principal justifications for this inquiry.

5.1.1 Research Design

Co-creative activities – involving a Participatory Making workshop with Artists, and prototype engagements in Care Settings - informed design development that was Person-Centred and Design-led. The main research activities were as follows:

I ran three co-creative Design sessions with Equal Arts staff and Artists who run Creative Ageing workshops (5.4.1). Across these sessions, we used techniques like mind-mapping, swim-lane charts, and group sketching, to co-create initial concept explorations and emergent ‘Design Intentions’ (5.4.1.1) for the project.

Artists were invited to a Participatory Making workshop to explore how they may use and adapt physical-material artefacts to suit their practice running Creative Ageing workshops (5.4.2). This co-creative workshop was held at a local Arts venue and documented through video, photos and audio. This data was analysed in consideration with the artefacts made by Artists to reform my prototype development.

Resultant prototypes were then included into Creative Ageing workshops in three Care Settings (5.4.3). I undertook Participant Observation in these sessions before further deign development informed by Residents' experiences.

Finally, Artists were invited to incorporate designed artefacts into their Creative Ageing workshops and provide feedback on final prototypes which is explored in the Discussion section of this chapter (5.5).

5.2 Justification for Methods

Choosing methods to work within the responsive RtD approach outlined earlier in this thesis (3.2.3) allowed me to work as a Product Designer in the context, keeping the value and insight generated throughout my Ethnographic work in hand, while working responsively with Creative Ageing practitioners and Residents.

5.2.1 Data Collection

As this study took place across different research venues, I collected different data types in each. During the co-creative sessions I collected fieldnotes as well as designed material outputs: sketches, mind maps, swim lane charts and stakeholder mapping.

Prototype Engagements in Care Settings were documented adaptively through fieldnotes, sketches and photography in response to my inclusive approach (Dewing 2007) to Research Ethics and participation for this study. Gathering identifiable personal data with participants carried particular ethical attention, which I outline below (5.3).

The Participatory Marking workshop was documented through video- and audio-recordings and photography; these multimedia data types were simultaneously analysed using a novel method of visual analysis presented in the next section.

5.2.3 Analytic Methods

Thematic Analysis (Braun and Clarke 2006; Braun, Clarke, and Gray 2017a) and Visual methods (Eric and Pauwels 2011; Pink 2013)

informed my analysis, framed by my methodology, focussed on the systematic interpretation of participants' expressions of experience. This method's distinction is the inclusion of the mixed media data detailed to allow an analytic focus on the aesthetic and material nature of experience that includes - but does not give primacy to - spoken (e.g., textual, transcribed) and Embodied (e.g., photographed or gestural) expression. I reflect upon the methodological insight gained through this approach later in this chapter (5.5.3).

This method enabled a qualitative engagement with multiple forms of data, including visual data (photographs, hand-drawn sketches), video data (capturing gestural, physical interaction), transcripts of audio-recordings, plus physical-material objects, including found objects, and artefacts made in workshops made from provided workshop materials (e.g., wool, clay, cardboard).

Following initial coding, I conducted a second analysis incorporating these mixed data. Transcription was coded alongside research engagement with corresponding time-stamped photographs and video footage, identifying key words, gestures and interactions that were significant.

A final stage involved a collaborative analytic process with the original participants to refine the initial themes that were generated. The method for this stage is informed by photo-elicitation techniques from Visual Sociology (Pink 2013), whereby the presentation of themes was supported by, and directed, my selection of raw data to present and invite analysis and reflection, again in a Phenomenological and sensory mode.

5.3 Ethics

There were specific considerations given to the design of consent, practice, and data collection relevant specifically to this study. An extract from the co-authored University Ethics application[17] including sample information sheets and consent forms for this study is attached as an appendix to this thesis, for reference (9.7).

For research activity in Care Settings staff and Care Home managers were provided an information sheet and asked to give their informed consent for research activity.

Where collecting and identifiable data, such as photographs, Residents' informed consent was to be co-signed by Care Home staff or a family member. A process for proxy consent was also designed to ensure that individuals unable to provide informed consent due to moderate to advanced Dementia, a significant proportion of Care Home Residents, were not excluded from the study. Murphy and colleagues (Murphy et al. 2015) synthesise different strategies used for maximising inclusion of People with Dementia in qualitative research, informing their CORTE (Consent, maximizing Responses, Telling the story, and Ending on a high) guidelines, which informed the design of this study. All Residents' assent was continuously monitored (Dewing 2007).

Care Home staff members were invited to read the relevant information sheet ahead of time and invited to ask any questions before I sought the consent of Residents. Information sheets and

17 Northumbria University Ethics Submission Ref: 10683

proxy consent forms were provided for any relatives of Residents who Care Home staff felt were better placed to be consulted regarding consent.

Residents were guided through the consent process by a Care Home staff member who was in a position to give consent on their behalf (Professional Practice Board 2008). I understood that staff would be acting in the interests of the potential research participant and should not be influenced by a conflict of interest (Slaughter et al. 2007).

Consent given on behalf of Care Home Residents was to be considered on an ongoing basis by paying careful attention to each individual's verbal communication, body language, tone, and facial expression in Creative Ageing workshops (Slaughter et al. 2007).

5.4 Research through Design Development

5.4.1 Initial Co-creative Sessions; Planning and Problem-Finding

I held three co-creative Design sessions with Equal Arts staff: Directors, Alice and Douglas, Communication Designer, Kerry, and Artists, Betty and Clare.

We conducted co-creative activities intended to identify opportunities for design development in the context: relationship and stakeholder mapping, swim-lane diagrams and sketching; these allowed us to contextualise the findings from my experiences at Pearson Green in participants' experiences and identify opportunities for designed interventions.

Sketching, material samples, and photo-elicitation (Pink 2013) were used in the later meetings to further articulate principles for investigation. These meetings were captured through fieldnotes and the physical materials generated. Presenting generated themes back to Equal Arts in our last session, we *co-defined* the following emergent Design Intentions, presented below, that informed the next stage of co-creative work.

5.4.1.1 Emergent Design Intentions

Imagination

Imagination describes the shift of perspective from prescriptive to exploratory. This intention also encompasses a future-facing

dialogue, which takes a questioning and creative approach to engagements rather than drawing on reminiscence. This Design Intention promotes playfulness and a productive ambiguity that fosters an open-ended engagement.

Materiality

The beauty of the social and artistic interventions in Creative Ageing workshops should be understood and evident in created artefacts or activities as objects of aesthetic beauty. A grown-up materiality, specifically filling the aesthetic gaps in Care Settings represents turning-away from infantilisation and institutionalised medicalisation in favour of aesthetic, artistic, and coveted material interactions.

Agency

Agency calls for interventions which invite individual expression and support Residents to find creative directions to explore. Artefacts should inspire and intrigue, without compensating or stipulating.

Legacy

Understanding that the social nature of Creative Ageing is of equal or greater value than the material outcomes. Tools should scaffold and support these passing moments in an appropriate and dynamic fashion without demanding tangible

outputs. Any outputs that are generated, however, serve as a record of Residents' creative acts, and a call to future creative expressions.

Following our initial discussions and reflecting upon the Design Intentions presented, we settled upon creating a 'tool case'. This was intended to enable Artists to bring out the elements of their practice facilitating Creative Ageing which they and Equal Arts found most desirable, as Alice put it, *'It's all about props and stimuli to keep people fresh!'* We considered the metaphorical resonances of tool cases, as signifiers of kept secrets, innovation and exploration – collections of objects with which to approach creative acts, rather that prescriptive activities to be completed.

5.4.2 Participatory Making at Shipley Gallery, Gateshead

Artists were invited by Equal Arts to join a longer, Participatory Making workshop held in Gateshead's Shipley Art Gallery. The schedule for the workshop was designed to be as simple as possible, with a focus on material elicitation to echo Residents' experience of Creative Ageing workshops with a deliberate attention to creating a welcoming, relaxed environment for creativity.

Attending were Equal Arts' Director, Alice Thwaite, as well as Artists Poppy, Betty, and Michael. Betty is a Visual Artist, Poppy is a Storyteller, and Michael is a Set-Designer. I was supported by two volunteer facilitators from Northumbria University, Callum and Arthi.

I designed a short ice-breaker activity – inviting participants to each decorate handmade a matchbox in the manner of a self-portrait. Following the icebreaker, I gave a short introduction was followed by the main making activity.

I invited Artists to use the craft materials provided to express their insight into the development of tools to reinforce Creative Ageing practice. Participants were divided into two teams, with a facilitator per team. At each table, Artists were given a ‘blank’ tool case made from simple cardboard to fill, decorate, hack, or adjust as desired.

Artists were welcomed to suggest any changes to the case itself, inside or out, as well as to discuss tools they would like to see integrated into it, and anything else that came to mind. I asked participants to discuss and respond to the following questions, encouraging Artists to be ambitious, exploratory, and playful.

> *What tools are essential to your craft?*
> *What challenges have you run into in past workshops?*
> *What do you wish you could give Residents in workshops that you currently can’t?*
> *How could you help other Artists learn from your experience?*

Following the main making activity, we served tea and cakes, after which we held a group discussion where each team presented the tools they had created to the other team in an open discussion.

Video Analysis

A wide-angled video camera was set up to document the whole workshop which was recorded following the informed consent of all participants and each table had a dedicated voice recorder running throughout. I asked the facilitators to also record hand-held video and photos of anything which caught their eye during the course of the workshop. All of this mixed data was then collated for visual analysis.

Video, photos, sketches, audio, and transcription were synchronised onto a collective video timeline, allowing me to re-watch and analyse moments from the workshop for systematic visual analysis.

Video analysis allowed me to arrange all of the generated mixed media data in *real-time*, presenting the activities of groups working separately and simultaneously. Using video production software, audio, video, and photographic data were arranged on a visual timeline, presenting instances of activity as they occurred during the workshop. Transcription was completed as multiple closed caption files, bringing metadata as timestamps to each section of the transcription and linking it to the original video documentation.

Following this visual analysis, I generated four themes that offered opportunities for design development to be presented back to my research partners: Endorsing Ambiguity, Sensorial Exploration, Person-Centred Creativity, and The Aesthetic Environment.

Endorsing Ambiguity

Echoing the ‘Imagination’ Design Intention (5.4.1), participants

encouraged open-ended provocations that focussed on creativity and did not equate accurate remembering with success, as Alice noted:

> *'There can be that pressure around reminiscence, that you're supposed to remember what you did, and actually if you don't, then it's nice to bypass that with other stuff…'*

Alice reflected that purposefully sharing in *'the unknown'* can see traditional power-dynamics around People with Dementia shift; *'it's this idea of Dementia [that] you suddenly don't know what things are, but if none of us know what things are then it opens the door…'* Michael likened this to wandering around a museum collection of unattributed objects in a collection and speculating, with a friend, as to their function, effectively levelling the playing field of knowledge.

Poppy, the storyteller, discussed using deliberately distorted imagery for stimulation:

> *'…It's sometimes quite good doing storytelling with a pixelated image, not so much that it looks really rubbish but sometimes, if it's a black and white image and it's a bit pixelated then… [it] makes the story go off in all different angles.'*

Michael described how in the past he had started a Creative Ageing project off with a deliberate provocation. He described bringing a heavy wooden door he pulled from a skip into a workshop and planting it firmly on the table in a Care Home with the intention of disrupting the norm, leading to a creative exploration in hopes

of revealing the interpersonal relationships between People with Dementia in the Care Setting: *'It kind of shifts reality a little bit… it's got a surreal element to it but it's an everyday object as well'.* The incorporation of physical-material objects as a provocation to pose questions in Creative Ageing workshops is similar to the way in which Timeslips (Killick and Craig 2012, 60–61) method uses photo-elicitation followed by a series of questions posed to build a hidden narrative.

This theme of Ambiguity harked back to the Design Intention laid out during the last round of co-creative sessions, calling for Design work that focussed on the imaginative, and the shift of perspective from prescriptive to experimental, using the environment to encourage playful exploration. Michael put it succinctly, *'I think half-a-dozen objects is a story.'*

Sensorial Exploration

Both groups suggested the addition of small pieces intended for sensory stimulation; each with a sensitive, delicate aesthetic approach to focussed activities around individual senses i.e., looking at pictures, smells, sounds, or textures.

Betty offered a delicately crafted envelope that she folded from tissue paper, inside of which were inch-square swatches of different textile materials. She leaved through them gently as she described them to the group:

'This is a little, um, little pack of materials, so if you've got

anyone who just, who just... who wants to just feel things…You know? Who isn't able to engage with say a particular project, or isn't able to listen to instruction… but then the, sort of, materials you'd use might be like silks and velvets...?'

Poppy echoed Betty's quiet gesture, with her hand-made representation of Tibetan Tingsha – a pair of small prayer cymbals joined with a ribbon. Poppy hoped to use these to bring a noisy intergenerational workshop to be quiet, without the need for shouting.

'Have you seen this thing? It's like two disks, small disks... and it's on a string, and you pick it up, and it just goes ting ting…'

This prompted discussion on the manner of presentation itself, and the feeling that higher fidelity materiality and manufacture through Product Design would elevate the nature of an artefact's reception, and therefore interactions surrounding it. Poppy suggested that high-fidelity manufactured artefacts may lend a professionalism and excitement to Creative Ageing. She reflected:

'In the past I've shown up with, like, a few bits and random bobs, and a piece of paper that is printed from the printer. But it's that thing about looking quite official, like, if you showed up with, like, a box like that [the cases] you get the staff, quite intrigued and interested straight away, I think?'

Alice illustrated the propensity for designed objects to connote institutional trust allowing Artists to potentially push those boundaries

a little,*'There's something about things that give weight'*, referring to objects with a refined use of materiality and manufacturing.

Both groups also explored mechanisms though their creative concepts to add a level of intrigue, echoing the engagement around the mechanical Singer sewing machines used at Pearson Green (4.2.2.1). Discussing question cards as a method to stimulate creative conversation Poppy suggested mechanical alternatives to printed cards,

> *'I think those little cards would be good to, kind of [present questions] in like, an interesting way. Like, you know those balls that you shake and then a question comes up?'*

Michael and Alice created a version of an apothecary case, or typeset drawers, to be filled with these little sensory marvels through mechanical actions, *'Small things in drawers and hidey-holes…'* Betty offered found objects which she often incorporates into Creative Ageing workshops,

> *'...Shells, leaves, bits of, just, found-stuff, that I've got in my studio. Buttons... Oh, a box of buttons! Because you can do stories from that, you can draw from them. You can have a little, like, chat about them…'*
> *Betty*
> *'It's like a Sensory Cabinet of Curiosities…'*
> *Michael*

These participant reflections generated insight into the value of sensory exploration, prompting me to consider novel and aesthetic ways of using the senses with artefacts in Creative Ageing.

Person-Centred Creativity

Participants highlighted the need for individualisation and adaptability in Creative Ageing. These individualisations needed to account for each person in line with Kitwood's 'Facilitation' interaction; *'… enabling a person to do what otherwise he or she would not be able to do, by providing those parts – and only those – that are missing'* (Kitwood et al. 2019, 109).

Discussing tracing in workshops, Alice commented:

> *'There's a fine line between being prescriptive and not co-creative, and I think it's important to keep challenging that and keep trying to move people away from that if possible…'. [..]*

Artists need to be flexible, and prepared for any eventuality, Betty said:

> *'You know, sometimes what works for one group doesn't work for another group, and that's what I'm saying about that plan A, B, and C ...like, I go in with a main idea, that's my main plan but actually it might not work out because something might occur, someone might kick off...um, they might just not be in the mood for this, so I've always got a plan B and a plan C.'*

Alice discussed the opportunity for gift-giving, and the power that the dynamic of it connotes:

> *'I think that is something that is taken away from us. If we don't have that anymore, we haven't got purpose and we haven't got the opportunity to give, that's two very fundamental things. Which is why the idea of care, is so, often so, wrong in Care Homes because they're not caring (laughs) they're actually taking things away…'*

Similarly, we discussed the notion of what should be counted as a 'good' outcome from Creative Ageing, and how that differs for each individual. *'You know, it could be an hour and somebody doing one mark and that's just as important... in that moment, which, if you acknowledge it and recognise it and they recognise it, I think that's as valuable'*. Though this perspective was held by each of the Artists they also described occasions where Care Home staff would often over-step the delineation Kitwood makes by completing a creative activity *for* a Resident, rather than helping the Resident, which was again something I encountered during my time at Pearson Green (4.3.1).

Artists also discussed how the necessity for sensory inclusivity, specifically for Residents who may have sensory impairments, can become a generative and creative part of Creative Ageing activities themselves. Michael and Alice created a mythical machine for *'translating-gestures'* in their tool case after discussing a hand-cranked music box:

'You can translate something, so people can write scrawl blob or whatever, and then that turns into music… so this is writing transformed into sound.' Turning a texture into a movement, or a tune into some colours… 'I want everyone to have access, there being no bar I suppose… So, you can take something that everyone can do... however able-bodied they are, and you can use that to translate into something that makes it into sound, but you could do that with other things as well...'

Betty described the rhythmic painting style of a Resident:

'There was a woman who, erm... I worked with at [a Care Home] and she had, er... big pieces of paper and she had black drawing ink and she just kind of...because I think, maybe she'd had a stroke or something... It was very much just... dots all along... the piece and then she just, sort of… it looked almost like it could be, kind of... music!'
'Maybe in her head it was?' said Alice.

This relationship between creative modes of communication i.e., turning a painting into music, highlighted the creative potential of inclusive practice.

The Aesthetic Environment

The environment, aesthetically and socially, was seen as central to the success or potential inhibition of Creative Ageing workshops.

When discussing the question of what they would like to give

Residents that they currently cannot, Betty and Poppy discussed the physical environmental context of Creative Ageing workshops. *'I think overall, actually is actually... good space'*, Betty responded. They highlighted the practical issues of fitting Residents using wheelchairs in around groups of circular tables, and the symbolic difficulty and imbalance that this common problem represents.

Creating a domestic environment in a Care Home posed a challenge, even for visual Artists. Poppy echoed my insight from Pearson Green:

> *'Some places that you go to they feel a lot more homely and other places feel like... corporate, like, strip white lights like; 'Eurgh!' Like, I think, I've only seen lamps in Care Homes in like a few places, but it made such a difference to the whole feel.'*

She talked about wanting to bring the outside in and the difficulty that Artists encounter with Care Home staff while trying to change the aesthetic environment.

> *'I wish you could bring the outdoors in a clever way… The smells and the feel of things. So, like, the smell that is at the seaside and the feel of the grass, and like the feel of sand.'*
> *'I wish we could make people feel more connected to the space that is inside... for example, erm... when the walls are, don't have 'dance in the rain' on them, they'll have Residents' artwork, like, that's a work in progress with Care Homes I*

think...' she offered. 'Yeah, it's a tricky one...' confirmed Alice.

Though brokering permanent change to Care Home environments is tricky, Artists did offer techniques for temporarily changing the sensory environment which had worked in the past. Poppy described how she uses digital atmospheric sound as well as music with a Bluetooth speaker to enrich the setting of a story.

> *'…They'll just refer to something and I'll just try and get the sound, like the sound of it. Like, if we, if we said, 'Oh, he was at the seaside.' Then I might just put, like, seaside sounds on while we read the story out...'*

Michael shared a similar technique, previously achieving this to a degree with light and shadow, using coloured acetates and found objects on an overhead projector to wash entire rooms in colour and build stories:

> *'I used an overhead projector, put it on the ground, got some dried out dead plants and put those on top of it and projected them onto the wall to that they were tree sized...and it was a small intervention with some simple equipment like that. So, you can use and shadow to transform a space, and with a green gel on it was a forest!'*

This transformation of scale was mirrored by the visual Artists. Betty and Poppy discussed using lining-paper to work at a giant scale and move away from more common modes of work. Poppy remarked,

‘Oh yeah, I live for the lining paper!’ as they discussed covering floors and walls with lining paper to give Residents space to explore and create freely when drawing or painting, something I had also experienced at Pearson Green.

Poppy and Alice reflected on the possibility of the projector technique with added digital interaction.

> *‘Like, to bring that kind of thing of there being something on the wall like a text and then... Or sorry, some, like a video, and then when you see certain things coming up... Like, an old cottage then... There’s some sound... like, to set a scene... and then...’ Poppy began. ‘Yeah. So, it’s changing the environment?’ Alice offered. ‘Something that I think we very rarely do brilliantly is that… changing a Care Home environment to be something different and interesting.’*

This insight framed an opportunity for Product Design to broker the introduction of artefacts generated by Residents into the accepted Design vocabulary of Care Settings by encouraging and informing Creative Ageing.

5.4.3 Developing Prototypes and Testing in Residential Care Settings

Having collated, coded, and analysed data from the Participatory Making workshop, I presented excerpts from the workshop back to Alice, Equal Arts' Director, for her feedback and reflection. Excerpts took the form of short videos, which are presented in an accompanying appendix (9.4). Alice and I discussed these insights around the themes outlined above, and decided which areas to explore through the development and testing of physical material prototypes. Photographs detailing the development of prototypes for each tool are also presented in the Photo-book that accompanies this thesis as an appendix (9.1.3).



Figure 19. In The Moment Case Credit: The Author

In The Moment Cases

Practically, Artists needed a way of containing all of the tools developed, and whatever else they needed for Creative Ageing workshops. We referred to this as the ‘case’ that contained resources that could be provided to Residents. Design development for the case itself was focussed to deliver on a few key areas of discussion. It was important to Alice and for Equal Arts that the case itself be an object of beauty and intrigue. Relating back to our earliest co-creative sessions, as well as comments made at Shipley about discovery, provocation, and *‘little things in hidey-holes’* we discussed the performance of an Artist pulling out this box of tricks and unveiling what creative surprises were inside.

Materiality was another key consideration and was directed by Equal Arts [staff and Artists] comments, as well as my own insights from Pearson Green regarding what was *missing* in a domestic environment dominated by shatterproof plastic, wipeable tablecloths, and rubberised support cushions. I chose simple pale plywood, constructed using finger joints, with a handmade raw leather strap – which will develop a worked patina over time, and brass fixings, which were suggested at the Shipley Gallery workshop – the lustre of brass, cool to the touch, is seen as hardwearing, precious and grown-up, while also being antibacterial hence its historical use for handrails, taps, and doorknobs, inviting fiddling.

Using card prototypes and sketches, I experimented with modular systems – a gird of magnets, removable dividers, stackable containers, mechanical sliding walls and a piano hinge – but Equal



Figure 20. In The Moment Case Detail Credit: The Author

Arts opted in the end to keep the box very simple. It is sized to house A3 paper lying flat and has a simple, removable lid.

During testing the tool case was knocked cleanly onto the floor more than once in a busy workshop, reinforcing its need to be sturdy, as well as Residents' desire to explore and discover the case hands-on.

The title for the cases *'In The Moment'* was chosen by Equal Arts, though happily echoes previous calls within Design and Dementia literature for an approach that closely align with this study, Treadaway's 'In the Moment' objects (Treadaway et al. 2016), and Killick's 'Playfulness In The Moment' (Killick and Allan 2012, 61–66). Treadaway defines an *'In The Moment'* object as such:

> *'No cognitive skill is required to activate them, and their carefully designed material properties stimulate a variety of senses including sight, touch, sound and smell. As objects to share, they are able to broker non-verbal interaction and emotional communications…' (Treadaway et al. 2016, 8)*



Figure 21. Portfolios Credit: The Author

Portfolios

Residents keeping track of their artwork formed a simple but important finding from Pearson Green, which was echoed by Artists in the Shipley Gallery Workshop. We decided that the inclusion of simple portfolio folders in the tool case may give Residents the ability to take ownership, and potentially keep hold of their own artworks between Creative Ageing engagements, as well as in the time following the completion of projects over time.

We also discussed the potential for these simple portfolios to evidence the value of Residents' participation in Creative Ageing activities, to support communication with those around each Person with Dementia, friends, carers, and family members. This is something that I had struggled to communicate at Pearson Green when I got the chance to meet Fred's son and daughter-in-law. This was partly in response to our 'Legacy' Design Intention (5.4.1.1), aiming to understand ways outcomes generated through Creative Ageing, serve as a record of Residents' creative acts, and a call to future creative expressions, and may scaffold conversations with their circles of Care.

I chose kraft card, coloured bound elastic and another brass fixing to make these prototypes. The portfolios also have a cut-out slot on the front-cover to that a photograph can be inserted into them for each Resident, or project.



Figure 22. Retrospective Recorder Credit: The Author

Retrospective Recorder

The Retrospective Recorder, as it came to be known, was intended to be a listening ear in Creative Ageing workshops, continually recording notes which Artists could then choose to save after the moment had passed. As Artists are doing double-duty by facilitating workshops whilst also trying to capture the moments created, we were collectively eager to explore aesthetically inviting ways of documenting workshops that didn't pose an ethical risk or invite a technological or clinical artefact into the carefully curated environment.

Using the Design vernacular of 1950s reel-to-reel recorders, I created a rounded box with a rotating display, the direction of which would indicate if it was recording (clockwise) or remembering (anti-clockwise) I also incorporated physical-mechanical dials and controls on the surface.

The piece was prototyped using paper and card models before 3D printing, with the final artefact indented for injection-moulding. It was finished with knurled dials and a matching leather and brass handle detail as the 'In The Moment' case. This retro-aesthetic was considered contemporary and non-fussy, without intending to overtly promote acts of remembering. My main design intention was to focus on semiotics, and to make sure the object explained its function visually.

Though a satisfying and provocative artefact in itself, the recorder was only prototyped to a looks-like stage, as I was unable to



Figure 23. Retrospective Recorder (Side) Credit: The Author

secure the resources needed to realise and test the audio-interface interaction intended.

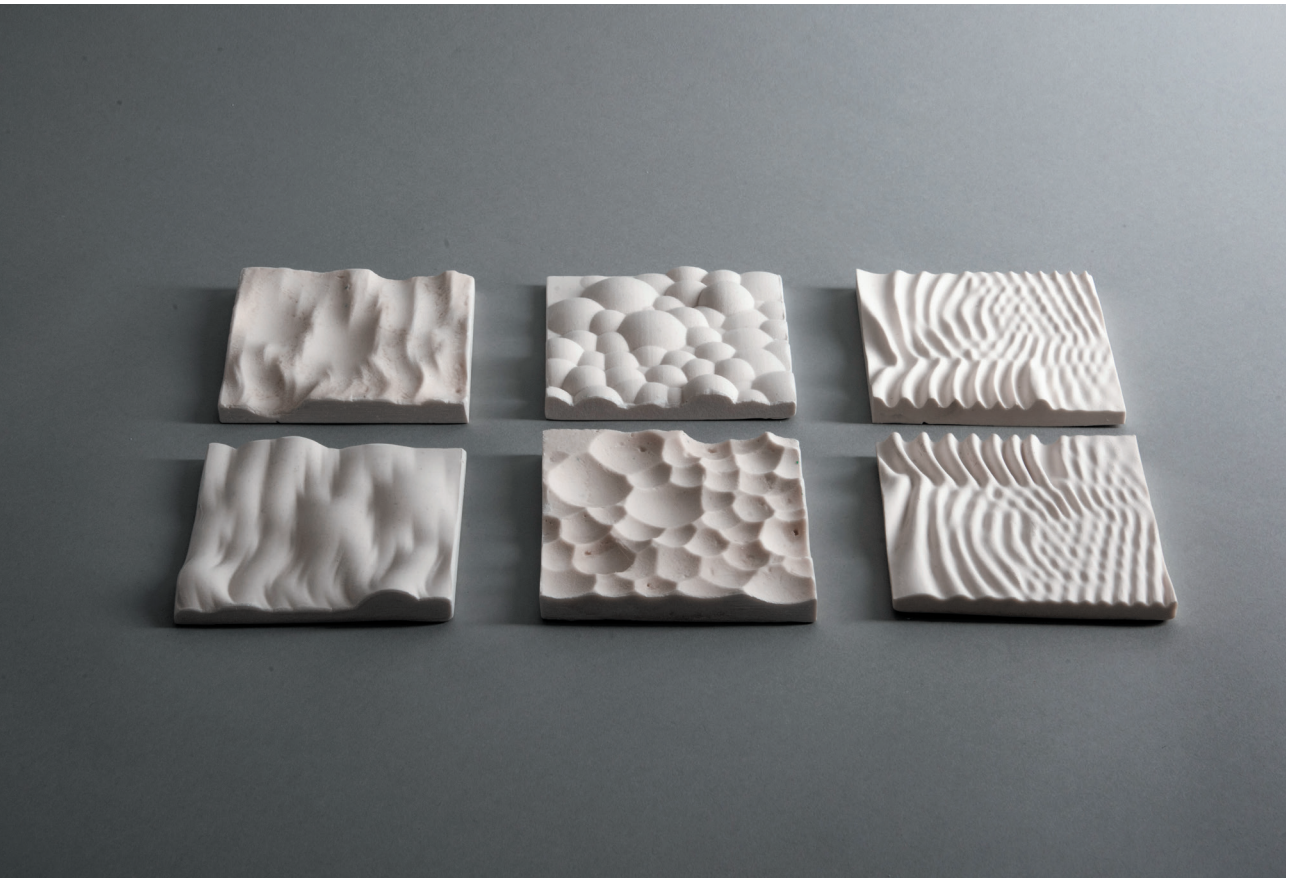


Figure 24. Texture Blocks Credit: The Author

Texture Blocks

Exploring the ideas of Ambiguity, Found Objects, and Generative Sensory Stimulation, and the ‘Materiality’ intention (5.4.2.1), we chose to develop an object based solely on exploring textures.

These ‘texture blocks’ were meant to be inviting, unusual, precious, satisfying, and ambiguous, achieved to varying degrees through a range of approaches.

I initially presented versions of the texture blocks created as a kit of parts, air-drying clay housed in a custom frame would be sealed behind a plastic wrapper so that Artists could create whatever texture they liked by pressing objects into the clay and letting it dry hard. Testing out this version of the blocks in Care Settings they had mixed results.

I created one such texture block by pressing a wave design into the surface, I was told by certain Residents that the little cast wave looked like pebbles, looked like something at the seaside, looked a bit like wrinkly skin... We discussed the sharp pointy porous objects that I made by pressing pasta into the clay with a few Residents, one of whom suggested it look like coral, or like the seaside, or like rock; many Residents commented that it was very sharp. The wave imagery one stimulated some lively conversation around local beaches and which ones were Residents’ favourites.

Discussing these insights with Equal Arts staff members and Artists, I decided to explore a more ‘permanent’ material quality, and a more

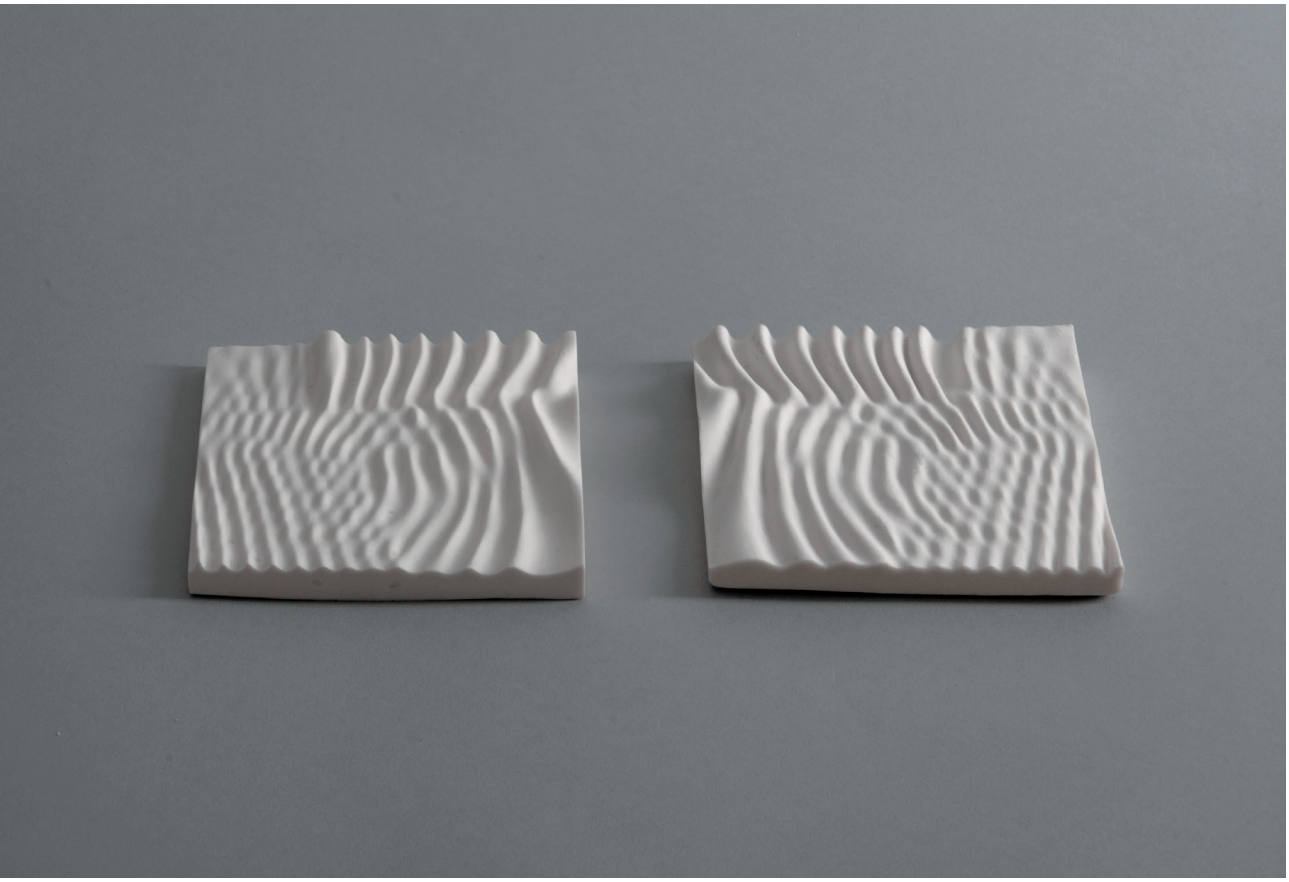


Figure 25. Texture Block Pair Credit: The Author

machined aesthetic.

Following this demarcation, I designed four sets of texture blocks in CAD, each texture was inspired by a story from my time at Pearson Green. I was deliberate to avoid undercuts, using a variety of techniques – parametric modelling, photogrammetry, NURBs modelling, and physical simulation – for each form which then be 3D printed using fine-detail Selective Laser Sintering (SLS). After hand-finishing them to a high standard with fibreglass filler I then cast the textures, capturing both the positive a negative relief of each print as a silicone mould allowing me to experiment with multiple final casting materials and finishes without the need to re-manufacture parts. Casting these mating pairs of texture blocks in Jesmonite gave a finish similar plaster, but with the added benefit of being non-soluble, cool to the touch, and food-safe when sealed.



Figure 26. Smell Boxes Credit: The Author

Smell Boxes

Another exploration into sensory artefacts were boxes designed to house smells. These simple boxes involved a wealth of material exploration and were revealing in terms of how and why they would be used by Artists and Residents alike.

The form of the little box, the function of a lid, and the ability for objects inside to be hidden or revealed were all areas for experimentation. On one occasion, when trying out a set of plywood prototypes with removable blue lids, a Resident explained to me how they worked:

> *'You just need to take the lid off and see what it looks like!' – as she sat next to me. I hadn't appreciated the way the interaction would be appropriated until testing, as the Artists and I had intended that activity to be a guessing-game, but the Resident found a pretty effective shortcut!*

Testing different finishes was helpful. Another Resident proudly produced a 3D-printed smell box from her handbag and explained to me that she had won it in a competition that morning as a prize, and it would go on her mantlepiece when she got home. I took that as a sign that she liked it, as it sat nestled in her handbag among the rest of her loot, an intimate glimpse into this significant part of her identity (Buse and Twigg 2014).



Figure 27. Picture Frames Credit: The Author

Picture Frames

The picture frames were developed to respond to observations that Artists had shared. Given the time constraints of Creative Ageing practice, Artists most commonly provided images for stimulation in the simplest way possible. Pictures would be found on a web-browser at home, right clicked, and printed directly.

This workflow was quick and effective but had a couple of downsides. The image would print quickly but would include a long URL address along the bottom of the page. These printed images were often depicting beautiful imagery, or existing artworks, but the inkjet finish didn't do them aesthetic justice. Finally, flimsy bits of paper were hard to prop-up to draw from, or to show to Residents in wheelchairs, and they often ended up being folded up and lost during Creative Ageing workshops.

We discussed mounting images onto card, and Betty commented how schools often use laminators to address similar problems using images with children:

> *'We're not keen on lamination…'*
> *'…And it's like it's got that kind-of, school feel about it...'*
> *'…And especially when you're gonna use it once!'*
> *'…Lamination still feels a bit… not solid.'*

Following our discussion, we decided on simple wooden picture frames, intended to take full-sized A4 sheets straight from the home printer, or folded in half, which prints could be snapped into for

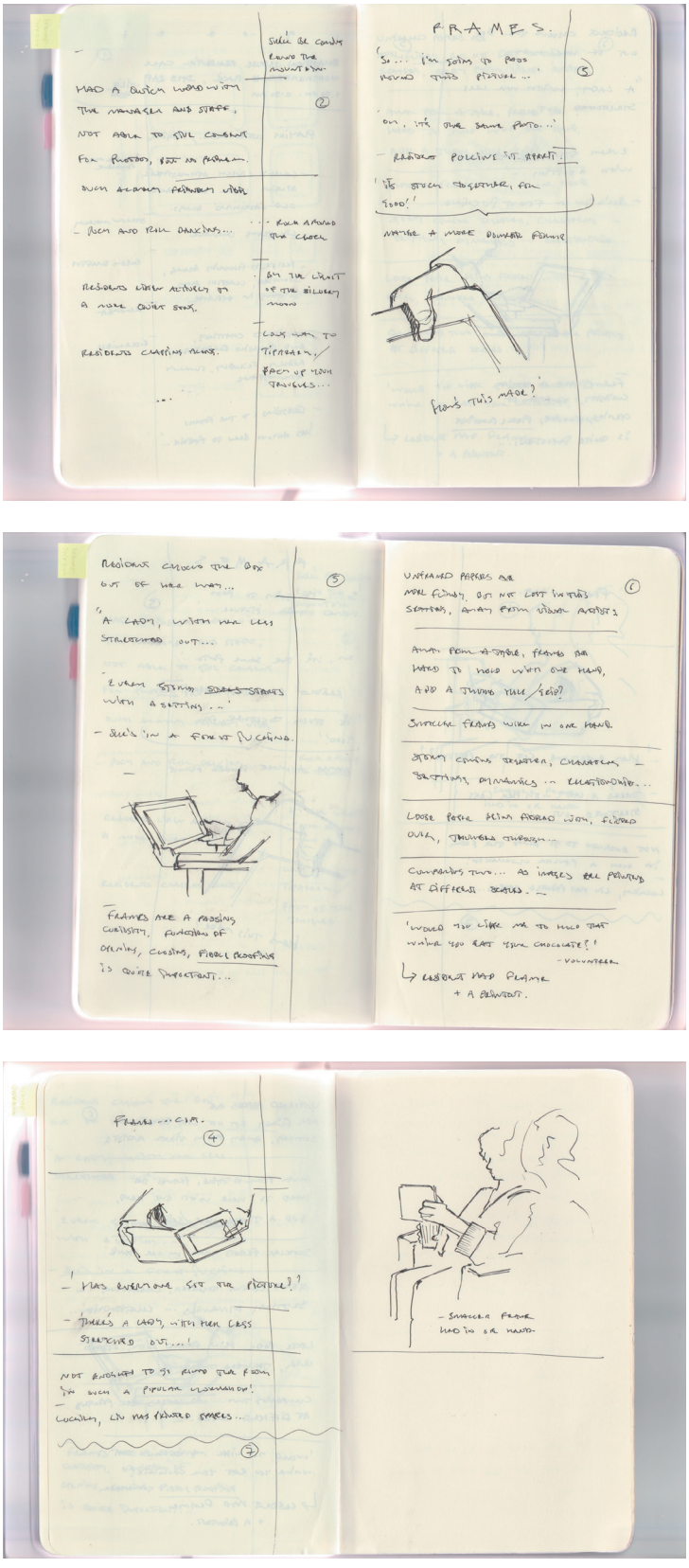


Figure 28. Fieldnotes and Sketches Credit: The Author

Creative Ageing workshops, and then removed for the frames to be re-used.

The frames were designed to mimic the ‘In The Moment’ cases, in pale plywood with rounded corners designed to be handled. Initial prototypes were simply constructed with laser-cut parts, and stuck together with double-sided tape. This prompted some unexpected investigation into their manufacture, inspiring an amended design.

Ahead of one prototype engagement I had quickly stuck together some prototype picture frames with double-sided tape due to time constraints. Two Residents discussed the construction of these frames:

> *‘How’s that made?’*
> *‘It’s stuck together for good!’*

As they discussed the construction of the frames, one eventually ripped the prototype apart completely with her hands to satisfy her curiosity. Following this, I decided to incorporate visible magnets into the frames for ongoing Creative Ageing workshops such that their function would be self-evident on investigation.

5.5 Findings

This study, and the resultant novel artefacts, contributed to my understanding of how Product Design practice can support Creative Ageing for People with Dementia, delivering methodological insight that has shaped this thesis and my questioning approach to Parametricism (3.2.3). Incorporating the voices of Artists into product development through co-creative and generative activities allowed my RtD practice to meaningfully align with that of Creative Ageing Practitioners. Through final evaluative feedback, Artists found that the breadth of tools co-envisioned and developed in this study worked well for practicing focussed sensory work with Residents and with each other, as well as in bringing a broad set of creative tools to workshops to account for divergent needs.

The different objects within the toolkits were found to function as creative back up plans for Artists, as Betty highlighted, *'I think if you've got this box, have with all these little bits in, if [workshops] aren't going like you planned, then you can just bring something new out of here!'* The box was found to give Creative Ageing practitioners material tools for responding to the multiplicity of experiences and/or expressions that People with Dementia may have in a given workshop engagement (Morrissey, McCarthy, and Pantidi 2017).

Unassuming elements of the tool cases, such as the simple portfolios, were seen to help encourage conversation around Residents' artworks, with the aim to transform spaces. Poppy said,

> *'I feel we should have Residents' artwork on the wall because*

it's theirs. They can show their families, their friends. It's meaningful, and then it can be changed'

They also scaffolding conversations with families, as Betty noted:

'I've been working with your Mam, we've been doing this wonderful work, I've found out so much about her life... involving them in your sessions is the ultimate wonder scenario!'

This insight suggests further lines for inquiry into the ways that Product Design could be practiced in *allyship* to Creative Ageing, in the hopes of letting Residents meaningfully interact with the designed environment in which they live.

Artists also commented that portfolios could supplement Residents' Care Reports for their families in a more aesthetically meaningful way, opposed to just writing *"Mary did Arts and Crafts..."*

Materiality, one of our emergent Design Intentions (5.4.1.1), served artefacts in a number of ways. There was a shared perception that industrially designed and manufactured artefacts lent a validity to Creative Ageing workshops.

I considered with Equal Arts staff the option for a *kit-of-parts* approach to the design of tools for the cases. For example, for the textured blocks, we discussed options for how they could be finalised by Artists, versus Artists being provided with solid, cast,

sets of texture blocks. Equal Arts reported a desire for such objects included in the cases to be *'of a certain quality'* referring to a careful, deliberate materiality that was seen as somehow *'properly designed'* and therefore had the potential to elevate the perception of Creative Ageing activities.

This refined aesthetic also lent the tools a degree of intrigue as objects, as Alice reflected:

> *"The theatre of opening the box with a group inspire[s] intrigue and interest. The box itself is wonderful, a box of tricks!"*

Poppy also reported that the aesthetic approach informed the materiality of their own practice:

> *"I thought the box and the containers, folders and image frames were considered and aesthetically pleasing. It was a prompt for me to consider, develop and improve the visual resources and presentation of materials in my sessions"*

These insights reinforce calls for careful consideration of the materiality in Care Homes (Treadaway et al. 2016) and illustrate the generative (Gaver 2012) role that RtD can play in reflecting and informing behaviours in the context of Care.

5.5.1 Methodological Insights

Ethics and Consent in Care Settings

The process of Research Ethics is rigorous and comprehensive in any study, and especially those involving People with Dementia. However, in the case of gathering visual data, I reflected during data gathering that the work invested in the administrative and contractual processes addressing Ethics for this study did substantially add value for Residents involved or contribute insight beyond fieldnotes.

Though I was able to gain some valuable photographs of prototypes being tested, I did not find they added to my insight during Creative Ageing workshops, indeed they sometimes took a lot of time with Residents away from the main activity of Creative Ageing workshops and had the effect of myself and Residents unfortunately losing time to engage in the creative activities themselves.

Furthermore, I had not appreciated how invasive a DSLR camera (a novel artefact in Care Settings) would feel, as a presence in Creative Ageing workshops. Despite my careful consideration of the material environment through my research, I had neglected to anticipate the effect that a clacking, flashing camera with a prominent lens would have on those Residents in workshops, most especially those who were not able to consent to having their photo taken. This resulted in feelings of exclusion that I did not intend to endorse and ended with me choosing to put the camera away, instead opting to just carry on with Participant Observation and taking fieldnotes immediately after prototype developments using a lighter touch - rather than over-documenting workshops.

This feeling was contrasted by what I see as a methodological innovation in documenting the Shipley Workshop for this study. In this case, the cameras had a different effect; they didn't invade the social space but created a feeling of being listened to and appreciated due to the different context that the participants were in.

Value of situated Design work

Furthermore, Participatory Artists reported feeling supported and validated through their inclusion in the co-creation and testing of designed artefacts during this study,

> *'As Creative Facilitators, our attention is usually focussed upon organising and supporting the creativity of other people. Poppy and I both agreed it was lovely for us to not facilitate a workshop but to participate and play. We were both thoroughly engaged in the moment! Having this experience was beneficial in a number of ways; reminds us of our creativity and why we do this, helps to retain Empathy for participants and think about what would be useful as an older person to engage in creativity.'*

The format of workshops like the one held at Shipley Gallery (5.4.2) served as a site of knowledge exchange for Artists, who would usually work in isolation as self-employed practitioners, as Betty noted:

> *'Having had the opportunity to get together like that, and talk about things and explore things, I thought that was fantastic.'*

‘I left the workshop with a feeling of validation; being invited to attend and being recognised as professionals with particular skills was great! As a freelance Artist this tends to not happen.’

I feel that the video documentation, and subsequent video analysis of the Participatory Making Workshop added value, by enabling a focus on the unfolding activity, moment by moment. The mixing and layering of media[18] and annotations[19] on a timeline resulted in a rich representation of the workshop activities and facilitated a sustained analytic engagement with the raw visual and sensory data, for understanding the value of situated Design work. Using the workshop itself as a canvas for a visual response sparked Design thinking and prompted reflective discussion from research participants during follow-up interviews.

18 This method is detailed and examplified in a dedicates appendix (9.5).

19 Examples of animated annotations and responses are included in the appendixes of this thesis with a video edit of selected excerpts (9.6).

5.6 Summary of Insights

This study aimed ‘to explore the methodological alignment of Product Design practice with Creative Ageing in Care Homes’ to meet three objectives. One objective was to support and scaffold Creative Ageing practitioners through designed artefacts. Artefacts created collaboratively through this study illustrate ways in which my practice as a Product Designer helped leverage value, generate support, and advocate for Creative Ageing practice. A second objective was to scaffold creative and aesthetic expression by People with Dementia through designed artefacts. This study contributes new insights related to how creative engagement may promote greater autonomy and self-expression for People with Dementia with designed artefacts and add to the growing literature on how to conduct sensitive and contextually responsive Design-led Research in Care Settings.

A third objective was to explore modes of sensory interaction through the material language of Design. Novel, exploratory, open-ended artefacts allowed Arts practitioners ways of including creative sensory practice into Creative Ageing workshops with an aesthetically considered Design language. Careful consideration was given to the development of these sensory artefacts in relation to transferable Design Intentions, Imagination, Materiality, Agency, and Legacy.

In the final empirical study of this project, I explore thoughtful means by which People with Dementia can engage in the creation of individualised design outcomes with the aim to allow Care Home Residents to individualise elements of the material environment.

vi. Scratching

I started parametric programming in CAD over a decade ago, captured by its potential for infinites and itching to explore them. I love digital design techniques, and teaching others about them but they hold so many barriers to entry; computers are horrible, commands are hard to memorise, code is fiddly, and 3D spaces are terribly represented through screens - parametric methods promised a lot to democratise these infinities.

From my first parametric projects I wanted to move out of the computer, making machines which stretched and deformed textiles, and exploring tangible interfaces in furniture. I sought meaningful case studies for the approach, working with musicians to design customised components and using speculative methods to visualise parametric futures before using parametric modelling in industrial and architectural projects, where it is most common.

As yet, none of these projects has satisfied the curiosity which arose 10 years ago. The itch persists.

6.0 Cups, Pots, and Lamps: Co-Creative Design Activities for Care Home Residents to individualise elements of the Material Environment

In this chapter I present my third empirical study through which I explored how Parametricism may be used to involve People with Dementia in Creative Ageing activities. I developed co-creative activities for this study that enabled People with Dementia to design products in three categories: Cups, Pots, and Lamps.

The three concept categories were developed using a method built upon the Computational Concept Canvas (CCC) (Malakuczi 2019), with the additional critical consideration of each activity's relationship to Embodiment, Materiality, and Creative Context. This design process (6.1) was intended to explore how the development of Parametricism, the approach outlined in my Methodology chapter (3.2.3), could inform Design for Creative Ageing practices.

Product categories and interactions were given particular consideration informed by my Ethnographic research. I present the design development of the three activities as material Product Design artefacts (6.2).

I then present findings from semi-structured interviews conducted with three expert Creative Aging practitioners. Remote video interviews were recorded and analysed, contributing insight into the roles that Design can play within the creative context of Care Homes.

6.1 Design Research Approach

This study presents the design and evaluation of co-creative design activities by which People with Dementia can meaningfully individualise mundane elements of the designed environment in Care Homes. I developed co-creative activities to invite People with Dementia to participate in the design of products in three categories: Cups, Pots, and Lamps.

This study builds upon learning generated in the previous two studies: (1) Ethnographic insights from Pearson Green about the practice and impact of Creative Ageing, and the ways it can inform Product Design practice; and (2) insights from my previous study into the Embodied, sensory, and material ways that Product Design practice can support and scaffold Creative Ageing.

Activities were developed through a *critical* engagement with extant parametric methods and techniques, principally by the addition of distinct stages of concept development to Malakuczi's Computational Concept Canvas (Malakuczi 2019), which I introduced in the Contextual Review of this thesis (2.3). These additional stages were informed by the Design Intentions co-created with Equal Arts from my previous study (5.4.1.1); Imagination, Materiality, Agency, and Legacy – with the aim of informing the development of thoughtful means

by which People with Dementia could engage in the creation of individualised design outcomes. This critical engagement contributes toward the potential development of Parametricism as a distinct Design methodology, which I reflect upon in the Discussion of this thesis (7.3).

This study is positioned to interrogate two key gaps in the literature. Firstly, the call within Design for Dementia literature for greater degrees of individualisation and participation for People with Dementia in the designed environment, while acknowledging that *'alternatives are also needed to the one-on-one approaches, often used in the development of highly personalized outcomes'* (Kenning 2018, 2). Secondly, the study addresses a gap identified within Parametric Design literature, presented in the Contextual Review of this thesis (2.3), which represents a lack of consideration towards (i) Embodied interactions, (ii) the creative context of those interactions and (iii) the materiality of interactions in the development of parametrically designed products.

Motivated by these aims, this study was designed to address the following research question:

> **What insights can we gather through greater consideration of Embodiment, Creative Context, and Materiality in service of Parametricism for the context of Product Design in developing co-creative Creative Ageing activities?**

6.1.1 Research through Design and Parametricism

Research through Design (RtD) methods employed in this study, informed by the methodology outlined earlier in this thesis (3.2.2), allowed me to develop practice-led inquiry through making, iterative prototyping, stakeholder engagement, and visual, qualitative analysis. This informed the development of Parametricism as an RtD approach, as well as identifying strategic design opportunities in Design for Dementia.

Exploring Parametricism across a number of case-studies has emerged as centrally significant to this inquiry. Through RtD practice, I have critically examined the potential of Parametricism as an approach across different applications, producing tangible examples representative of its core concepts. Contrary to established parametric methods and techniques (Malakuczi 2019), the concepts developed in this study were focussed on: 1. Embodied, spatial interactions, 2. Creative Context around those interactions, and 3. Material, Sensory, and Aesthetic qualities of those interactions. By adopting a co-creative, experience-centred and generative approach, I was able to foreground and celebrate the ‘moment of making’, rather than any generated outcome, hence why the parametric concepts explored in this third study were presented as activities, rather than products.

6.1.2 Development of a Novel Parametric Framework

Malakuczi proposes creative expression as one of the main benefits of Computational Design, asking *'How would it be possible to offer users a more active and creative role in the definition of their artefacts?'* (Malakuczi 2019, 20). However, this question remains under-explored in extant work in the field, which has a strong focus on finished artefacts, and typically involves the exclusively digital ecosystem presented in the Contextual Review of this thesis (2.3). The strictures of extant digital-only workflows, in combination with the call for new approaches to deliver increased individualisation by People with Dementia in designed elements of their environment (Kenning 2018), present a valuable design opportunity to explore flexible design activities informed by the exploratory materiality, Embodiment, and creative freedom of Creative Ageing practice.

Aiming to address this gap, I focussed on the physical and sensorial nature of designed interactions as I developed concepts for this study. In so doing I have added what could be seen as a distinct *module* into Malakuczi's 'Computational Concept Canvas' framework (Malakuczi 2019), which I outlined in the Contextual Review of this thesis (2.3) (Figure 29).

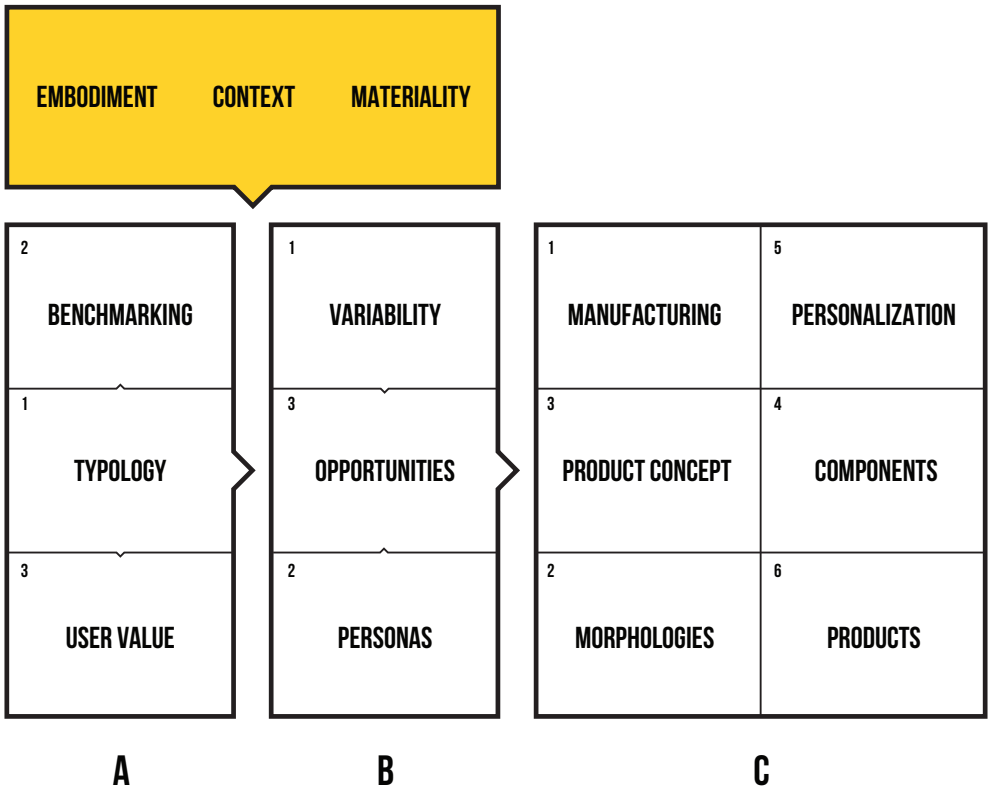


Figure 29. Embodiment Materiality Context Credit: The Author

Simplified version of Malakuczi's Computational Concept Canvas tool in three modules, A, B, C - with the addition of a further module on Interaction, highlighted in yellow.

Though I have positioned this *module* as taking place between Malakuczi's *A* and *B* modules in the concept-development diagram above (Figure 29), this is something of an oversimplification. The consideration of; Embodied Action, Creative Context, and Materiality of Interaction, could well take place before a product category, or typology, is chosen or indeed before deciding which elements of a given design can be varied through the process of individualisation. Likewise, this design development could be applied retrospectively to an already refined Computational Design concept in an effort to encourage more meaningful, creative, and considered interactions.

I chose Cups, Plant Pots, and Lamps as relevant product categories for this study. Product categories for consideration were inspired primarily by my Ethnographic research at Pearson Green (4.0); the products were either central to social interactions, such as tea-drinking, or products whose absence was notable in a domestic setting, such as Table Lamps.

With the intention of both creating satisfying interactions for each activity and exploring a range of interactions within the scope of this study, I sought to align the categories with appropriate Embodied interactions following an initial sketch exploration of each[20]. In doing this, I deliberately made distinctions between the possible levels of individualisation and materiality of the three activities. This was a conscious choice to allow a range of activities and outcomes to be scrutinised in the interviews that were conducted as part of this study, which I present later in this chapter (6.3).

Regarding the number of possible outcomes from each activity, to explore levels of individualisation; I chose to have the fewest possible Cups, followed by Pots, then Lamps. This resulted in a variation in the number of possible distinct outcomes as such: dozens of Cups, hundreds of Pots, thousands of Lamps.

Likewise, regarding the materiality of each activity, I approached each design with a distinct material language, explored in further detail in the next section (6.2).

20 My Design development and making process is documented in the photo-book accompanying this thesis as an appendix (9.1.4)









Images (clockwise, from top left)

Figure 30. Ceramic Selectoin Credit: Sam Baron

Figure 31. Dombo Mug Credit: Richard Hutton

Figure 32. Tea Set Credit: Jung

Figure 33. UNITEA Credit: Fionn Tynan O'Mahony

Figure 34. Style B Credit: Creative Designs

Figure 35. Ting Credit: Bridgette Chan













Figure 36. Paper and Card Cups Credit: The Author

6.2 Designed Co-Creative Activities

6.2.1 Cups

Cups: representing mugs, teacups, and coffee cups, were selected due to the importance and frequency of tea breaks at Pearson Green (4.2.3.1). The ritual, ceremony, and cultural significance of tea-drinking has been explored through interaction in Care Homes in extant Design work (Dykes, Wallace, and Regan 2013), as well as being the subject of study in relation to tackling dehydration in UK Care Home Residents through creative, Person-Centred methods such as themed events and taster drink sessions (Cook et al. 2019). The cups that I encountered on every visit to Pearson Green had, I felt, an unsatisfying plastic quality (4.2.3.1), and so the category of Cups offered a conceptual space for examining a mundane artefact with an aesthetic of luxury.

My intention was for the Cups in this activity to be represented as figuratively as possible, with a simple mechanism allowing handles to be swapped between all of the available options. This spatial, figurative, representation was inspired by the success of the leaf-tracing workshop which took place at Pearson Green described earlier in this thesis, wherein a one-to-one representation of the subject, a leaf, was achieved in Residents' created artworks and the activity resulted in a notably high-uptake, high inclusivity, and a broad range of outcomes from Residents (4.2.3.1).

After sketching, I created paper and card prototypes (Figure 30) to explore and refine the forms of the cup designs – trying to strike a balance between geometric harmony and variability between all



Figure 37. Cup and Handle Prototypes Credit: The Author

of the possible cup-handle combinations. I settled upon eight cup bodies and eight cup handles, giving 64 possible combinations.

I chose materials for this activity in order to reflect what is deemed special about having a cup of tea. A wooden case would house all of the prototypes in individual sections, suggesting a tea-tray, something to be shared and talked over. Brass trim would give the tray a more luxurious finish, suggesting the grown-up nature of cups of tea. I noted an absence of brass in Care Home environments throughout my research, despite its historical application in both domestic and clinical settings on objects to invite touching (Doorknobs, Handles, Taps, Handrails etc.). My intention was for the cups and handles to be manufactured from porcelain, due to its connotations with fine china, its sensory quality, its strength, and food-safety. However, as the making of all of the artefacts in this study was limited by what I could manufacture from home, due to Covid-19 pandemic restrictions, I chose to cast the Cups and Handles from Jesmonite. This is a glass-fibre composite material which is cool to the touch, food safe when sealed, and can be dyed any colour, in this case white – to suggest porcelain.

Cup and Handle prototypes were developed iteratively, and manufactured by 3D printing in PLA, and the creation of silicone moulds taken from the prints where needed, before being cast in Jesmonite and hand-finishing (Figure 31).

I chose to use small magnets to enable the handles to be swapped out. Pairs of magnets were set into each prototype in the correct



Figure 38. Cups Activity Credit: The Author

orientation such that swapping was a satisfying and intuitive process. This required the addition of a reinforcing section within each Jesmonite cast to accommodate the magnets. I also Embedded matching magnets into the base of the tray, so that each handle would be held safely in its section when not in use (Figure 32).







Images (clockwise, from top left, centre last

Figure 39. Level Head Credit: Tony Cragg

Figure 40. Geometric Credit: Bridgette Chan

Figure 41. Le Morandine Credit: Sonia Pedrazzini

Figure 42. Point of View Credit: Tony Cragg

Figure 43. Hollow Head Credit: Tony Cragg

Figure 44. Savoy Vase Credit: Alvar Aalto

Figure 45. Ovo Credit Idee e Manufatti

Figure 46. Adam and Eve Credit: Greg Pace















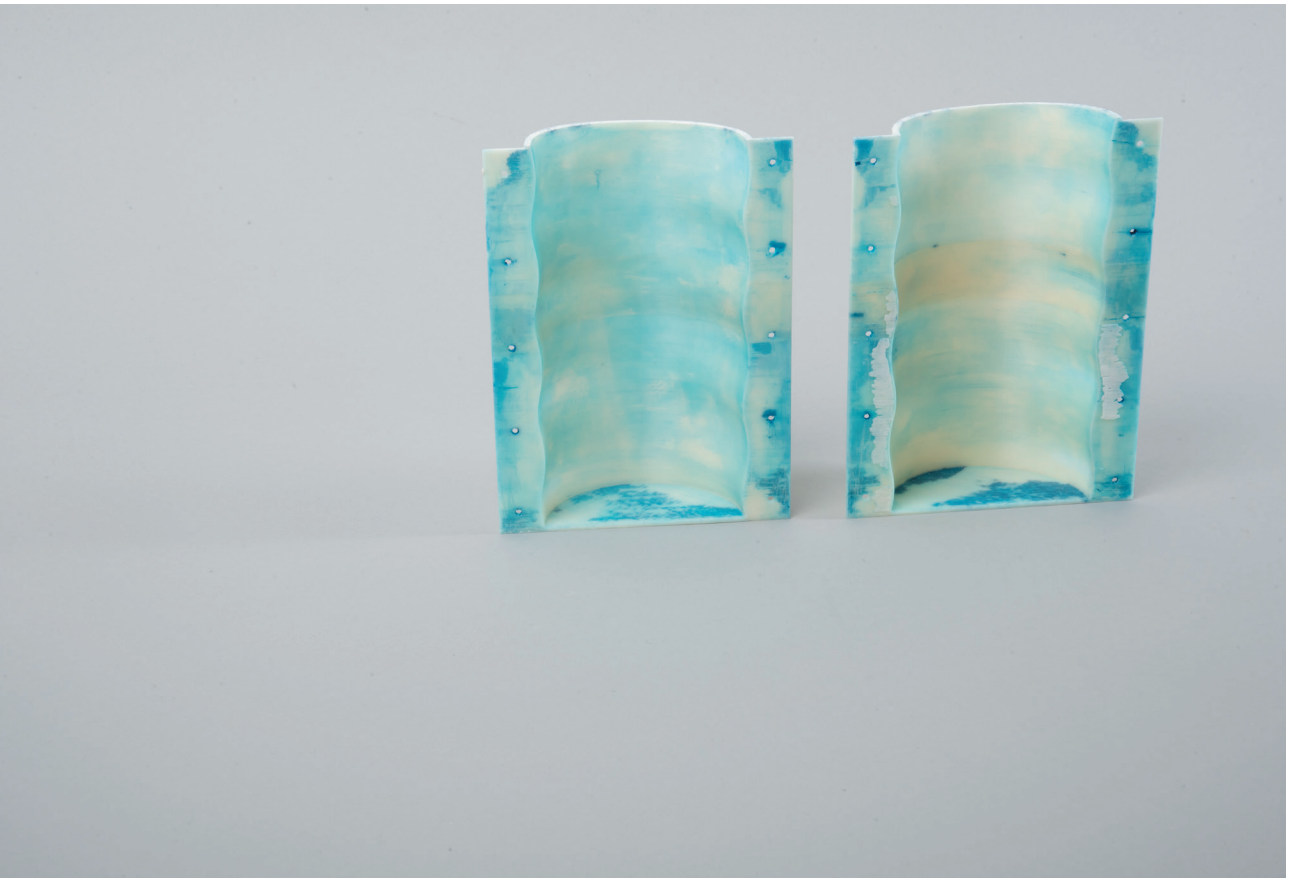


Figure 47. Pots Activity Credit: The Author

6.2.2 Pots

The Pots category, representing containers for plants, pots and vases, was chosen for the potential breadth of products it could represent, in a huge range of possible shapes and sizes. Through this category, I also intended to encourage more plants and flowers into Care Homes because, in my experience, they were a notable absence from such a domestic environment.

I chose to use shapes cut from paper for this activity, inspired by a captivating conversation that I held with Residents at Pearson Green about the composition of flat shapes in relation to one another (4.2.2.3).

I created simple geometric paper shapes which could be combined together to form the outline of a pot, or vase, in section. This activity was, in technical terms, highly accessible and straightforward for implementation. To add visual contrast to the activity in the initial testing phase, I added a simple lightbox to the activity, leaving the representation of each users' pot as a glowing shape in the middle of the pieces of paper (Figure 33).

I tested early prototypes with physical plant leaves and cut flowers (Figure 35) – which is how I would intend to carry out the activity with Residents in a Care Setting. When I first tested the activity during a pilot interview, I included no imagery or representation of plants at all. However, when the pilot was conducted remotely over videoconference, I found that forming the designs was too open-ended a process for the participant, so I amended it by including



Figure 48. Pots Activity with Plants Credit: The Author

printed-out images of plants at scale. (Figure 34)

Settling on a 2D image to fit in with the paper-set I firstly tried creating illustrations of various houseplants before deciding they may not be figurative enough to help focus the activity on making a pot, rather than critiquing the drawings. As a result, I used manipulated photographs of houseplants to give an indication of scale which users could opt to use.



Figure 49. Testing Pots paper shapes. Credit: The Author













Images Above (clockwise, from top left)

Figure 50. ‘Flowerpot v’ Credit: Verner Panton

Figure 51. ‘Chata Lamp’ Credit: Goula

Figure 52. ‘Chimney’ Credit: Benjamin Hubert

Figure 53. Table Lamp Credit: Poul Henningsen

Figure 54. ‘Stack Lamp’ Credit: Mike Warren

Figure 55. ‘Pantop Portable Light’ Credit: Verner Panton

Images Right (clockwise, from bottom right)

Figure 56. ‘TOTO The Toy Totem’ Credit: Rock & Pebble

Figure 58. ‘Chata Lamp’ Credit: Goula

Figure 59. ‘Chimney’ Credit: Benjamin Hubert

Figure 57. Table Lamp Credit: Poul Henningsen











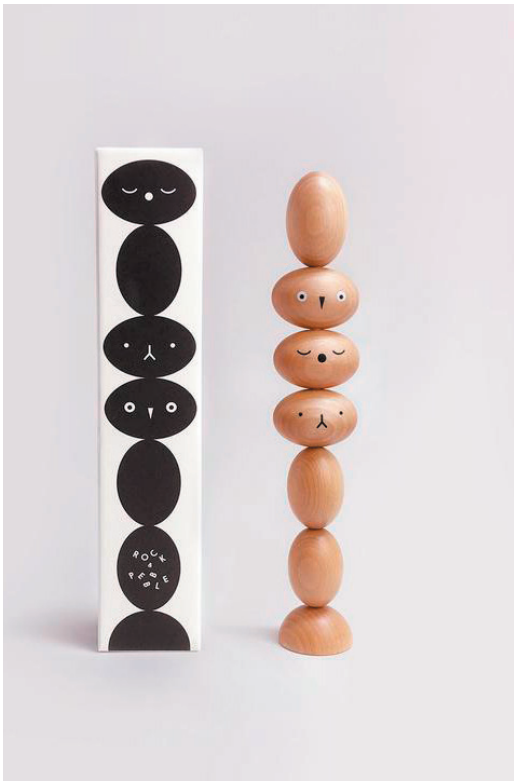




Figure 60. Lamps Activity Credit: The Author



Figure 61. Early computational testing Credit: The Author

6.2.3 Lamps

The most open-ended of the activities, with the greatest number of possible outcomes, users can design the form of a table lamp by building-up wooden disks of various diameters on a central stand. Similar to the Pots, I chose Lamps as a product category due to their apparent omission from communal spaces in Care Homes.

I chose to use pale wood exclusively for this activity, a mixture of birch and poplar, in response to the positive reception of these materials in my previous study (5.0). This gave me to opportunity to sand and wax the objects to a satisfying finish, in the hope of inviting sensory exploration and encouraging playful interactions. This also gave the activity a coherent design vocabulary (Figure 36).

Initially, I tested potential combinations of shapes and sizes with a computational model (Figure 37) created using xpresso (a node-based python coding language). This model allowed me to configure possible combinations of; number of different disk sizes, size increments, disk thickness, and stand height. I chose to use digital prototyping in this case due to the high quantity of material needed for each possible prototype. I settled upon disks cut from three-millimetre plywood, in 12 sizes – ranging from 40 to 150 millimetres in diameter.

Disks were laser-cut from Poplar plywood, and I assembled the remaining pieces from birch, taking care to edge-band and mitre plywood joints (Figure 38), such that the finished objects invited touching and stroking.



Figure 62. Lamps Activity Materials Credit: The Author

6.3 Remote Interviews

Following the development of concepts into working prototypes of co-creative Design activities, I conducted remote stakeholder interviews to evaluate the potential application of such activities in the context of Care. Due to the restrictions put in place by UK Government in response to the Covid-19 pandemic, I was unable to conduct research alongside People with Dementia themselves. I detail how I responded to these circumstances in the study design and their potential impact below (6.3.1).

I chose to recruit three expert stakeholders highly experienced in Creative Ageing practice to evaluate the developed co-creative Design activities through remote, semi-structured interviews. Prototypes for each activity were delivered to participants ahead of each interview, who were then guided through the three activities during an hour-long interview. Each participant designed a Cup, Pot, and Lamp, and gave feedback on their impression of each activity in the context of Creative Ageing. These video interviews were recorded for analysis (6.4).

6.3.1 Ethics and Data Collection during a Pandemic

During the Covid-19 pandemic, which occurred during the final year of my PhD, Northumbria University was required to formally pause all in-person research conduct and all research with potentially vulnerable populations. The Care Settings I had initially hoped to work with for this study were experiencing a time of crisis due to the

pandemic, and it would have been unethical to try to conduct data collection in Creative Ageing workshops with Care Home Residents as I initially planned.

I therefore conducted the interviews remotely. I invited two Creative Ageing Artists who had been involved in my previous two studies, Betty Hill and Poppy Crawshaw, to participate in the study as well as Equal Arts director of 25 years, Alice Thwaite. To reiterate, each of these participants chose to have their real names presented in this thesis and any relevant publications. These stakeholders' expert skills and knowledge, about the activities themselves in relation to their professional experience, as well as how they may be facilitated in a broader creative context situated in their own individual Arts practices in Care Settings. Each participant had a deep understanding of the nature of Residential Care Settings, the design of those environments, and the role of Arts and Design in shaping or disrupting them. Having each been present through my previous two studies, these Creative Ageing practitioners understood the ways in which different activities might support more or less autonomy, agency, or authorial voice by the People with Dementia with whom they work alongside.

6.3.2 Participant Interviews

Working responsively with the challenge of conducting co-creative activities remotely, I delivered prototype kits to each participant for them to interact with as part of the remote interview schedule.

After each participant provided their informed consent to participate,

I started video-recording the session, and invited them to get the objects to-hand whilst I explained what the activities at interview would involve.

As I was collecting data about the participants' professional experiences of working alongside People with Dementia, but not from People with Dementia themselves, any utterance of identifiable information about Care Home Residents or others was removed from the data afterwards in processing, and was replaced with a chosen pseudonym where appropriate. Ethical approval was granted by Northumbria University[21] following an independent peer review of the protocol.

My intention was to keep the semi-structured, hour-long interviews which all followed the same schedule[22] as informal in possible, focusing on the lucid qualities of engaging in the activities themselves and talking about them. The participants were invited to choose which order they would like to do the activities in, and I chatted with each participant throughout, asking them open questions related to each activity as they worked; firstly about their personal relationship to the product category, and then about their interpretation of those products in the Care Home. During the Pots activity, for example, I asked *'How do you feel about house plants?'*, then '*What do you think about plants and plant pots in Care Homes?'*, letting each participant guide the discussion until they felt they were finished. I tried not to rush each participant as they creatively engaged, allowing each to finish in their own time before documenting their resultant

21 Northumbria University Ethics Submission Ref: 28654.

22 Interview Schedule included with the appendices of this thesis (9.6)

design in a photo that they shared with me. Upon their completion of each activity, I asked each participant to reflect about the activity in three regards: 1. the physical interaction of the activity, 2. the amount of creative freedom they had during the activity, and 3. the materiality of the activity.

The photographs were then used to specify the finished designed outcomes from each activity, the process of which is documented in the Photo-book accompanying this thesis as an appendix (9.1.4). Below are some example photos and resulting artefacts:



Figure 63. Poppy's Cup Design Credit: Poppy Crawshaw



Figure 64. Poppy's Cup Credit: The Author



Figure 65. Alice's Pot Design Credit: Alice Thwaite



Figure 66. Alice's Pot Credit: The Author



Figure 67. Betty's Cup Design Credit: Betty Hill



Figure 68. Betty's Cup Credit: The Author



Figure 69. Poppy's Pot Design Credit: Poppy Crawshaw



Figure 70. Poppy's Pot Credit: The Author

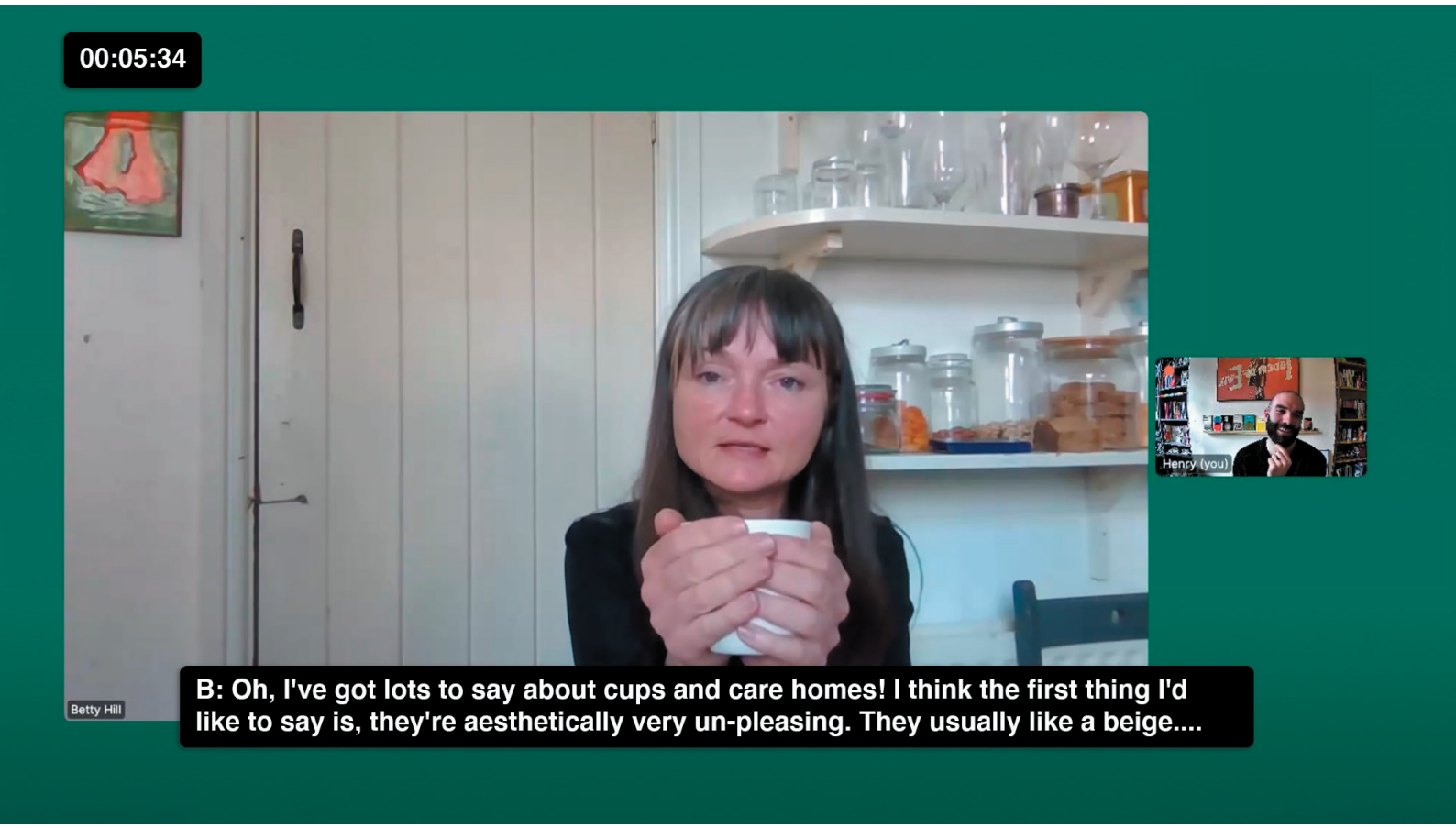


Figure 71. Interview Screenshot.Credit: The Author

6.4 Analysis

Similar to my previous study (5.2.3), the qualitative analytic method for this study based on Thematic Analysis (Braun, Clarke, and Gray 2017b; Braun and Clarke 2006), was adapted for an engagement with video media.

Video, audio, and photographic data were captured simultaneously during each interview. Online videoconferencing made recording the interviews very simple and avoided the need to introduce novel electronic devices such as cameras and voice-recorders into participants' homes for the occasion. Participants were asked to document the artefacts they created though photographs taken on their personal smartphones; these were shared with me following each interview to be incorporated into the data set.

Recorded interview data were combined onto a video timeline and the audio was transcribed into closed-caption files after removing identifiable or sensitive data. This method, as in the previous study, resulted in full length video files that incorporated audio, visual, and textual data into one file for review, reflection, and analysis (Figure 47).

I printed hard copies of the transcripts and conducted three systematic rounds of coding. Initially, I re-watched each interview recording and highlighted areas of interest with brief notes. Secondly, I watched the interviews again while sorting codes into common themes. I then arranged the initial themes into codebooks[23], each of

23 A Codebook extract from this study is included as an appendixes (9.7)

which were also printed out for refinement, naming the themes, and writing-up into the report presented in the discussion section of this chapter (6.5.1).

6.5 Findings

The systematic coding of interview data using the novel method described above, generated the following thematic insights.

6.5.1 Aesthetic Perception

The materiality of each activity was commended, with Artists remarking on how an inclusive sensory approach allowed for each object introduced to intrigue and satisfy through intuitive exploration. For the participants this meant the material palette and finish have to be appropriate to the environment of Creative Ageing, whilst inviting exploration across sensory modes. Betty illustrated how a Resident may choose to sit and stroke the smooth wooden disks included in the Lamps activity:

> *'Because you might have someone who spends all the time just sitting here feeling this... You know… Great!'*

The materiality of activities, especially the refined finish of the Cups activity, sat in contrast to participants' perception of their existing counterpart products in Care Homes, which were on the whole seen as functionally and aesthetically displeasing. As participants thought about the aesthetic possibility of each product, the development of objects through craft activities was discussed, to both increase involvement in the creation of objects, and to prologue engagement with activities. For example, all the Artists discussed bringing the porcelain cups back into the Care Home when bisk hardened[24] to

24 The first stage of firing porcelain, following the slip-casting of forms, where a glaze would be applied before a final firing.

hold a workshop, glazing the cups before their final firing – giving Residents the opportunity to be more involved in the finished look and feel of their product, and also to witness the novel alchemy of glazing ceramics. Additions like this to the process of co-creation further challenge the prevalent model of parametric methods, where products would be digitally produced remotely and delivered to users.

The physical representation of the Cups invited multi-sensory exploration, feeling the texture of the material, exploring the form and the finish with hands, and holding them up against the mouth to see how they may function and feel to use. Presentation within the tea tray caused a feeling of excitement, anticipation, and theatre. Also, the materiality, especially the use of brass, helped position the objects as luxurious, fun, and grown-up. Betty remarked:

> *'…The brass here it's shiny and it's enticing and it's… it evokes that kind of tea, tea trolleys and exciting things like your supper coming on in on a tray, and toast, lovely!'*

The wooden disks of the Lamps were seen as particularly pleasing by participants as a gestural, Embodied activity. The activity was deemed highly engaging and flexible and had the potential to be revisited multiple times due to the high degree of individualisation possible. The physical-spatial nature of the activity, as well as its scalar representation were seen as highly engaging, and intuitive. The shape and material of the pieces invited sensory exploration, stroking and fiddling, while the range of sizes were said to potentially fit well into different sized hands for fiddling and stealing – an

action of rebellious creative expression and cherishing artefacts I encountered in my previous studies (5.4.3).

Indecision and spontaneity were each raised, as Artists felt their way through the activities. During the Lamps activity, the slot cut out of the wooden disks, as opposed to a hole, afforded people to change their minds *'in the moment'*, and encouraged ongoing development, rather that abandoning a design halfway through when faced with the challenge of lifting off a large section to start again. Rule-breaking was also afforded by going 'beyond the stick'; as Betty built her lamp, her intended form took precedence over the intended limitations on size.

6.5.2 Products and Power

Artists linked the aesthetic experience of serving Residents with bland, conventional, mass-produced products as symptomatic of a homogenised and predictable designed environment.

> *'You know sometimes… in a nice trendy cafe and you feel almost like it feels like a treat… I feel like the experience in the Care Homes is like, the opposite of that.' Poppy*
> *'The lighting is always very central and institutional. I think it's one of the things that makes it feel not like a home' Alice*

Alice recounted the difference a small Cup can make to the environment of Care, in her experience.

> *'I was thinking about that [visiting a Care Home recently]*

because [a Resident's wife] takes fresh flowers from the garden in, and instead of putting it in a vase from the home, she brought it in in a beautiful very much [their] taste blue cup. And so, these beautiful yellow primroses sat in this tiny blue cup.
It's about that big…
It's just... That just felt like this is part of him, you know?
He can see that it's on his... It's on his little table.
So that made me happy.'

Likewise, plant pots and table lamps represented product categories noted as absent from Care Homes. Artists felt that lamps and plants alike were central to their own home environments, creating relaxing ambiance, giving a link to nature, and the opportunity to give Care. These products were noted as missing from Care Homes for clinical, health and safety, or cost reasons, as Betty explained:

'Well, you know, in your own experience from some of the Care Homes where actually a lot of it is for show and governed by the manager, unfortunately, or by ideas that the Care Home companies have about what people want, what people need, which isn't necessarily informed, I don't feel, unfortunately.'

Poppy also elaborated on this:

'They're not frequent enough that when I see lamps in Care Homes, it's like a sigh of relief! …The mood change, when there's a lamp, is just huge. I just find the environment's, so

much more relaxing than when you've not got that big blaring light in your face. I wish they would do more about lighting in Care Homes...

That's so problematic! …What does that say? It's like, Oh, we're er... We need a relaxing lamp but you lot... you don't.' Poppy

We discussed the product life of co-designed artefacts, with Artists speculating about the value of artefacts to not only represent each individual, but also to scaffold ongoing conversations within People with Dementia's circles of Care – with the potential to challenge stereotypes and move away from a prevalent focus on reminiscence. Artists found that it was often hard to communicate the contribution of Residents in creative workshops to their family members without sounding disingenuous. Poppy suggested that physical material outcomes can help to reinforce those moments.

'It's really interesting, isn't it? Like, when you're describing the contribution, of a Resident, it's like, you get the feeling that they (Residents' family members) think you're bigging up what they've (a resident) done just to be nice, rather than you're actually being quite genuine about them their input…

So, families are used to them (Residents) repeating stories or forgetting a story halfway through. And then you're saying, "Oh, we wrote this massive, this amazing story, it was so good!" And it's just like, you can never quite describe that feeling.'

'I think it would be gorgeous if it were to be ownership over the

space… Often there's like a design theme that runs throughout and it's not very personal. So, I think having an object that you've designed in your space, it just personalises it, but it gives it a talking point as well. I think a lot of relatives find it really challenging when people when their family member has Dementia. So, I think artwork and design things like that give people opportunity to like, chat about something that isn't; "Oh, do you remember this?"'

Poppy's reflection on the potential for co-created artefacts to scaffold conversations within Residents' broader circles of Care speaks to the Design Intention, Legacy, introduced in the previous study (5.4.1.1.). This also spoke back to my own experiences at Pearson Green, for example in failing to communicate the importance of Fred's creative input on our project to his son (4.2.3.3).

Alice, who has been involved in each study of my doctoral work, reflected on how the intention to bring aesthetic beauty was one thing, but to have beautiful aesthetic artefacts in the Care Home designed by People with Dementia gave the proposed interventions two different lives, as objects and as acts of creativity.

'(Y)et your whole thing at the beginning, when you came to me, I remember thinking it's so refreshing to hear somebody who wants to design something that is very different aesthetically, from what you normally get, in terms of institutions for People with Dementia, you know…
I remember that conversation and thinking, yes, we do need

those things. But the fact that they're now the idea of being designed by People with Dementia is, yeah, two different lives really.

6.5.3 Embodiment

The simple, figurative interaction of the Cups marrying-up with handles was noted as universally satisfying by all participants, especially with the cold click as the magnets snapped the cup handles into place. I never had to explain this action, or the mechanism by which it worked, during the activities. However, though Betty spent time exploring each object; holding each cup while considering how they felt in the hand before starting to experiment carefully with combinations of handles, it was also possible to see the cups and handles as a task to be completed, simply pairing each cup-body with a suitable handle and seeing the activity 'finished', like a jigsaw puzzle, this accounted for a broad range in how quickly each participant finished their own Cup design, with Betty taking around 15 minutes, and Alice picking her cup in moments, saying:

'I just think that is just this is my favorite cone. Oh, that's quick. …Right. That's it. Done!'

Though each activity was seen as a promising, the Pots interactions – arranging paper cut-outs to form the negative space around a plant pot – were seen as somewhat too abstract. Despite being satisfying from a material point of view and bolstered by the charm of the LED lightbox, the Artists found it hard to grasp to concept of what was expected at first. This did, however, result in a satisfying *eureka*

moment from each as their Pot snapped into focus. Beyond the increased visual contrast afforded by the LED lightbox, its simplicity was another source of enjoyment during the activity, with Poppy suggesting that it gave a sense of depth to the Pot being designed, despite it being a flat (two-dimensional) interaction with the pieces of paper.

The Lamps activity was deemed to have the greatest potential for long-term engagement, with the possibility of revisiting it on multiple occasions due to its number or possible outcomes and the simplicity of the interaction. Poppy said:

> *'The Cups, in a workshop, unless you paired something, um, storytelling or whatever, then that is an activity on its own is over a lot quicker than this one, which you could just keep fiddling with…'*

Betty described the Lamps, in particular, as a fun, *'failure-free activity'*, with a low barrier to entry in terms of needed skill paired with a deeper potential for exploration and refinement over time.

> *'I do like a bit of that, a bit of failure-free activity, because quite often people come into sessions, "Ee, well I cannit do that pet!" and actually having something that is achievable, I think, but engaging and challenging is important. It's quite tricky to get that balance.'*

Artists' sensitivity to activities as Embodied was echoed in their

consideration of Residents' needs in terms of support or guidance to be fully included in creative activities. This understanding acknowledges the complexity and nuance of Residents' ability to be included in Creative Ageing as both an aesthetic and ethical consideration. Speculation about different hypothetical Resident's Embodied abilities or disabilities were discussed by Artists, who are experienced in working in Dementia Care Settings. However, primacy was given to the creative aspects of individualisation, rather than any potential medical challenges faced, or benefits offered.

Design considerations such as the risk of artefacts being used as weapons, inclusivity for people living with sensory impairments, people trying to eat artefacts, and the requirements for abstract thought were each raised. However, in each case these concerns can be managed through design considerations and thoughtful facilitation of the activities in Care Homes.

Likewise, activities were suggested as potential solutions to 'problems' from a medicalised perspective, such as the Cups activity being incorporated into creative activities designed to tackle dehydration, a common problem in Care Home populations (Hooper et al. 2014).

6.5.4 Individualisation and Homogenisation

Inviting Care Home Residents to influence elements of the design of objects in their home was seen as a positive change from the norm. However, the curation of experiences and boundaries to the amount of choice was discussed - in terms of providing balance between freedom and each person's capacity to participate.

This tension arose from the presumed nature of Product Design as a discipline, and its inherent necessity for products to exist and function. Participants expressed how a balance can be struck between; 1. The parameters of each given design limiting the possibility of product 'failure', and 2. The facilitation of collaborative Design as a creative activity. As with any other Creative Ageing activity, Residents would be helped and encouraged where needed, and could be freer to explore creatively by the letting go of the need for a manufactured outcome at all, at times. Betty suggested a number of ways in which these activities could be more flexible, by foregoing the stricture of a designed outcome.

> *'Maybe they could be just… even be a little bit more out there, you know? Like, um... But then I suppose and that's probably not might not translate to the actual making of a pot. You know, like, great big ones? You know, just a bit more dramatic!'*

Individualisation types which may be considered separately as ergonomic i.e., the grip of a cup handle, and aesthetic i.e., a patterned surface finish, were perceived in both terms simultaneously by participants. Individualisations in these cases would fall into the two main 'Categories of Personalisations' in Computational Design; Mechanical and Cognitive (Malakuczi 2019, 56–57). However, these changes are linked – as the shape of an object is changed to suit a mechanical need, its aesthetic quality is also changed and *vice versa*.

Though these approaches don't need to be separated by users, the

link between ergonomics and a medicalised Design approach is of note. This is particularly relevant in a Design space where people are often faced with physical, sensory, or cognitive impairments and the accessibility of products can be a social privilege in Care Homes, allowing Residents to either be included in an activity or not. On typical cups in Care Homes, Betty said:

> *'…They're all the same! So, you've got tiny, tiny little women with very small fingers, trying to hold the same cup as, say, somebody who's got a really big hand, or maybe arthritis. There's no kind of, I think the word's differentiation… What I like about having all of these (options), if all of these were available then people could have that choice.'*
> *'I can imagine very well, people who we have known, [a resident] at [a local Residential Care Home] for example, who's got you know, issues with her eyesight would have a wonderful time just feeling all of these... and giving her opinion, on them and what she liked about what she didn't like about them, you know?'*

It was appreciated by all participants that the individualised cups created using the co-creative activity would offer a substantial benefit to these homogeneous products through the introduction of choice, exploration, and greater ownership.

6.5.5 Creative Context

The creative scope of each activity was intentionally varied and there was no clear preference for more or fewer possible outcomes, rather

a preference for which activity itself may be more or less engaging. Again, this challenged my predetermined focus on a viable product outcome, over the activity itself. Betty said:

> *'…The scope for creativity? I think it's huge. It's huge. There's so many possibilities, you know, like, if there's a possibility of closing your eyes like I did and go "Mm…" have a vision in your mind about what you might quite like to do in you know; big, small, is it coming out like this? Is it just tall and thin? Has it got a tulip at the top? Lovely. Or, just playing with it and seeing what happens, you know, and you're just gonna get all those sorts of different kinds of personalities coming out who prefer to do things differently. And then actually, if you don't like what's happening, take it all off and start again. Lovely!'*

Each activity showed the potential to be included into a broader Creative Ageing context to guide or mediate the activities facilitated within a larger body of creative work, especially as Artists became inspired with the creative potential to scaffold workshops.

Poppy and Betty's immediate responses were to build upon the potential for creative expression within each activity as part of a broader creative or cultural context, as illustrated by Poppy who, as a storyteller, said how she would draw on 'having a cup of tea' as the 'departure point' for co-creating a story or visualisation:

> *'That was my first thought when you said that question. I was*

like, I would absolutely use this as all of these, all these cups are on the table.... There's loads of people there, and they're all having a cup of tea together. And based on the cups, we're going to try and work out who we've got, at the coffee shop, or whatever, I would totally, I would totally use that as a starting point.'

Alice suggested that exploring the creative context of an artefact, and then specifying an individualised artefact in that product category could be separate activities.

'So, that (storytelling) process is in itself of value, which could be very different from the end result, in terms of being aesthetically what somebody would want…
There's two very valid ways of doing it, I think, but they aren't necessarily that connected do you know what I mean?
So, you could do the whole activity which is about the story and the creating it, but then you could do another one which was much more about what you like to look at.'

The potential to develop designed artefacts further through craft practices, decoration, and making in the Care Home was also suggested.

'I could see life in this plant pot project. Almost like because you've got that negative space there there's absolutely tons you could do to increase that workshop. I could imagine like, bits of plasticine or bits of string to kind of like, create designs

on that on that white, like that would be really nice to give it some life and you could even like the next session, have the cut-out ready to go and you can have that on cards and be like adding bits on to it. So, seeing how that could be like a really lovely arty crafty add-on to the design.'

Exploration around the Cups was the Artists' response to the potential for the activity to be over too quickly. Conversations could be scaffolded around what people like to drink or swapping stories, real drinks could be incorporated into the activity, once cast then cups could be glazed or decorated as a further workshop – leading to more ongoing engagement.

Poppy suggested building a bespoke environment to support the lamp-making activity, deliberately curating low light levels with soft furnishings and music to transport the activity to an otherworldly setting:

'I think I would maybe set it out where we like, looked at quite a few different types of lamps, and I think I'd have some lamps in the space, rather... if it was a group that involved People with Dementia, so it's like, a constant reminder of kind of what we were working on - to keep that context, kind of, in the space… It would be creating a space that… like had an atmosphere you could even have some music on in the background and just kind of sitting around.

…I think you could maybe create somewhere that felt, quite far away with lamps, you could pick a colour palette, couldn't

you or, or something like that? If you set up that kind of atmosphere, an activity that is as simple as this could feel. It could feel really, like chilled and just sit in this little place doing this little thing, I think adding to an atmosphere around it could just set it up nicely.'

This inspiring insight served to further question the trope of Parametric Design as happening seated at a computer screen; rather, Poppy imagines it as a component to performative, site specific, participatory theatre guided by storytelling.

The insights gained from these interviews and Artists' perception of co-creative activities offer transferable learning for the introduction of co-creative Design into Care Homes as well as for the adoption of parametric methods and techniques.

6.6 Reflections

6.6.1 Parametric Methods and Techniques

Insights from this study indicate ways in which parametric methods and techniques to be employed in co-creating meaningful Product Design interventions alongside People with Dementia, offering an increasingly exploratory and co-creative approach.

At interview, Artists suggested that letting go completely of the idea of a finalised product outcome may indeed be the best choice in a number of cases, framing similar designed interventions as activities rather than products. Given this perspective, any resulting product, as with artworks generated in Creative Ageing workshops, would serve primarily as a record of its having been created, rather than that activity's only goal. Artists remarked on how these resultant artefacts could not only support increased self-expression and authorship from Residents but indicate meaningful shifts in the medicalised Design environment of Care Homes, and scaffold conversations within Residents' circles of Care.

Arguably, a balanced approach is required for co-creative Design activities, supported by the thoughtful application of parametric methods and techniques. Designing 'for all' represents an oversimplification of the flexibility needed in artefacts, foregrounding differences in mechanical terms; ability, anthropometrics, and ergonomics, where differentiation can be achieved through an extremely open-ended approach and thoughtful facilitation, letting the Residents decide, for themselves, what they would like. Participants saw the potential for individualised Design to signify a dynamic shift

in the Care Home and highlighted the opportunities for the activities themselves to elucidate tensions in existing power structures as they are revealed through the designed environment.

As a deliberate methodological development upon established parametric methods, Parametricism was represented by the inclusion of three distinct steps to Malakuczi's CCC framework. Drawing focus, at the concept development stage, onto Embodiment, Creative Context, and Materiality: each theme resulted in positive feedback from participants and encouraged further exploration during interviews.

The three novel examples of activities developed using Parametricism for this study show its potential to inform co-creative methods that scaffold thoughtful moments in the Care Home, with the potential for designed outcomes where appropriate. However, the greater consideration of the creative context and ongoing potential for each activity suggested by participants indicates that these aspects should be included into the future development of similar interventions.

6.6.2 Methodological Insights

Conducting the activities remotely had unplanned benefits, principally by separating the artefacts from myself, allowing participants more ownership and autonomy during activities. Often, I couldn't even see the activity as it was being conducted away from the view of participants' webcams, which led to individual approaches and creative explorations. This unexpected benefit mirrored Creative

Ageing practice itself, allowing participants time to find their own creative approaches. This insight, along with Artists calls for greater creative freedom through less feasible design options contributes insight contrary to the accepted wisdom that each parametrically designed outcome has to be viable (Coyne 2014) and, instead, shows that they could simply be designed for the joy of creativity.

It was a design consideration that these were not seen as making, or crafting, activities, instead I intended for them to be understood as Design activities. However, I feel that a greater connection to the making of finished products would be an important development of these activities in Care Homes. Residents' ability to take part in, or at least witness some of the making stages involved in making objects would provide a deeper connection, as well as further opportunity for creative enjoyment. This could be particularly hands-on during casting or printing processes, for example.

As with the Artists' workshop I held at Shipley Gallery in my previous study (5.4.2), the reflective aspect of these interviews was a further unforeseen benefit to practitioners. Giving Artists the opportunity to interrogate the designed environment of Care Homes through reflection during these activities invited critical reflection and insight into the broader Design implications for the space. Given this, these activities may themselves be useful for staff as well as Residents, if framed as a creative training exercise, allowing diverse stakeholders the opportunity to reflect on the material designed environment, with possible implications for Residents, through collaboration in co-creative Design sessions.

6.7 Summary of Insights

Across a breadth of material interventions, this study highlighted the potential for Parametricism to inform co-creative methods to support Creative Ageing in Care Homes. Critical insight gained from participants illuminated areas for further development of Parametricism as an approach – to be built upon in Chapter 7. The opportunity for Residents to participate in the creation of the artefacts around them was seen as positive in three regards:

1. To afford autonomy and voice-giving for each individual to impact their own domestic environment;

2. To create products which reflect something of the individual and in so doing may challenge preconceptions, encourage conversation, and bring joy through acts of creativity;

3. To challenge the prevailing Design paradigm in Care Homes by inviting diverse stakeholders into the Design process as an opportunity for reflection of the significance and structures mirrored in the designed environment.

In the next chapter, I will synthesise these study insights with those generated in the first two studies; I will draw out insights and contributions from the whole doctoral programme that address my principal research questions and offer directions for future work.

7.0 Discussion

In this chapter I consolidate and discuss the key contributions made through my doctoral work in relation to my stated aims and objectives (1.1). I present the research understanding and evidence relevant to Design for Dementia that has been produced. I reflect on how this research has given me insight, and how it (i) grounds a value position aligned with Creative Ageing and (ii) contextualises the transferability, impact and scope of my findings.

First, I discuss how the empirical insight into Creative Ageing has informed and guided my practice-based research (7.1). I reflect upon my time at Pearson Green and the value of conducting Embedded Design Research, evidencing my conviction for a deeper understanding of the generative nature of designed artefacts and aesthetic experience in the Care Home. I then position co-creative practices, Art and Design, as political acts of citizenship that I value and align with as a Designer and Researcher (7.1.4).

Leading from this, I reflect on how Product Design practice aligns with a Creative Aging approach to shaping activities with Residents in Care Home environments (7.2). I discuss how the work presented in this thesis provides an evidence base for advocating and scaffolding Creative Ageing. Referring to the second study of this doctoral project (5.0), I explore the novel methods (7.2.1), material insight (7.2.2), and sensory interactions (7.2.4) co-created with Artists alongside People with Dementia, and reflect on how these insights informed the

methods used in my final study.

Addressing my third research aim, I consider the means by which People with Dementia can engage in the creation of individualised Design processes and outcomes. I discuss this aim in relation to my final empirical study (7.3). I critically reflect upon the potential application of Parametricism as a Design methodology, establishing the foundations herein (7.3) and proposing contributions to the field of Parametric Design. I build a case for taking an exploratory approach for engaging with established paradigms within the field of Parametric Design, and encourage Designers to embrace inherent tensions within this field to best exploit the co-creative and exploratory potential of this nascent Design practice.

I then reflect upon my methodological approach to the doctoral work (7.4), and my development of novel methods for pursuing my practice-based inquiry. I present the main challenges that I encountered whilst conducting practice-based Design Research in the context of Care, and look to the future development of the ideas established in this thesis before reframing the key contributions of my work.

As outlined in Chapter 1, my intention for this project was to critically explore the role that Design can play in facilitating increased autonomy and self-expression of People with Dementia in Care Settings, with the goal of improving their wellbeing and Quality of Life. In the remainder of this chapter, I systematically address each of my original research questions, highlighting the main contributions

to knowledge that have been generated through my research and reflecting on the project's scope and limitations, and directions for the future (7.5).

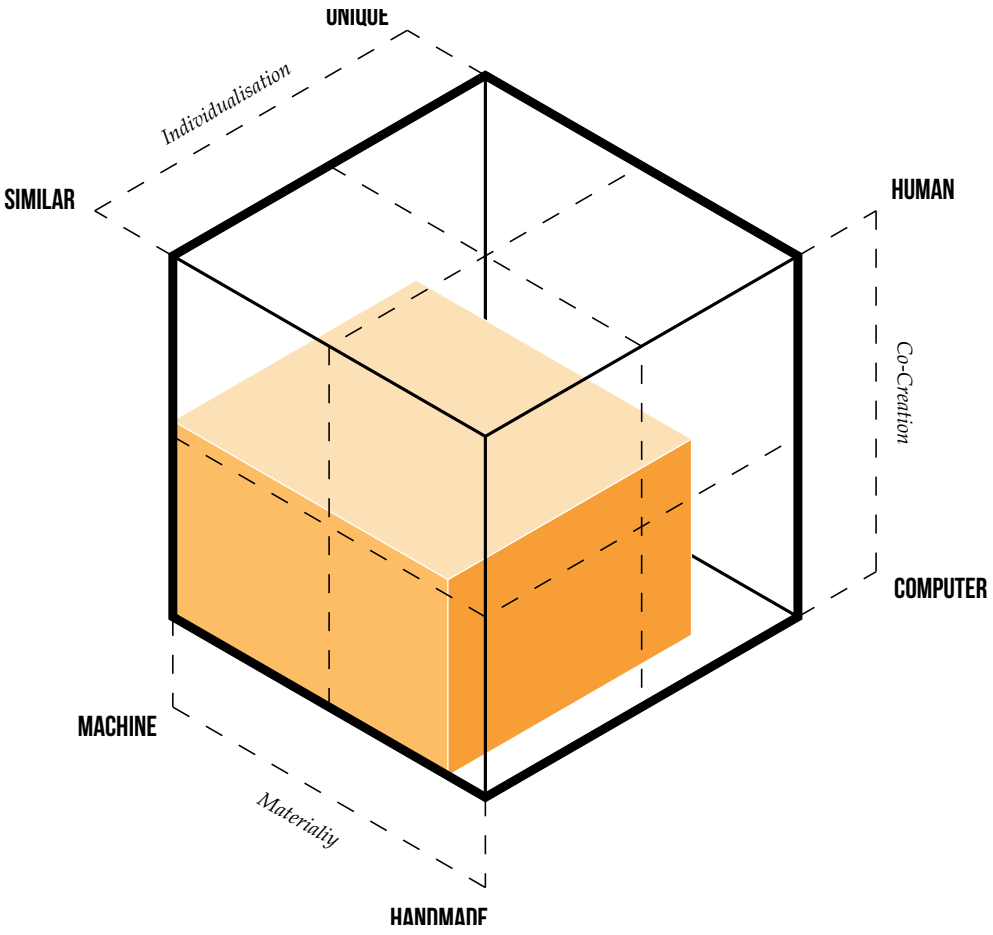


Figure 72. Individualisaton, Co-creation, Materiality Credit: The Author

7.1 A Critical Understanding of Creative Ageing

This thesis contributes transferable insight about Creative Ageing practice and sensibilities, to inform Design approaches aiming to challenge the homogeneity of Residential Care environments through creativity and participation.

Early in the research I set out to gain a critical understanding of Creative Ageing by conducting a Contextual Review; in which the term was conceptualised as an extension of Person-Centred Care and considered in relation to existing Design work, both academic and commercial (2.4). In this Review, designed artefacts were discussed in relation to the prevalent themes within Creative Ageing: co-creativity, individualisation, and materiality (Figure 58). These insights were then explored through my Embedded, Ethnographic research at Pearson Green, working alongside Creative Ageing practitioners and People with Dementia.

7.1.1 Doing Embedded Design Research

I built relationships with Residents at Pearson Green during the year that I spent working alongside Creative Ageing practitioners. This experience confounded my own biases and prejudices about working alongside People with Dementia. Despite reading broadly into Dementia Care, going into the Care Home for the first time I felt hesitant, nervous, and guarded – betraying my prescriptive and paternalistic preconceptions about the community. Initially, I was distracted from calmly meeting Residents; busying myself with fetching and carrying, spending extra moments alone outside the workshop, and needlessly fussing over how children would

be able to communicate with them (4.2.1). Over time, I became comfortable enough in the environment to meet with Residents and establish meaningful, genuine relationships within Pearson Green's community. Systematically recording and reflecting upon my experiences over time (4.2), I was able to interrogate my preconceived notions of what a Person with Dementia may be like, need, or expect, and gradually let go of these stereotypes, starting to meet people as people. These insights informed the Design sensibility brought to my subsequent studies, developing artefacts to support Creative Ageing practices (5.0), and activities by which Residents could engage in the co-creation of individualised Design outcomes (6.0).

Likewise, Embedded research posed unique challenges. Critical incidents, such as upsetting Polly during an activity I based around a story she shared with me (4.2.3.3), were central to my learning at Pearson Green. Systematic reflection upon these moments informed the development of my subsequent studies. Causing Polly to reveal a painful memory was a visceral experience that led me to question the ways in which designed activities may unintentionally focus on reminiscence. I realised I had encouraged Polly to recall the story from her childhood, on two separate occasions, rather than make space for storytelling regardless of its direction through more imaginative and exploratory approaches. Learning from this realisation, I aimed to deliberately scaffold engagements through the open-ended tools that I subsequently developed with Artists (5.0).

Developing an understanding of how Design decisions impact

people's lives in the Care Home through my personal experience in Creative Ageing workshops allowed me to mature as a Designer and question my assumptions about the role that Design can play in co-creative activities. I witnessed the joy that Artists foregrounded in the moment of making, rather than in generated outcomes themselves, through: quiet creative gestures being celebrated (4.2.3.2); new skills being fostered (4.2.3.4); and creative rebellion being enabled (4.2.2.3). This gave me further insight, inspiring me to reimagine the ways that designed activities may be facilitated. The insight led me to let go of the firm need for Residents to always create a physical *outcome* as the main aim, and rather to frame designed interventions as co-creative activities that may or may not result in a material outcome. This thesis joins voices in Design Research literature calling for future work that creates opportunities for more People with Dementia to benefit from these moments of co-creation – that *'should work to enrich this co-presence rather than to provide a facsimile of it'* (Morrissey, McCarthy, and Pantidi 2017, 1328).

Whilst being physically Embedded in the Care Home, I was also professionally Embedded with my research partners, Equal Arts, volunteering within this Arts organisation and offering Design expertise to them. By offering my help as a Designer wherever possible – to the Artists, organisations, and Care Settings I have worked with, I have been able to maintain equitable research relationships. For example, by contributing to developing and delivering the finished textiles artwork alongside Artists at Pearson Green, I learned and experienced how to try to affect change in the sector. Following my Ethnography (4.0), and after spending time in

the Care Home, volunteering and slowly building relationships of trust, I felt – I feel – Embedded; and this led to Equal Arts inviting me to collaborate with them on the development of physical-material tools to support their Creative Ageing Workshops in Dementia Care Settings (5.0).

7.1.2 Form is Function: Addressing Salutogenic Design Decisions in a Medicalised Setting

In my first study, the Ethnography of the Care Home, I was confronted with how much Residential Care Settings are medicalised as material design environments. This may be epitomised by the example of the unbroken landscape that I encountered at Pearson Green, of wingback chairs adorned with mis-matched pressure relief cushions (4.2.1). This apparent medicalisation of the setting signified for me the influence of medical voices within a Care Home.

Within a social, relational model of Dementia (Gilliard et al. 2005; Shakespeare, Zeilig, and Mittler 2019), these design decisions are not simply representative of attitudes towards users but are simultaneously generative of those attitudes. The interrelationship between the material, social, and political environment explored in this thesis illustrates that using plastic tableware, for example, is not only symptomatic of infantilisation in the Care Home but encourages infantilisation itself.

During Design engagements, I adopted Salutogenesis (Christie 2020), not only as a way of understanding Dementia, but as a deliberate Design approach, contrary to the prevalent pathological

narrative. For example, this meant prioritising the aesthetic, social, and material qualities of the Cups designed in my third study (6.3.1), above an individual's therapeutic requirements. This approach involves striking a balance and highlighting tensions in the Design context (Dykes 2017, 219) rather than shying away from them, yet also avoiding erring on the side of caution by default. Naturally, a valid criticism to consider, for example in the design of the Cups activity (6.3.1), might be that while activities enable certain forms of autonomy by individualising a design, they may lead to artefacts that reduce autonomy in the practice of Care – i.e., cups that are harder to drink from, that may require more social or professional support to use. As such, these design considerations need to be accounted for in an aesthetically sensitive manner, appropriate to each individual.

Medicalised narratives are found to persist around Dementia (Brooker and Latham 2015; Dewing 2008a), but Design can acknowledge the tensions inherent in working between ability and disability whilst also setting the agenda: the attributes of people can be foregrounded through the designed environment and this can arguably progress the adoption of a social model of Dementia. When designing individualised Cups, for example (6.5.1.5), Creative Ageing practitioners still raised concerns about Residents spilling drinks, or about being able to lift and hold certain cups. But the Design approach embodied aesthetic choice, creativity, and individuality first, with considerations given to pathology and disability second. This is not to downplay the importance of these design considerations, however. Instead, this thesis calls for Designers to avoid the Modernist maxim, of 'form *follows* function', but rather to understand

the power and potential of aesthetic experiences in the Care Home by accepting that 'form *is* function'. I suggest that one of the minimum requirements for designed artefacts' success is their appropriate and considered aesthetic performance.

7.1.3 Creative Practice as a Soft Political Act

I can relate my insights to the political roots of Participatory Art and Participatory Design, considering *'the simple standpoint that those affected by a design should have a say in the design process… a political conviction not expecting consensus.'* (Ehn 2008, 94); and build on the established understanding of Design as an ontology in which worldviews are created, controlled, and challenged through designed interactions (Costanza-Chock 2020; Escobar 2018; Manzini 2015); and in relation to these mature discourses, consider how co-creative Design work in the context of Dementia has political implications. These politics are appropriate to address systemic biases affecting People with Dementia: *'The tendency for older people to be marginalised or discriminated against, the tendency for their standing as selves to be undermined, the possibility for alienation from themselves, these are all political matters'* (Hughes 2011, 169). As Designers, making every effort to allow those who live in Care Homes to have a say in the design of those Care Homes should be fundamental, and Creative Ageing illustrates ways in which it can be joyful. This sensibility, informed by my empirical work, helps me position Design practice in the Care Home as a tool for social and political change, and speaks to the democratisation and agency at the core of co-creation (Sanders and Stappers 2008).

Understanding the designed environment in relationship to a contextualised paradigm of material, social, and political relationships through Habitus, and interpreting its significance through examining signifiers both in terms of Design and semiotics, (as presented in Chapter 2 (2.1.2)), can illuminate the political influence of external actors and historical biases in the Care Home. These signifiers betray the undertone of paternalistic, medicalised, and infantilising voices within the context of Care. Product Designers, likewise, have the opportunity to interrogate our own political influence through signifiers, and strive to leverage that value for social good.

Whilst Creative Ageing practice is increasingly accepted as a valuable activity (All-Party Parliamentary Group on Arts Health and Wellbeing 2017; Thwaite 2017), generated artworks themselves struggled to find a meaningful home in the long term, as part of the landscape of Care Settings (4.2.1). This tension was one of the principal justifications for the second study of this thesis (5.0), trying to find ways in which my practice as a Product Designer could leverage value, generate support, and scaffold Creative Ageing practice. In my final study, informed by insight from the previous studies, I could recognise the role of Design to advocate Creative Ageing; I chose to explore ways that creative expression could find paths into the Care Home through mundane Product Design interventions of the everyday space (6.0), activities that focus on creative opportunities. My aspiration is that future Product Design work in this context can capitalise upon its social value whilst not displacing Arts in the Care Home. Rather, I suggest that Product Design can be considered an *ally* to Arts in the Care Home, and can

function as a step towards normalising the inclusion of individualised creative outcomes by-and-for Residents as part of the material vocabulary of Care Homes, as a soft political act.

As such, giving Residents the opportunity to meaningfully contribute to defining designed products in the environment around them signifies a challenge to paternalistic notions of Selfhood, and potentially encourages the incorporation of self-expression into the material landscape of Care Homes. In so doing Product Design has the potential to advocate for Arts practice and Creative Ageing, having a lasting impact on the designed environment by addressing whose voices are allowed to ring out the loudest in the designed environment of Care.

7.2 Aligning Product Design practice with Creative Ageing in Care Homes.

I can also address my second research aim, to explore the alignment of Product Design practice with Creative Ageing in Care Homes. Artefacts created in the second study of this thesis (5.0) contribute new insights about the potential of Product Design to support and scaffold Creative Ageing practice. These artefacts were created in collaboration with my research partners, Equal Arts, and illustrate further ways in which Product Design can be an ally to Creative Ageing in the Care Home. This study also contributed Design Intentions to inform Product Design interventions in this context, developed through co-creative Design work carried out with Equal Arts (5.4.1.1). The work generated in this practice-based RtD study (5.4.3) also explored inclusive, creative, and aesthetic expression through sensory interactions to support Creative Ageing.

7.2.1 Design to Support Creative Ageing

The second study of this thesis, designing ‘In The Moment’ cases with Artists (5.0), contributes designed artefacts created to encourage ways that Artists are able to transform spaces, both social and physical, through Creative Ageing practice. Using co-creation, I worked with Artists to translate insight from Creative Ageing into material Product Design interventions to support the practice.

My intentionality whilst designing these artefacts was informed by the Ethnographic analysis in my first study (4.0) which allowed me to understand shifts in the environment of care during Creative Ageing

workshops. These shifts are understood through a critical, political, aesthetic lens (Hughes 2014; Hughes 2011; Kontos 2004); providing the empirical rationale to explore Design opportunities to support Artists. Examples of these shifts included Residents feeling invited, listened to, and relaxed in workshops (4.2.3.2), learning new skills which changed their perception of self (4.2.3.4), and being given time to explore creative expression through deliberate artistic acts - such as this extract from my account (4.2.2.3) as Lindsay experimented with a new stylistic approach:

> She worked meticulously until everyone else had left the workshop, and kept going as we cleared up around her, until she was satisfied with her work. As she was finishing, she seemed to have real ownership over the piece, *'well, I think it is quite nice… I've had a good teacher!'* She was beaming and had a little glint in her eye, the deliberate experimentation with her Art style paying off. '*You learn something new every day, don't you?'*

7.2.2 Material Design Insight

The design materials and the materiality of artefacts in the Care Home took on a number of meanings throughout my doctoral research. As I spent time in Care Settings, getting to know Residents and became familiar with the design language of the Care Home, the homogeneity of materials was increasingly apparent. The limited number of sources of products deemed 'Dementia Friendly' and the transient nature of Residential Care Homes meant I encountered the same designed objects time and again across different Care

Settings – this impression was echoed by Artists participating in the empirical studies of this project. On the archetypal Care Home cup, for example, Betty remarked:

> *'…They're all the same! There's no kind of, I think the word's differentiation… What I like about having all of these (options), if all of these were available then people could have that choice. (6.5.1.3)*

Secondly, objects and artefacts were often coveted, cherished, stroked, and gifted by and between Residents. This sometimes would include Residents feeling objects over time by simply brushing them against a cheek, such as the pom-poms we made in the sunshine at Pearson Green (4.2.2.1). Artists remarked on this behaviour also, both regarding supporting materials from Creative Ageing workshops, and designed objects generated during research activities, again, Betty remarked about the Cups activity:

> *'I can imagine very well, people who we have known, [Pip] at [Pearson Green] for example, who's got you know, issues with her eyesight would have a wonderful time just feeling all of these... and giving her opinion, on them and what she liked and what she didn't like about them, you know?'*

Material objects functioning as agents of Residents' self-expression was important where non-verbal modes communication were used creatively, either by Residents who may not be capable of doing so (Killick and Craig 2012, 63–71) or where language failed to

express Embodied experiences (Scarry 1987, 15–19). As such, the materiality and aesthetic sensation of these objects needs to be thoughtfully considered to echo the importance of each moment of communication.

Findings from the second study of this thesis (5.0) echo Treadaway's recommendations for '*carefully designed material properties'* (Treadaway et al. 2016, 8) as part of her Compassionate Design approach to help guide Design for people living with advanced Dementia, but with additional consideration needing to be paid to the quality and perception of materiality as a generative element of the designed environment. The materiality needs to be appropriate for People with Dementia, while also communicating to other actors the nature and significance of Person-Centredness; through material and manufacturing choices appropriate to adults, and indicative of the love and Care they deserve.

7.2.3 Design Intentions

Presenting findings from my first study to Equal Arts staff in co-creative Design sessions, I devised four Design Intentions for Product Design interventions aligned with Creative Ageing (5.4.1.1). To recap, they are: Imagination, Materiality, Agency, and Legacy. These intentions scaffolded design decisions in the second and third studies of my research, and led me to articulate a sensibility towards Creative Ageing.

Imagination describes the shift of perspective from prescriptive to exploratory. This perspective also encompasses a future-facing

dialogue, which takes a *questioning and creative approach* to engagements rather than drawing on reminiscence. This Design Intention hopes to promote playfulness and a productive ambiguity that fosters an open-ended engagement.

Materiality encourages a de-institutionalised aesthetic which should reflect Artists intentions to respect, to care, to create, and to challenge. The beauty of the social and artistic interventions I witnessed at Pearson Green should be echoed through created material quality, framing activities as experiences of aesthetic beauty.

Agency acknowledges the tension between the need for individuality and inclusivity in Care Settings but describes the intention to scaffold self-motivated freedom of expression. This intention mirror's Kitwood's '*Facilitation*' in creative terms, *'…enabling a person to do what otherwise he or she would not be able to do, by providing those parts – and only those – that are missing'* (Kitwood et al. 2019, 109).

Legacy articulates the tension inherent in understanding that the core work of Creative Ageing is in the doing, not the outcomes, but that those outcomes embody, record, and communicate acts of creativity outwardly. Generated artefacts also served as ambassadors for Creative Ageing and Equal Arts as an organisation, and as such should communicate the values of each through designed signifiers.

7.2.4 Sensory Exploration

Guided by the Intentions above (7.2.2) and the Salutogenic approach

to design decisions presented in the previous section of this chapter (7.1.2), designing artefacts intended for imaginative sensory exploration *(e.g., of Images, Textures, and Smells)* as part of 'In The Moment' cases was understood as a conscious creative exploration of the sensory environment, rather than an act of compensation for any given sensory impairment. Artists were able to incorporate these open-ended artefacts into Creative Ageing practice wherein each individual's needs were met to creatively approach modes of sensory adaptation as needed within a given activity. For example, whilst Residents at Pearson Green were working in a way that required clear vision, Alice devised a pom-pom making activity for a Resident with server visual impairment, Pip, which required her only to feel her way while still happily joining in with the workshop (4.2.2.1). With her extremely limited eyesight, the tactile and spatial nature of pom-pom making led to Pip expressing a really satisfying amount of control, plus a rare sense of autonomy over the making of each piece.

As a Design approach, this allowed the development of artefacts for 'In The Moment' cases to consider sensory exploration as important to Creative Ageing practice whilst avoiding reductionism through removing any elements of objects that may pose a challenge to individuals with particular sensory impairments. Instead, I encouraged the sensibility of Creative Ageing practitioners to responsively manage the needs of all of the Residents in each workshop. Again, this approach mirrors Kitwood, as well as other voices calling for less prescriptive, and more playful methods of creative sensory communication (Killick and Allan 2012; Kitwood et al. 2019).

7.2.5 Intimate Moments of Making

This thesis presents the aesthetic experience of designed artefacts as not only reflective of the socio-political context around People with Dementia, but also as a generative influence within that context. This is a reflection of understanding Design as a generative process (Csikszentmihalyi and Halton 1981) and contextualising the built environment as a relational actor within the Habitus (Kontos 2005; Kontos and Grigorovich 2019). In 'The Aesthetic approach to People with Dementia', Hughes argues for a social understanding of what he refers to as '*Negative Capability'* in the context of the creative Arts, for example, there being no call for accurate recollection in imaginative storytelling; *'In Dementia the context of forgetfulness is often crucial as to whether or not it would be regarded as pathological'* (Hughes 2014, 1410). This socially constructed model of disability can inform material Product Design by scrutinising the ways the physical built environment disables individuals through conscious design choices, undermining agency (Guffey 2017; Pullin 2009).

This approach highlights the aesthetic significance of experience for People with Dementia, and the power of Design practice to influence those experiences. This was communicated to me lots of times through interactions with Residents; Emily's quiet reflection *'I'm not that bad, am I?'* after following her creative instincts in going against the tide of an intended activity (4.2.2.3); Katherine's new-found knitting skills changing her family's perceptions of her abilities (4.2.3.4); or a Resident choosing to covet, steal, and cherish a prototype only to present it back to me; pulling it from her handbag and explaining that it was a prize she had won that was destined

for her mantelpiece (5.4.3). On each of these occasions, the role of material design has scaffolded and defined moments of joy and thoughtful interactions in the context of care, reinforcing Residents' agency and ability to choose.

Rogers' Phenomenological approach to Empathy (C. R. Rogers 1974; C. R. Rogers 1975), which laid the therapeutic foundations for Kitwood's Person-Centred Care (Kitwood et al. 2019), highlights the socio-political shift brought about during Creative Ageing practice. Rogers advocates fostering unconditional self-regard by lessening the disparity between the *real* and *ideal* selves (C. Rogers 1995, 107), the 'real' self can be understood as how we are, and the 'ideal' self is how we would like to be. In my experience at Pearson Green, this disparity was most evident when Residents were prohibited in behaviours which were deemed to be socially unacceptable; being noisy, playing, sleeping, forgetting etc. During Creative Ageing practice, there was less pressure placed on them to conform to certain expectations of what is, and what is not, acceptable. The result of this easing of social conventions through imaginative practice was, essentially, to allow a greater range of behaviours to be perceived by Residents and others as acceptable, *ideal* behaviours, and a greater range of behaviours to be acted-out through practice as *real* behaviours.

This thesis is guided by these empirical reflections, and also responds to the growing evidence base for the positive impact of Creative Ageing practice (All-Party Parliamentary Group on Arts Health and Wellbeing 2017; Thwaite 2017); through my account of

the doctoral work herein, I offer worked examples of how Product Design practice (not previously considered) can align closely with this creative, participatory practice.

7.3 Developing Means by which People with Dementia can engage in the creation of individualised Design outcomes

In response to my third research aim, (to develop thoughtful means by which People with Dementia can engage in the creation of individualised Design outcomes), this thesis contributes, supported by worked examples, the foundations for a new co-creative methodology for designing with parametric methods and techniques: Parametricism. Through my account, I have endeavoured to demonstrate the value of Parametricism to inform the design of novel RtD methods and to co-create flexible design systems that can generate *individualised artefacts* created with and for People with Dementia.

The final study of this thesis (6.0) explored how parametric methods and techniques can be adapted to enable Care Home Residents to individualise mundane elements of their designed environment of Care, namely *Cups, Pots, and Lamps*. I created three novel, physical-material artefacts that scaffold co-creative Design activities for People with Dementia (6.3.1, 6.3.2, and 6.3.3) and position these activities within the context of Creative Ageing whilst interrogating assumptions within common Parametric Design approaches.

7.3.1 Parametricism: Inviting Co-creative Methods into the Paradigm

Through my final study (6.0) I explored empirical examples of how a questioning approach to the assumptions of the prevalent parametric

ecosystem *(digital data, digital interaction, and digital manufacturing)* could allow the principles and promise of flexible design systems to generate meaningful Design engagements. I questioned these assumptions through the process of developing a new set of considerations upon Malakuczi's Computational Concept Canvas introduced previously (6.1.2) Embodiment, Creative Context, and Materiality into RtD activities.

The co-creative Design activities presented in this thesis were designed using these considerations and so the Cups, Pots and Lamps activities from my final study (6.0), may be understood as practices of Creative Ageing. This meant being led in the activity by each participant, and changing and adapting approaches to suit each individual, rather than the other way around. These activities draw focus on imagination, creativity, and new knowledge, working in context, creating a social-space, and embracing collaboration, exploration, and rebellion.

The approach to these creative activities is intended to echo Creative Ageing methods by embracing play and rebellion through open-ended creative or 'failure-free' activities that are focussed on engagement, experience and process, and not a designed outcome. This approach purposely sought to disrupt the homogenised environment that I encountered during my Ethnography, which was aesthetically at odds with the acts of Care I witnessed by and for the community of People with Dementia who I have been lucky enough to meet.

I suggest that this more inclusive approach foregrounds acts of creative and aesthetic individualisation above mechanical modes of individualisation; physiological, functional, or environmental. However, these different types of product individualisation are interlinked and should not be disregarded entirely. As outlined above (7.2.1), this approach could potentially result in products that are harder to use i.e., cups that are harder to drink from, that may require more social or professional support to use, as such these design considerations need to be accounted for in an aesthetically sensitive manner, appropriate to each individual. During the final study, when engaged in designing Cups, Pots, and Lamps activities, the Artists linked ergonomic and aesthetic experiences, remarking that the size range of wooden disks included in the lamp-making activity, for example, made the activity suitable for a wide range of levels of dexterity and grip, as well as affording aesthetic exploration. Likewise, Betty condemned the ever-present Care Home cup for its ergonomic homogeneity alongside its aesthetic (6.5.4).

Striving to define Parametricism by its creative potential, rather than its outcomes has given me reason to align with Architects and Designers (Coyne 2014; Rawes 2012) in calling into question Schumacher's assertion that it is simply a definitive visual language (Schumacher 2009). Rather, this thesis intends to strip away assumptions from parametric methods and techniques, and stress the value and importance of viewing Parametricism as an open-ended methodological approach. Parametricism, put simply, is:

'A system by which users may explore a multitude of possible design intentions.'

Working with Parametricism following this definition enabled the practice of co-creative RtD that was closely aligned with Creative Ageing practice, with implications for both Artists and People with Dementia. For the Artists, the Cups, Pots, and Lamps activities represented a new avenue for their practice which could incorporate designed products. The product life and implications for these products in the Care Home was similar to those of generated artworks, but with a perceived difference in cultural capital, as Residents were able to meaningfully individualise quotidian products whose design and manufacture was deemed 'proper', or more refined than the hand-crafted aesthetic of some generated artworks, due to the inclusion of industrial material and manufacturing processes. This higher fidelity was also deemed to connote value beyond the Artist-Resident relationship, with an opportunity to articulate Residents' creative contributions to their networks of Care, as Poppy remarked (6.5.4).

7.3.2 A Questioning Approach

My definition of Parametricism as *'a system by which users may explore a multitude of possible design intentions'* can arguably work in concert with, rather than in place of, established Design and Research approaches. An inductive Design Research approach makes room for nuance and looks toward flexibility and responsiveness, to keeping an open mind when designing material interactions. I suggest that manufacturing techniques should be

selected because they are appropriate to a given intervention, and that designed artefacts should emerge from a deep enquiry in a particular context. These approaches should draw together a whole range of holistic insights and tensions in the context.

As such this thesis establishes the foundations of a new methodological approach, Parametricism, to be adopted in concert with Design Research practice. This methodological lens can provide critical awareness of how the interplay between types of individualisations have been previously siloed into separate categories in extant methods, such as separating emotional from mechanical individualisations (Malakuczi 2019). Through this proposed new lens, the interplay between these modes of individualisation can be appreciated, such that any mechanical change will influence the aesthetic of a product and *vice-versa.* Again, in the example of the Cups activity, this meant accounting for the physiological needs of each user on an individualised basis following the creative activity.

Translating creative freedom into Product Design practice, through a critical and generative engagement with parametric methods requires Product Designers to broaden their definition of a successful intervention, to move away from the idea of a rigid and 'viable' product, and to embrace the unknown, the absurd, and the rebellious; *'we must leave dogmatism outside and embrace mystery largely as the norm'* (Killick and Allan 2011, 241). This insight was reconfirmed by what the Artists voiced in my final study, suggesting the exploration of impractical, implausible, or even impossible design

ideas for the joy of creativity, rather than to inform a finalised design (6.5.1.3).

This perspective on co-creative RtD practice takes advantage of the socio-political, therapeutic, and creative benefits of an inclusive approach, and adds greater value to the adoption of flexible design techniques by placing equal value on (i) the moment of making, the joy of Embodied interactions, and the context of those interactions, and (ii) the generated outcomes themselves – even so much as to allow the possibility of no generated outcome whatsoever still being regarded as a success.

Given this perspective, the generated artefacts themselves, i.e., Cups, Pots, or Lamps, embody the process of creation; and that is important, for expressing the individualised nature of the objects.

Understanding designed outcomes as the manifestation of a making activity – a record which communicates outwardly that it was designed, rather than seeing co-creative Design as the means to an end with a finished artefact being the intended outcome, led me to question many of the assumptions of how Product Design expertise can add value to the Care Home. The Artists at Pearson Green understood this perspective intuitively, but this was not the case for some external actors in Creative Ageing workshops, such as the funding body who wanted to see a tangible ‘finished’ artwork (4.3), or Care Home staff who would step in to do activities for Residents (5.4.2), rather than seeing a piece only partially finished.

7.3.3 Implications for Co-Design and Creative Ageing practice at Scale

Framing Parametricism in this more open-ended way holds each individual person at its core, rather than each design outcome. However, Parametricism still sits in the context of Product Design and, naturally, has implications for ideas of scale and manufacturing within Design for Dementia.

In the Contextual Review of this thesis I synthesised calls within Design for Dementia for greater access to individualisation to scaffold and encourage Person-Centredness (2.2.3), as well as the call for new approaches to designing individualised outcomes at a scale commensurate with the population of People living with Dementia (Kenning 2018). This call is echoed more broadly with Dementia Care, where individualisation is increasingly encouraged in all elements of living, daily activities, and the environment:

> *'Instead of 'can' personalisation work, surely we need to be asking 'how' we make it work on a scale whereby it becomes the expectation of anyone seeking care and support to help them live well with Dementia.'*
> *Jeremy Hughes, Chief Executive of Alzheimer's Society, Foreword to (G. Bailey and Sanderson 2014)*

Designed activities and outcomes presented in this thesis sit in the gulf between mass-manufacturing and bespoke craft interventions. Though the studies of this thesis were not conducted at scale, manufacturing feasibility is a central part of my training and practice

in Product Design, and so was considered throughout. I encourage Designers to explore batch-manufacturing techniques which can be amended through flexible design systems to accommodate a breadth of outcomes. The work of Phil Cuttance (2.4) and others lights a path to participatory manufacturing as well as individualised design, wherein the tools of manufacture are as joyful to use as the finished products, and he offers workshops to create vases, rather than solely selling products. This model echoes the nature of Participatory Arts and the Creative Ageing practitioners like Betty, Poppy, and Alice who have contributed so much learning to my doctoral work.

7.4 Practice-Based Inquiry

Practice-based research is an intentionally open-ended term. Conducting research in this way has allowed me to respond to engagements intuitively, creatively, and with an exploratory spirit. In this section I will reflect on the novel methods in material Product Design that I have developed through my Embedded practice research. I will highlight where I have made methodological innovations, including through the use of creative design materials in data analysis.

7.4.1 Research in Concert with Practice

Research through Design (RtD) has provided me with a framework (3.2.2) to explore designerly ways of knowing (Cross 2001) that closely resembles my studio practice; this has itself added value to data gathering analysis and research communication. RtD provides the conceptual resources to meld inquiry around Embedded practice, and to support practitioners. Throughout my doctoral studies I have approached RtD as a project-grounded process (Findeli et al. 2008) that prioritises the design process in the context of research, rather than the other way around.

RtD has guided me in developing a number of novel analytic methods to elucidate critical insight. This has become particularly relevant in the context of visual methods when applied to doing research which does not rely on verbal communication. In the Care Home, the Artists' sensibility to visual material practice was suited to the Residents as a possible mode of communication – and this was intuitive to me too as a creative practitioner with visual

communication skills.

More formally, responding to mixed media data through the use of animation, video editing, drawing, and digital design – skillsets I can draw on as a creative practitioner, has allowed me to build new depths of insight and context. Specifically, I have worked with datasets in a way that felt intuitive to me as a Designer beyond established video and visual methods that use the camera to document work, but do not use generated photo and video as a creative medium (Pink 2013; Pink 2015).

I found that while analysing video in the second and third studies of this thesis using closed-captions in place of a traditional textual transcription, so that metadata is linked, added a wealth of context to words in combination with gestures, or objects which may have been being indicated or created at the time of speaking. Systematically applying this method left me with rich records of research activities, which are easy to return back to in the future.

With the addition of analysing digital photographs taken at the time, and photographs of each artefact taken after the workshop to contextualise insights further, I created a corpus of data that was greater than the sum of its parts because of the rich contextual information that it provided as a corpus, rather than stripping out the context of a gesture, or of the artefact in question, or of my interpretation of the moment as a Researcher. Each data point was held in time, and space, as it was recorded, which was significant in providing context for analysis. This was an intentional response to



Figure 73. Still from Shipley Gallery Workshop Video. Credit: The Author

the Hermeneutic Circle from a practice-based perspective, given my experience working in video.

In the example frame shown, taken from the Shipley Gallery workshop for my second study (Figure 59), both teams were video-recorded working simultaneously by configuring a wide camera shot and composing the video with corresponding recorded audio tracks separated and panned Left and Right respective to each team's position in the final rendered video, allowing me to choose to listen to either team at any point. Transcription was added per team, as a separate closed-caption file, displayed spatially along with the video's timestamp. iPhone photography being captured by me in the top left of the frame is displayed below, and the concept which Artists on the other team are discussing has been illustrated as a hand-drawn animated overlay. A step-by-step explaination of how I used this method is included in the appendix (9.5) and examples of the outcomes of this technique are illustrated in the included appendix (9.6).

Similarly, choosing to audio-record Ethnographic fieldnotes was a natural response for me, working in a manner in which I was most comfortable that bore unexpected fruit. Again, my fieldnote accounts were transcribed with the audio-data intact, and linked as metadata, so that not only what I said, but how I said it can be accessed at any point as long as the files are kept on record. I am, personally, more comfortable speaking than writing, and can be more in-tune as a listener than as a reader. This method is also explained in greater detail in appendix (9.4).

Each of these methods allowed me to approach and understand RtD on my own terms, and inspired responses in equally diverse media, be it animation, drawing, model-making, 3D design, or otherwise. These exploratory, sometimes playful, methods weren't always translated into clearly defined formal studies, but each instance allowed me to make sense of my experience in a manner which suited my training and creative freedom. One such example is included in the accompanying photo-book appendix to this thesis (9.1.2), where diagrams doodled in the margins of my fieldnotes from Pearson Green became animations, creative coding experiments, interactive 3D models, and later physical-material prototypes, the outcome of which was just to direct lines of enquiry into my second formal study. The freedom to work in this exploratory manner set the tone for my enquiry, inspired and mirrored by the freedom of Residents in Creative Ageing workshops.

7.4.2 Conducting Research by Making Things

RtD and the nature of practice-based research have allowed me to explore and create knowledge my making things throughout my doctoral work. Whether digital or physical, the process of articulating insight through making is the main way that I make sense of the world and has proven to be an invaluable asset to my research. Designerly experimentation, such as the overlaid animations on the workshop video analysis from my second study - presented in the appendices to this thesis (9.5, 9.6) - helped to scaffold research engagements, both communicating concepts through Design and also illustrating to my research partners the scope and potential of the roles that Creative Design could play in supporting their work and

to communicate their expressions and responses as participants.

As a Product Designer by training, I think most clearly around physical material processes. It is fair to say that I underestimated the challenges of working as a Product Designer within a university, given the resource-intensive nature of my practice compared to those conducting research using traditional, established methods, or pursuing research in different fields. This limitation forced me to work responsively and to adapt my intended work output, exploring more creative digital and graphical outputs, such as responsive animations, filmmaking, and illustrations which are included in the appendices of this thesis (9.1, 9.3, 9.4,9.5). In the next section, I outline further challenges and limitations of my doctoral work, and the scope of its contributions.

7.5 Contributions

In this section I set out my key thesis contributions and reflect on the scope of the project, its potential impacts, and the future research directions that it inspires.

7.5.1 Summary of Thesis Contributions

Through my inquiry I have been guided by three research questions:

1. **How is Creative Ageing practiced through creative engagements in Care Settings by Arts and Design practitioners to support People with Dementia, and what is the experience of these engagements for those involved?**

Informed by longitudinal Ethnographic research this thesis contributes situated investigation into Creative Ageing practices and insight into the experiences of Residents taking part in Care Settings.

Embedded research practice informed my own value position, aligned with Creative Ageing, enabling me to critically address biases and assumptions that I embody. Systematic reflection on my experiences, and critical incidents, allowed me to identify these biases to inform my RtD sensibilities.

This thesis contributes a contextualised understanding of ways in which the designed environment is simultaneously reflective and generative of attitudes and behaviours through Habitus.

2. **How can Product Design practice and the resultant designed artefacts support a co-creative research engagement with People with Dementia in Care Settings?**

Novel sensory artefacts were developed with an aesthetic sensibility to the environment of Care Homes. This thesis highlights the importance of aesthetic experience in bringing moments of joy, and challenging preconceptions held by Residents themselves, and their wider networks of Care about the creative potential of People with Dementia.

Guided by a Phenomenological methodology informed by Salutogenic Design approach, co-created tools and RtD artefacts supported and scaffolded Creative Aging. The practice set out in this thesis emphasises ways in which Product Designers can be allies to the Creative Ageing movement.

3. **How can methods be developed for the co-creation of individualised design outcomes, informed by a critical exploration of parametric methods and techniques?**

Co-creative Design activities contribute ways for People with Dementia to meaningfully individualise designed products in their domestic environment. The ability to impact the designed environment of Care is understood, through Habitus and a social-political model of Dementia as a soft political act.

The critical exploration of extant parametric methods and techniques presented in this thesis demonstrates the value of Parametricism,

establishing the foundations of a new methodological approach for creating flexible design outcomes that thoughtfully explore Embodiment, Creative Context, and Materiality.

- I have contributed a critical understanding of Creative Ageing to inform Product Design practice that is guided by Person-Centred Care and co-creation (addressing research question (RQ)1).
- I have highlighted how Product Design expertise can contribute to Creative Ageing practice, shaped by the Design Intentions that I have offered up when working in this mode (addressing RQ2).
- I have contributed a case study example of practicing Research through Design (RtD) as a Product Designer, demonstrating value of material design insight for Creative Ageing practice that is grounded in exploring the sensory, the Embodied, in the material environment and through intimate moments of making (RQ2, RQ3).
- I have developed means by which People with Dementia can engage in the creation of individualised design outcomes, by contributing new methods and a new conceptual lens on the Parametric Design paradigm characterised by a questioning, generative and critical approach. This raises implications for conducting co-design at scale and for how individualised design outcomes are envisioned and produced (RQ3).
- I have extended existing Parametric Design frameworks by introducing a distinct focus on Embodiment, Materiality and Context to inform Parametricism, establishing the foundations of

a new methodological approach that supports Person-Centred and individualised co-creative Design practice (RQ3).

7.5.2 Limitations of this Research

At the outset, I had intended for of the work presented in this thesis to prominently feature the voices of People with Dementia. Although I think this is the right mindset to approach an inclusive Design project with, I was perhaps naive to the legitimate ethical tensions between individuals, organisations, and academic institutions surrounding People with Dementia. The result of this is that People with Dementia do not feature as prominently in this account as I had initially hoped.

The irony is not lost on me, of reporting on pseudonymised engagements alongside People with Dementia in a thesis that is principally intended to encourage the inclusion and amplification of those People with Dementia's individual voices. I felt honoured to meet many lovely Residents, staff, and families, and I wanted them to be as involved in my research as possible. However, the ethical tensions in the context of Dementia are complex and justified regarding the ways in which people can be safely included in inclusive, Person-Centred research. It is my hope that this thesis joins voices in the Care sector, encouraging greater inclusion of People with Dementia, and especially those with Moderate and Advanced Dementia in the research; these are the people whose lives may be positively impacted through the use of inclusive approaches to research and consent (Dewing 2008b; Murphy et al. 2015).

The qualitative scope of my work has contributed a ‘rich picture’ that illuminates in detail the lived experiences of a group of individuals in a Care Home in the North East of England, in partnership with Equal Arts. I recognise that my findings are not intended to be broadly generalisable, but contribute to a growing number of qualitative case studies demonstrating the positive impact of Design practice to shape individual lives in terms of support to Care and to achieving wellbeing and Quality of Life.

The advent of the Covid-19 pandemic has had a profound effect on the Care sector as a whole, and eclipsed the final year of my doctoral research. Due to the restrictions placed on research activity at the time of my final study, I was not able to work with the Residents who featured in my first two studies. Furthermore, it would have been unethical to try to include these Residents in my research during the pandemic, and meeting in person was not possible due to Government restrictions and safety measures.

Despite occasional setbacks and compromises, I look forward to continuing to develop this research alongside People with Dementia and building upon the personal and professional insight I have developed through practice during my doctoral work, my plans for which I outline next.

7.5.3 Future Directions

Equal Arts staff members, and in particular the Artists who work for the charity, have been steadfast partners throughout my studies. I look forward to continuing to develop projects with them across the Care Settings and with the Residents with whom they do such vital work.

It is my intention that the key findings of this thesis can make academic contributions to a number of fields of knowledge and communities of practice. Firstly, I hope that my methodological findings can advance discourses in Design for Dementia, Person-Centred Care, and Creative Ageing, engaged with by Design Research communities that I have connected with during the PhD, including Design4Health, Dementia Lab, and Research Through Design (RTD). I hope that research dissemination in these venues and others will help advance the discourse around co-creative practices with and for People with Dementia.

Secondly, I hope these methodological insights can inform those Designers and Researchers working in Parametric Design, or more broadly who are engaged with the paradigm of Parametricism to develop co-creative practice. Personally, I intend to expand my exploration of Parametricism beyond its application in Design for Dementia, and conduct activities including young Designers with the aim of collaboratively maturing the approach.

Thirdly, I intend to build upon and communicate my insight through

future work alongside practitioners working in the Residential Care sector. I aim to work with organisations to develop a culture and the practical scope of service provision within the Care Home to enrich and promote 'living well' with Dementia, and achieving Quality of Life on a daily basis; the qualitative findings from this research demonstrate, and evidence, the positive value of co-creative activities and designed interventions into the lives of Care Home Residents.

Finally, I believe that the Design approach I have presented in this thesis has applications beyond my discipline, and beyond this given context. Over the course of conducting the studies presented in this document, it is my hope that the approaches described, for designing things in the right way for People with Dementia, are moreover approaches to designing things in the right way for *people*. I have built an understanding of the Designer as a curator rather than product developer, scaffolding discussions rather than dictating decisions. Through open collaboration with partners in practice, I feel that this work suggests ways for Designers to expand on the understanding of our work and invite others' in to share in the voice-giving benefits of it's processes, as well as its outcomes.

7.6 Closing Statements

This thesis contributes a critical understanding of the growing Creative Ageing movement, informed by Embedded Ethnographic Design Research and practice. I have explored how acts of creativity by People with Dementia can affect personal relationships, social constructs, and power dynamics within the environment of Care.

Through novel designed interventions I illustrate ways that Product Design practice can be aligned with, and be an ally to, Creative Ageing in Care Homes. The ‘In The Moment’ cases designed in my second study supported and scaffolded Creative Ageing practitioners through designed artefacts as well as scaffolding creative and aesthetic expression by People with Dementia. These novel artefacts also enabled explorations of sensory modes of interaction through the material language of design.

By exploring Parametric Design methods and techniques that allow Care Home Residents to individualise elements of the material environment, I have reframed Parametricism establishing the foundations of a new methodological approach. This approach invites greater nuance and broader application into the nascent field. In doing this, I have presented new methods for addressing the identified under-adoption of this promising Design approach (Malakuczi 2019), and responded to calls for new methods in co-creative practice, to explore the potential of greater individualisation alongside People with Dementia (Kenning 2018).

I have interrogated the materiality of interactions and examined what counts as a successful outcome of Design activities within the paradigm of Parametricism, bringing Product Design as a novel context in which to contribute to the growing evidence base for access to creative expression as an important factor for impacting Quality of Life.

Through Embedded RtD practice, I have called into question what can be included as a creative engagement, informing the development of co-design by Creative Ageing in Care Homes (Collingham, Durrant, and Vines 2020).

I have contributed co-creative Design activities for Care Home Residents to individualise mundane elements of the Material Environment of Care through which I understand the political potential of co-creative RtD. These interventions work to scaffold the voice-giving potential of empowering People with Dementia to substantively impact their designed environment of Care.

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Product Design to Support Creative Ageing for People with Dementia: A Practice-Based Inquiry

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Appendices

PhD

2021

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Appendix 9.1
Photo Book

henrycollingham.com/photo-book

This appendix documents the majority of the Design Practice carried out during my doctoral research. Documentation of Practice-Based Research Artefacts is presented chronologically to correspond with text presented in the main body of my thesis; adding visual context to the experimentation and development behind each piece.

Drawings in this appendix include sketches, illustrations, observational drawing, CAD development and technical drawings. Photography was used to document my making process. Where necessary, images are annotated with additional information not included in the main body of the thesis relevant to each artefact.

All images are credited to the Author unless otherwise stated.

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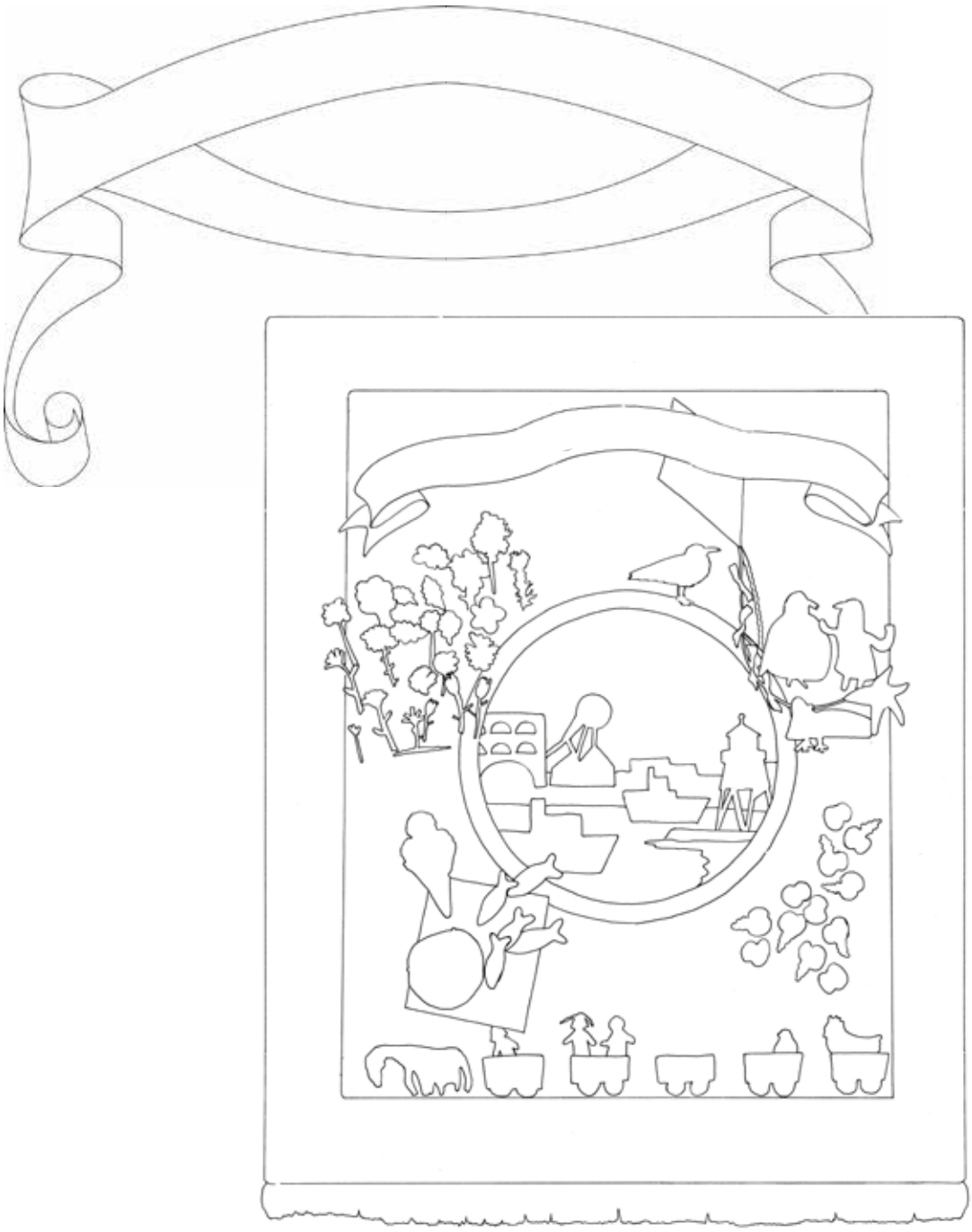
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Pit Banner

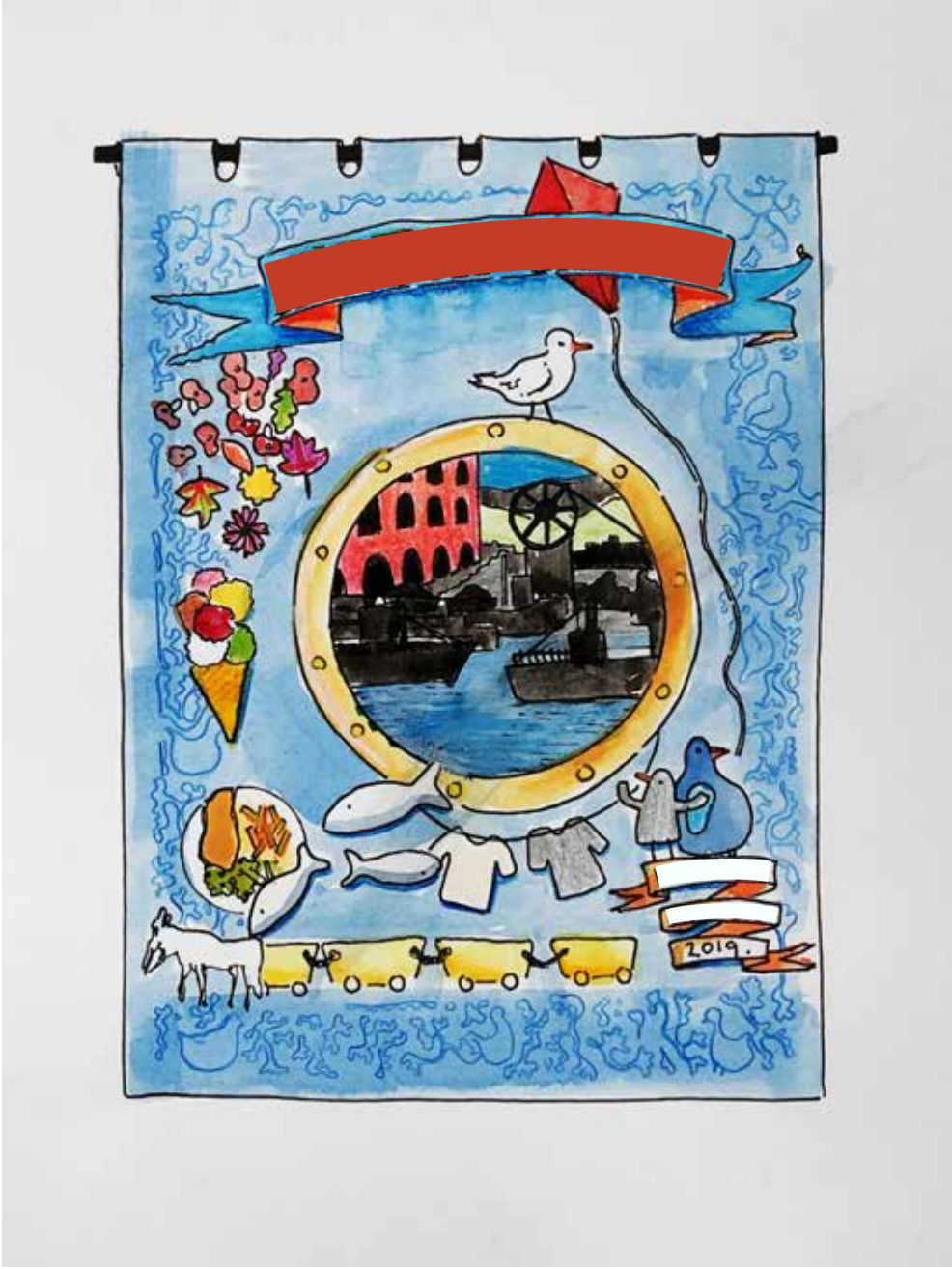
To contextualise my Ethnographic Account (4.2) of my time at Pearson Green, I've included a few images of the Pit Banner we developed alongside residents.

Identifiable information had been blocked out. Sketches, layouts, and the finished Pit Banner are shown as well as the fabulous Artists, Betty and Alice, who ran the project.

Scroll work Design, Banner Layout



Pit Banner Watercolour



Artists, Betty and Alice



Image Credit: Equal Arts

Alice and Pit Banner



Image Credit: Equal Arts

9.1.1 Social Choreography

Illustrations, Animations, and Working Prototypes which I created responsively to the time I spent at Pearson Green. As I reflected upon the time I spent with Artists.

This exploratory work does not feature as a study of my PhD, rather it represents visual and material ways of knowing, and a process of sense-making through praxis as I reflected on my experiences at Pearson Green.

The materiality of these artefacts and their playful quality sparked conversations informing the first empirical design study of my doctoral work (5.0). I reflect briefly on these artefacts as a designerly mode of inquiry in the Discussion Chapter of my thesis (7.4.1).

Stills from Animation (Right)

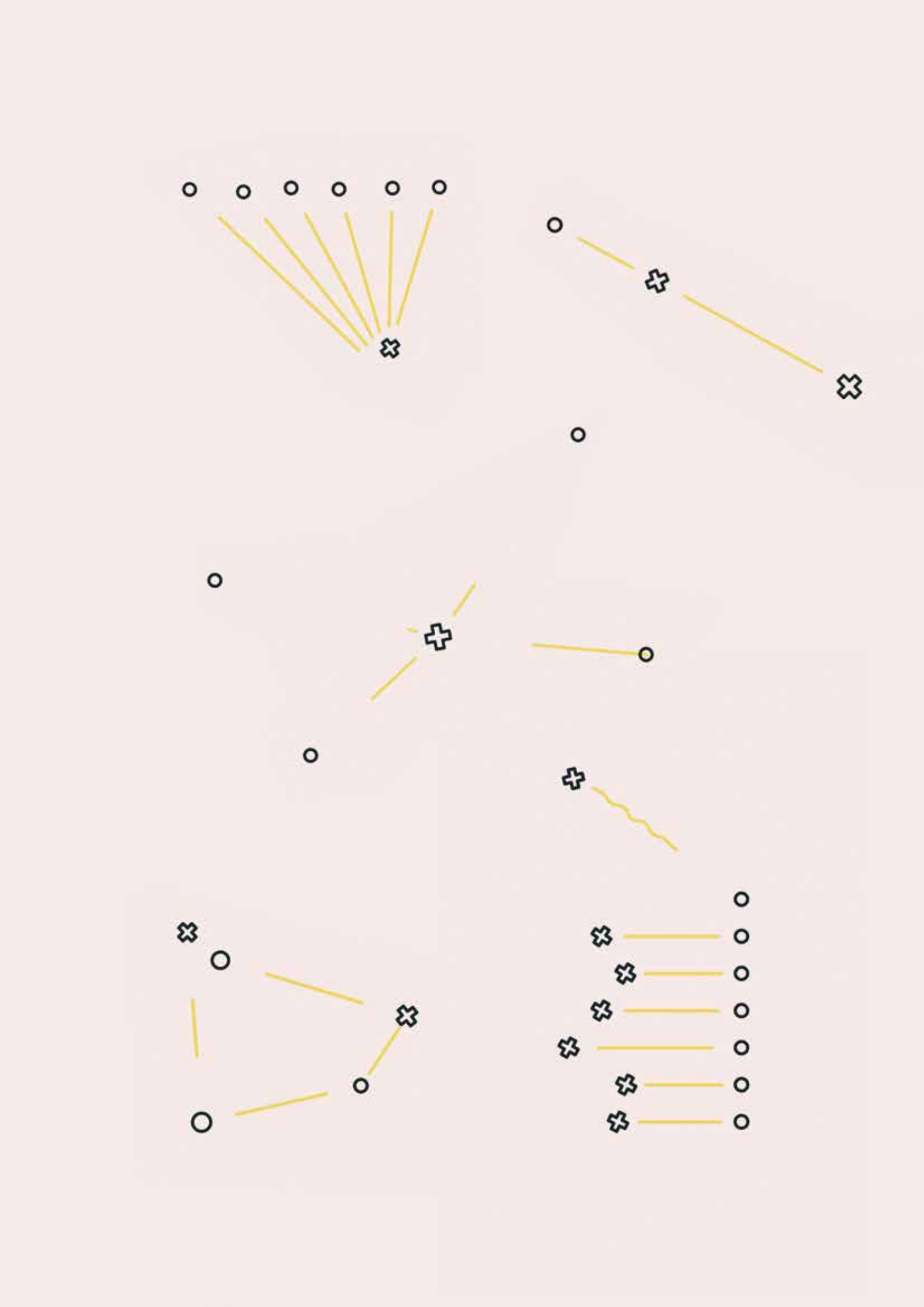
Whilst coding field notes from Pearson Green I started to illustrate the relationships between people and objects in Creative Ageing workshops.

Sometimes these diagrams represented social behaviours; leading and following, copying and sharing, rebellion and conformity, other times they represented the ways in which objects introduced into the workshops clarified the activity at hand, or sparked new creative directions between residents.

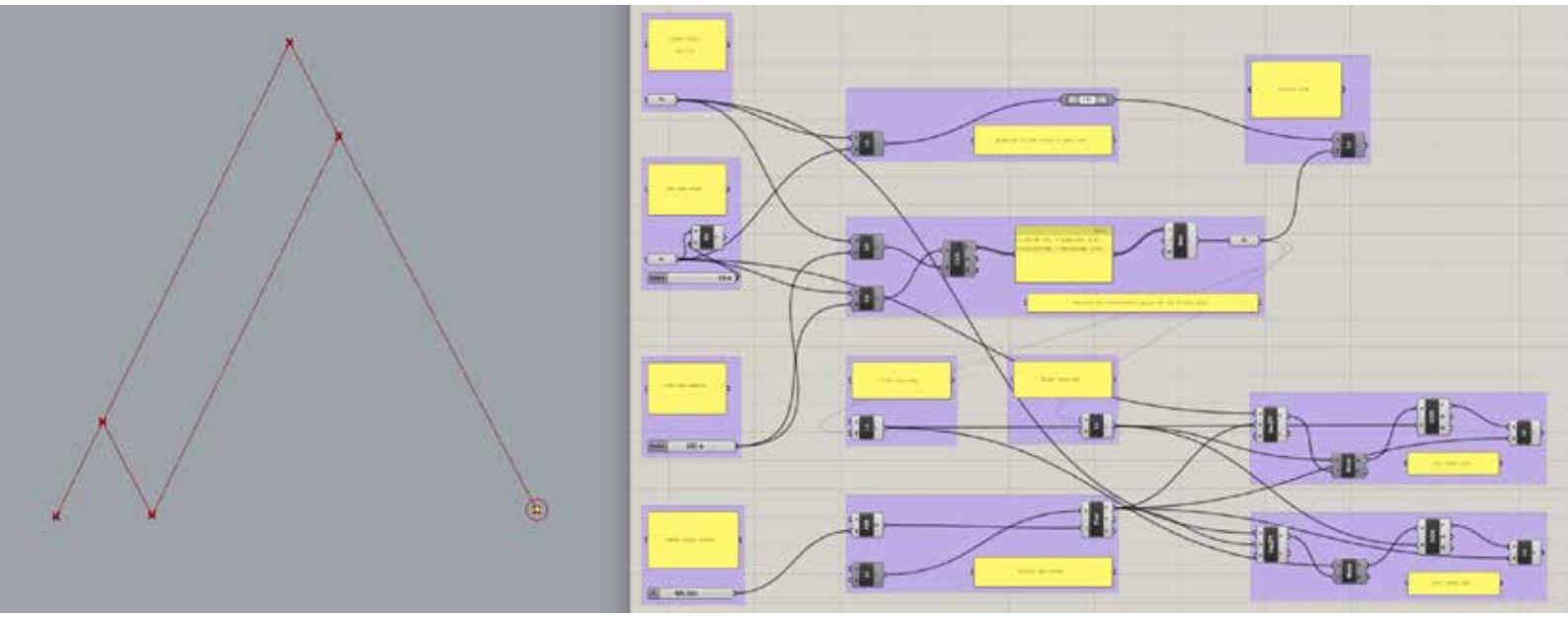
These examples were initially drawn with dots, crosses, and lines in my notebook as I coded my field notes. I chose to animate the examples together into a playful motion-design piece. These frames are taken from that animation, made in Adobe After Effects.

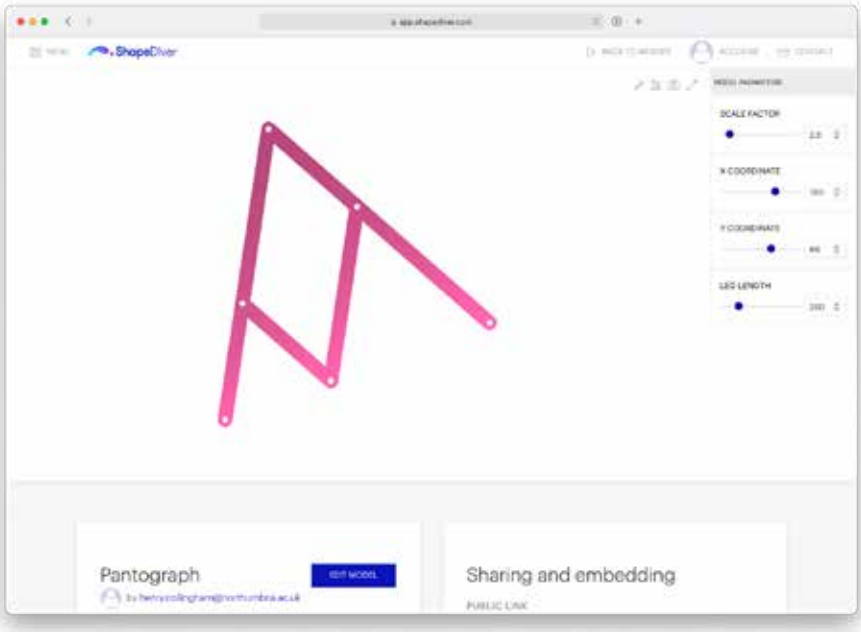
Following these animations I scripted a parametric design for a pantograph, allowing drawings to be translated up or down in scale. Experimenting with a cardboard pantograph made with this tool, I noticed ways in which drawings could be distorted as well as scaled uniformly, then going on to experiment with similar forms.

I 3D modelled modular components allowing Sharpie markers, commonly used in Creative Ageing workshops, to be connected on the ends of brass rods, as well as at the joints and along lengths of these configurations, allowing for a physical material exploration of these initial diagrams through a playful interaction based around mark-making.

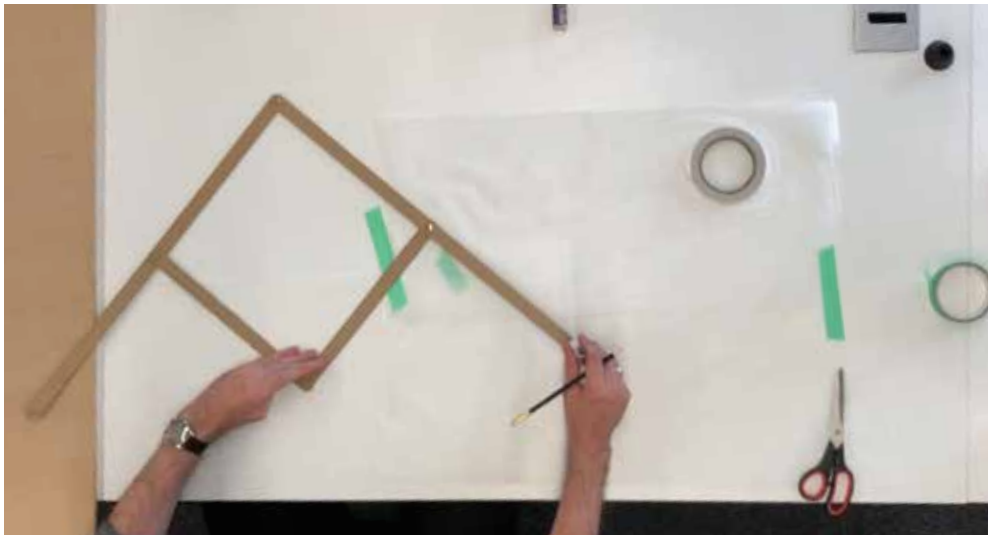


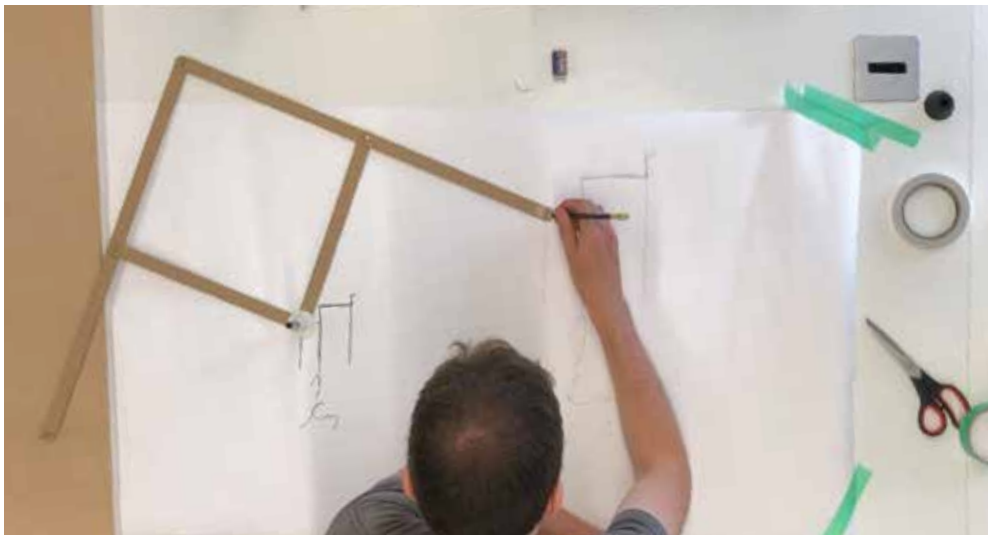
Parametric Pantographs

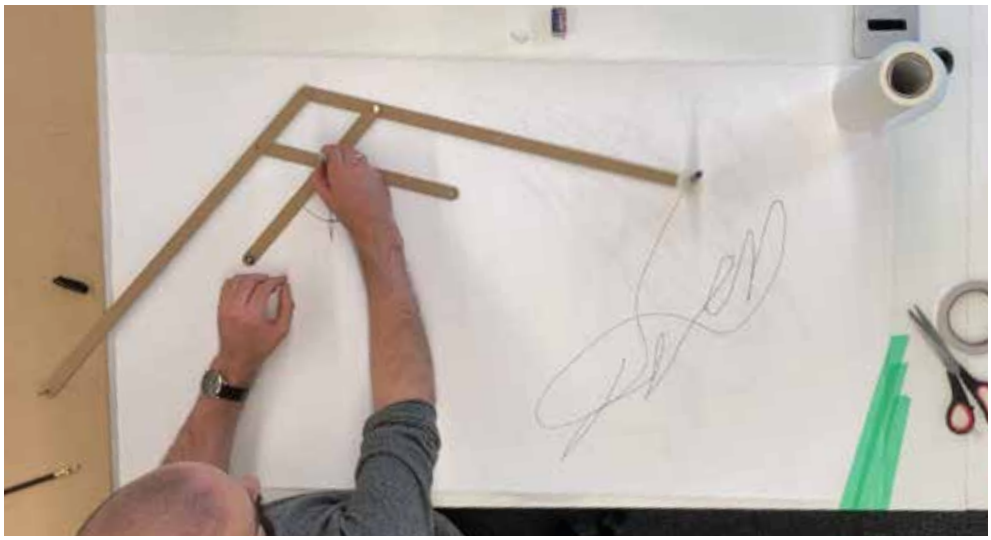




Pantograph Tests







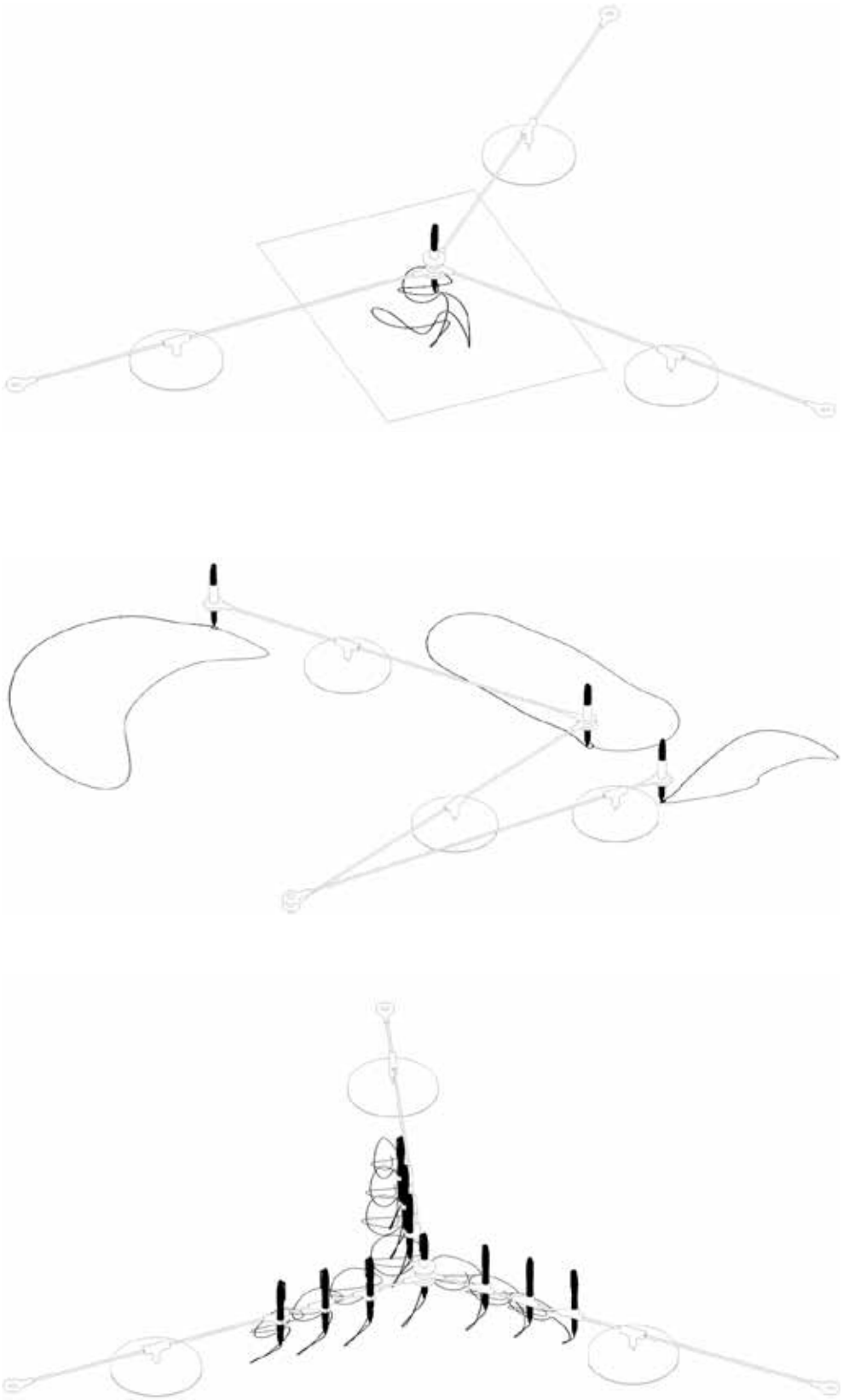
Component Visualisation (Right)

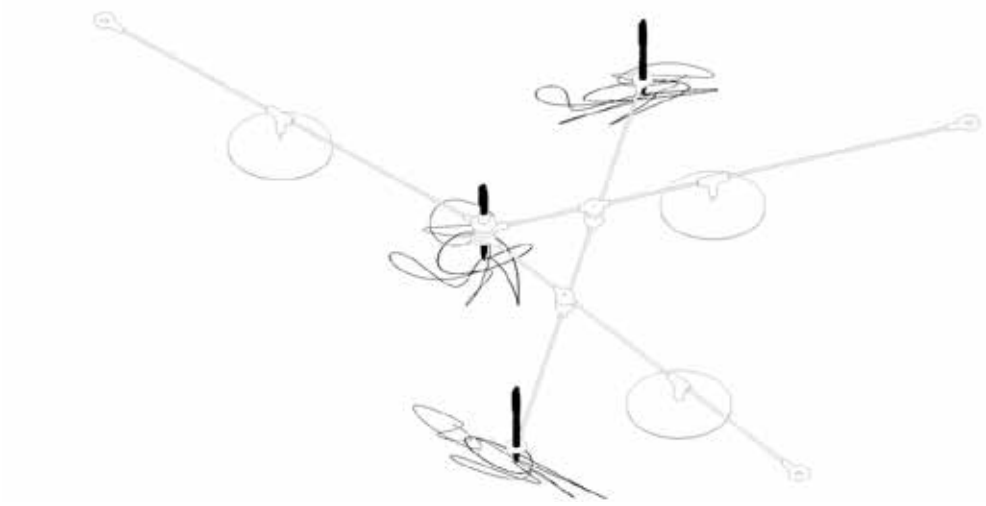
3D components designed to fit to Sharpie markers. These components hold Sharpies on brass rods, and allow the joints and pivots to be configured into modular drawing machines.

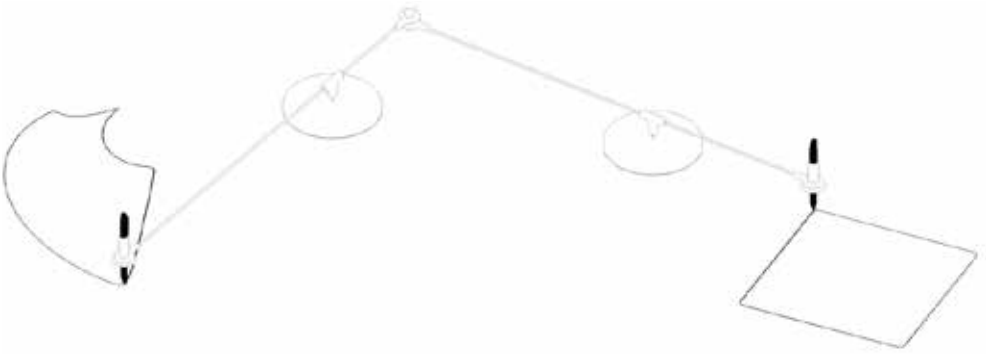
These parts were printed in PLA, and used in the studio for exploratory testing, informing some of the development of tools in my second study (5.0) through social-interactions and materiality.

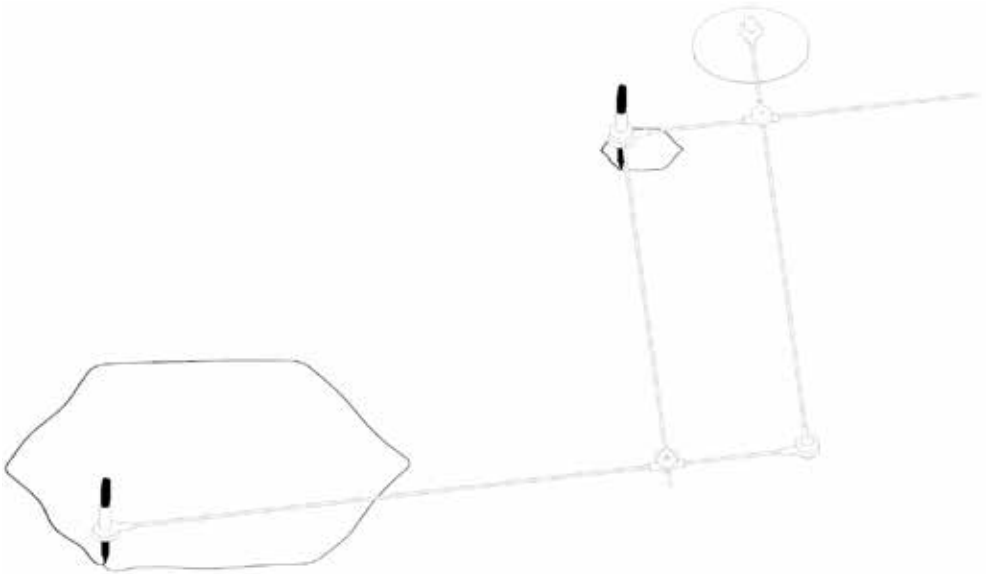


Configuration Animation Frames









3D Printed Components



Hinge Configuration



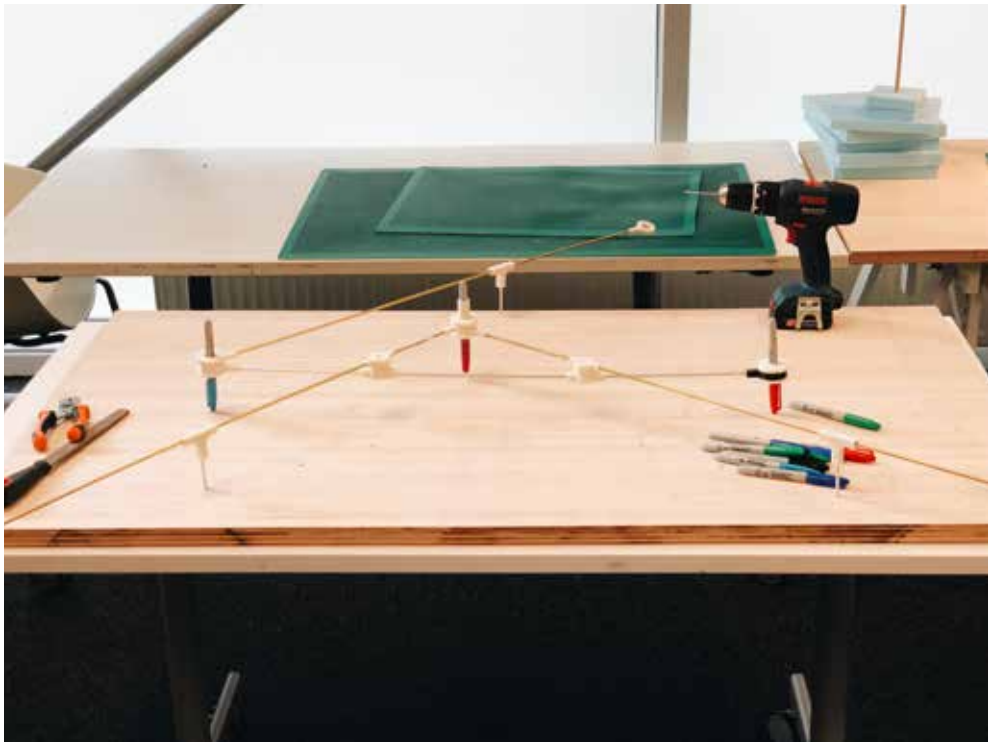
Pivot



Extension



Test Configuration



Multiple Pens



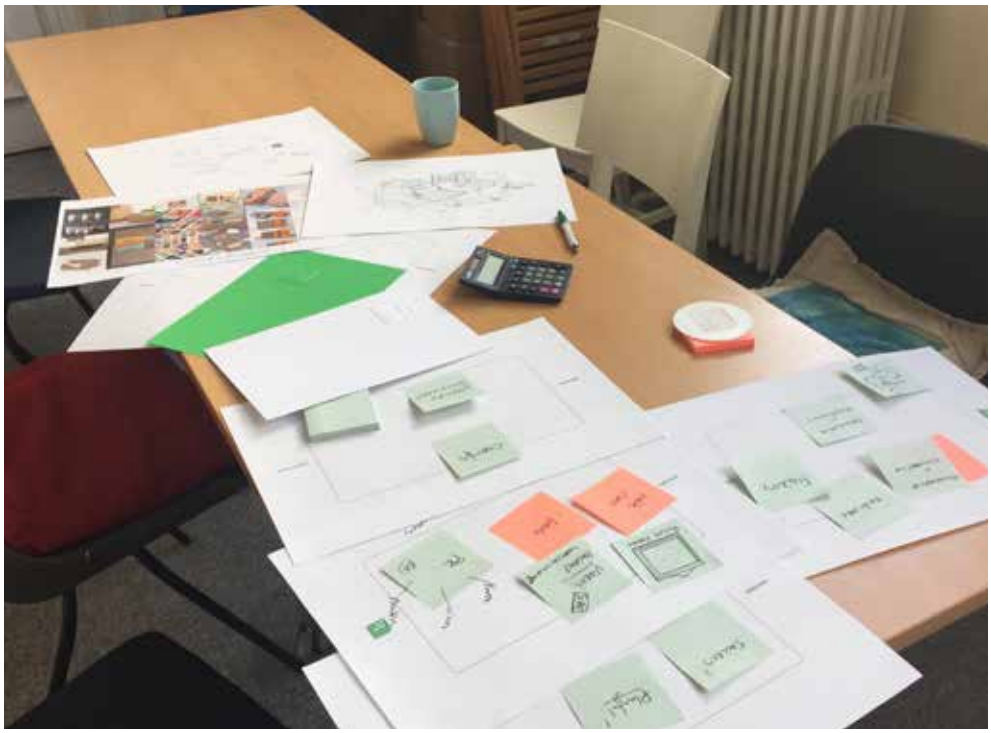


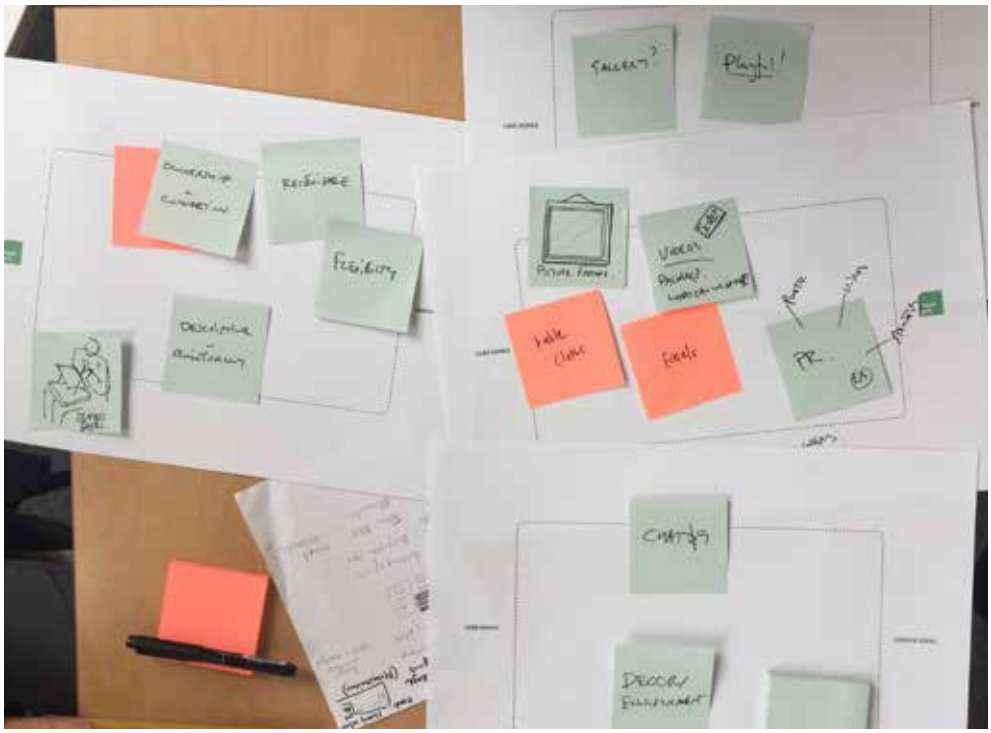
9.1.2 In The Moment

In The Moment Cases were developed during the second study of my PhD, presented in the second study of my thesis (5.0).

This range of sensory artefacts were constructed in poplar plywood, leather, brass, card, PLA, and Jesmonite.

Co-creative Sessions with Equal Arts (5.4.1)




Plants!
Picture frames
Talk
Chairs
PR
Decor
Environment

Participatory Making Workshop, Shipley Gallery, Gateshead (5.4.2)









Alice’s Matchbox Portrait



Matchbox Portraits



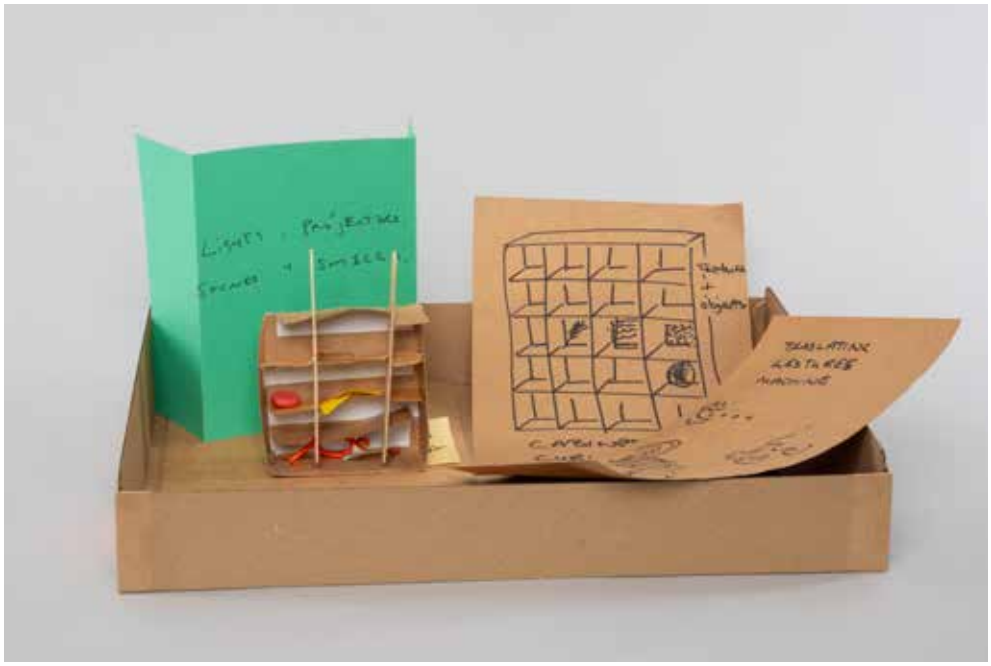
Betty and Poppy's Case



Things to Touch, Questions Ball, Tingshas



Alice and Michael's Case



Cabinet of Curiosities





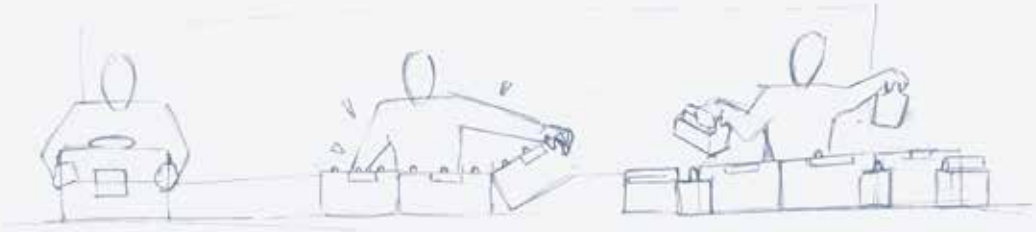
9.1.2.1 Case

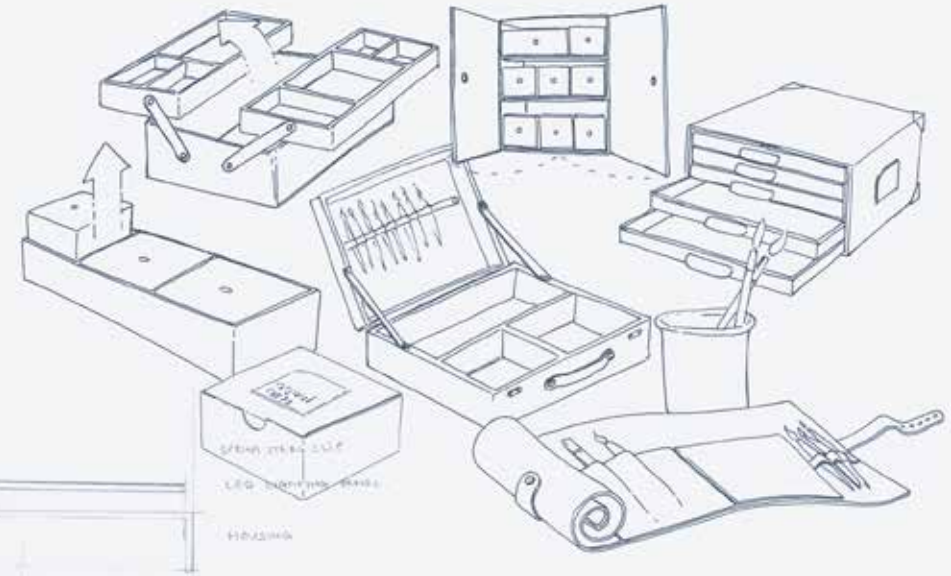
In The Moment Cases (5.4.3) were constructed from poplar, brass, and leather.

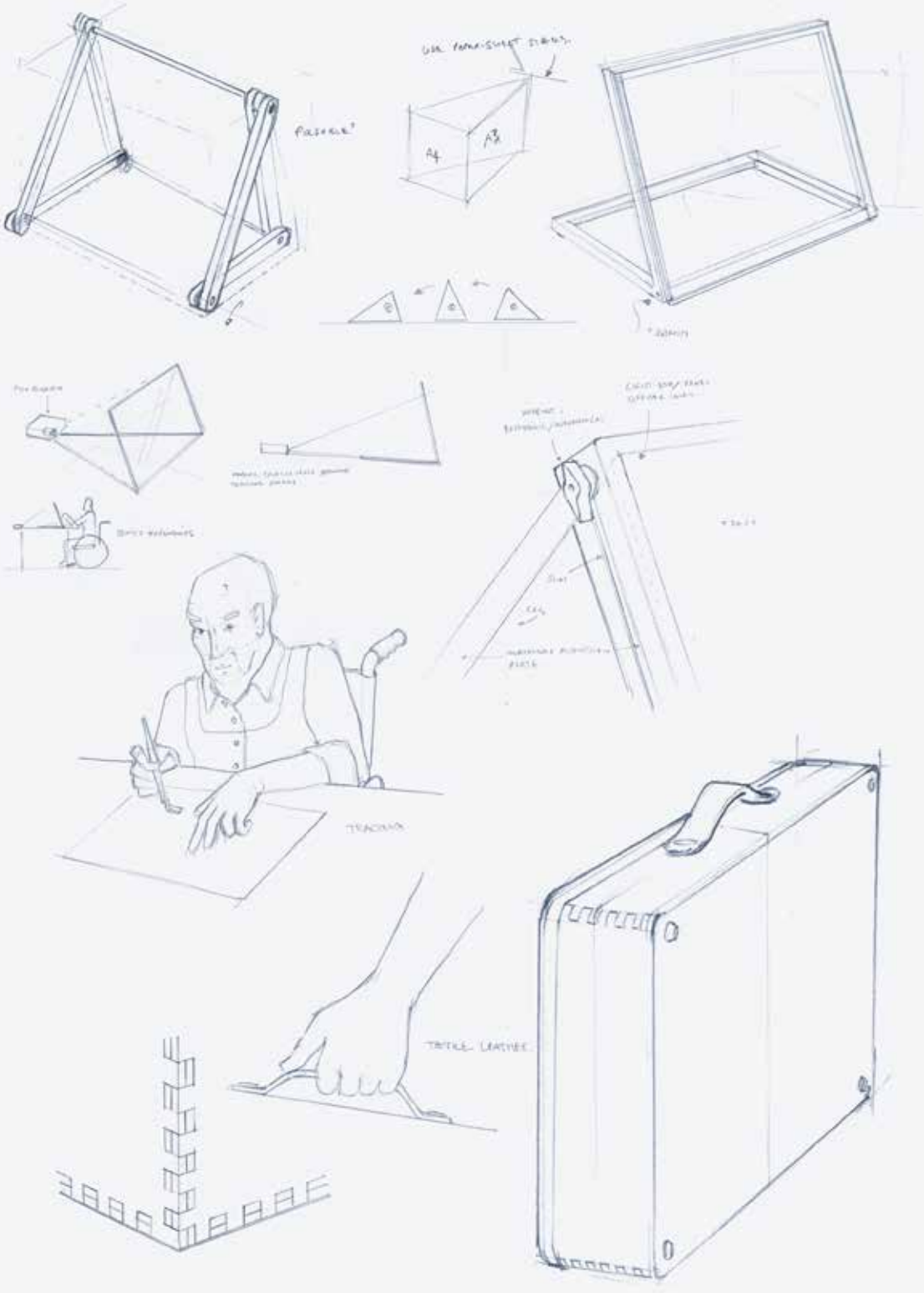
Following sketch exploration I firstly explored modular configurations, where tools would be designed specifically to fit within a grid system using modular sections, or an array of magnetic fixings.

A number of forms were tested in paper and card, before laser-cutting prototypes.

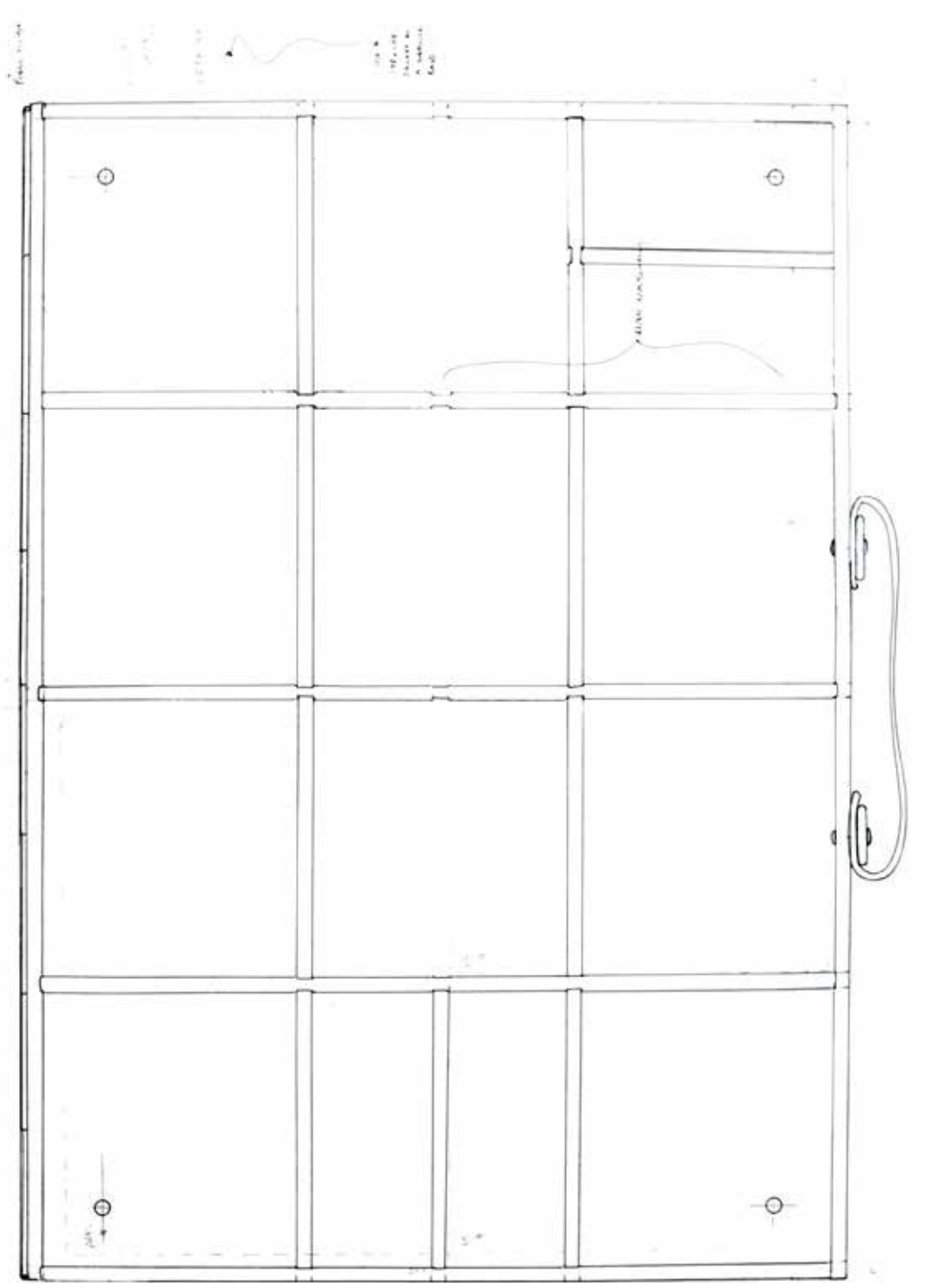
For the finished piece, I chose to move away from modularity, instead building a simple case with a thin lid, designed to house papers and workshop materials as well as being an object of curiosity in workshops.

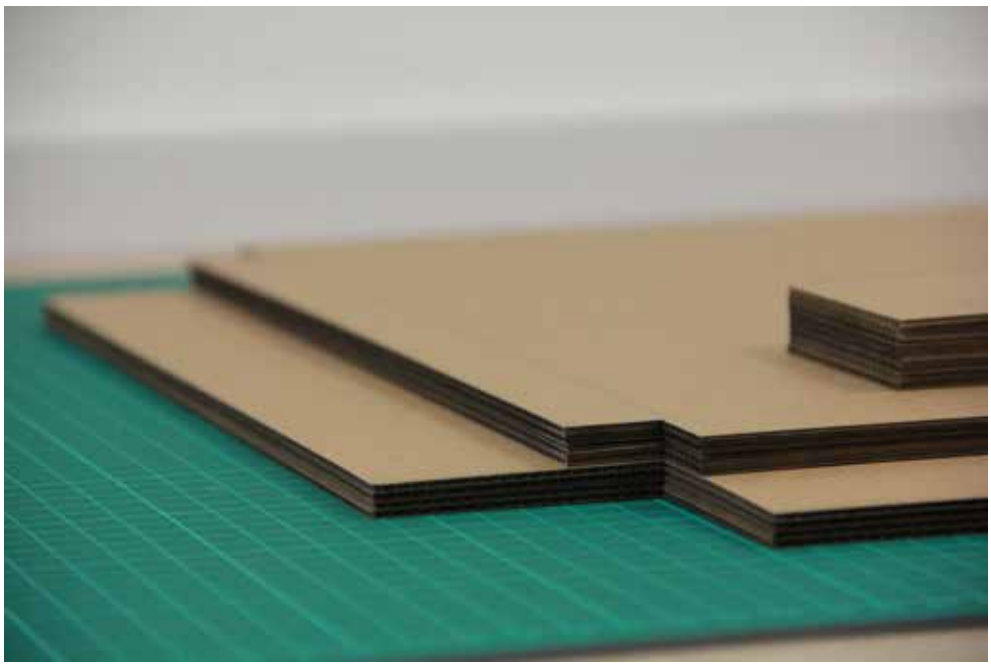





A4
A3

Modular Layout







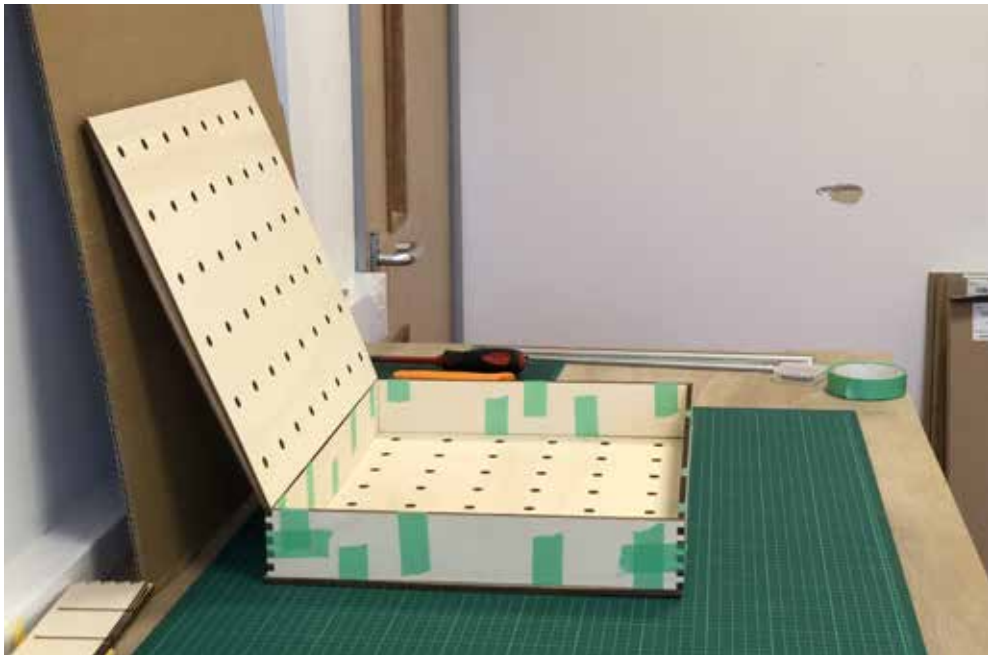
Modular Prototypes



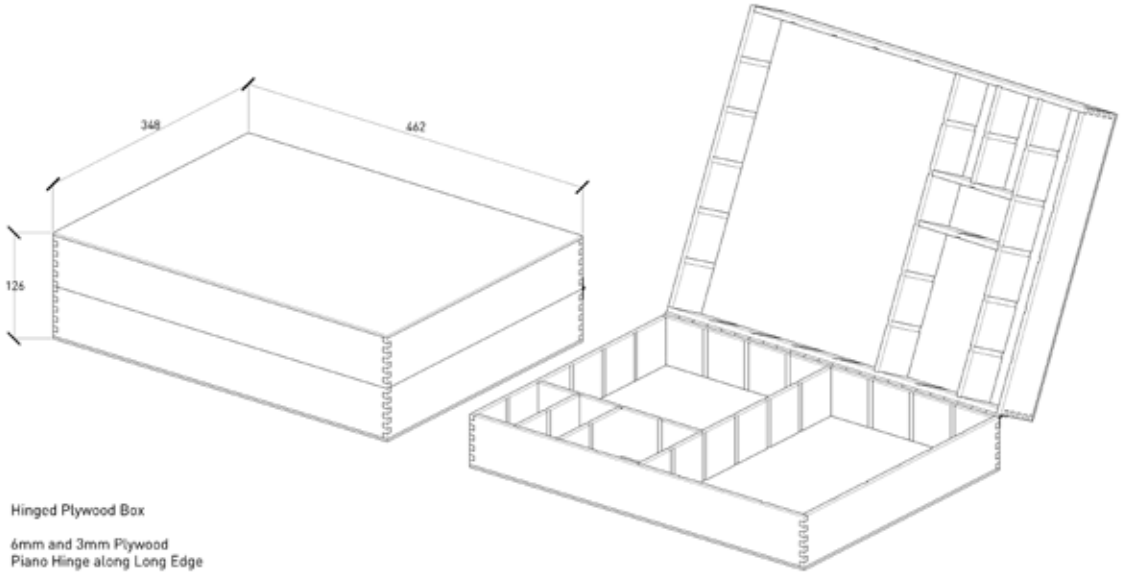


Prototype Configurations





CNC Drawings

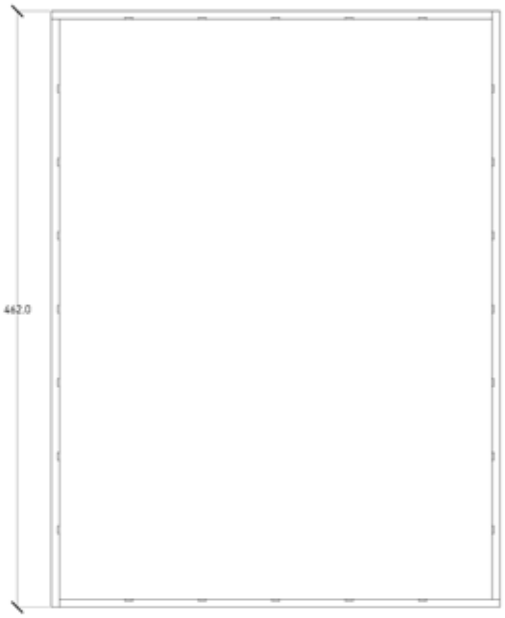


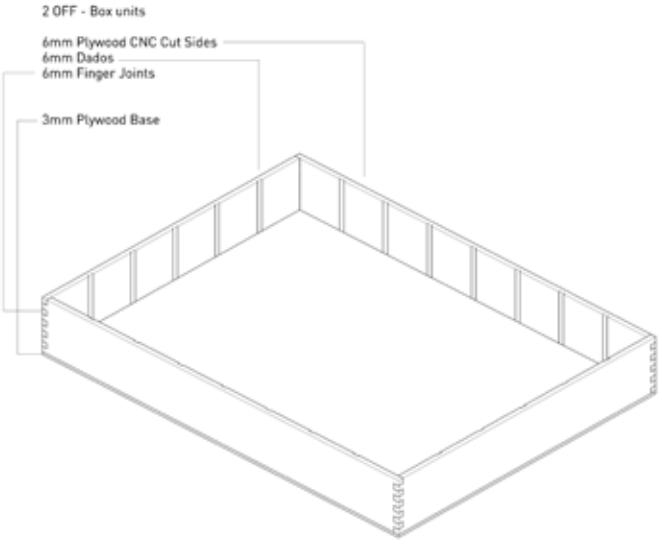
Hinged Plywood Box

6mm and 3mm Plywood
Piano Hinge along Long Edge

Finger Joint Construction
Dados to Recieve 6mm Inserts

N.B. Manufacturing tolerances to be added to measurments

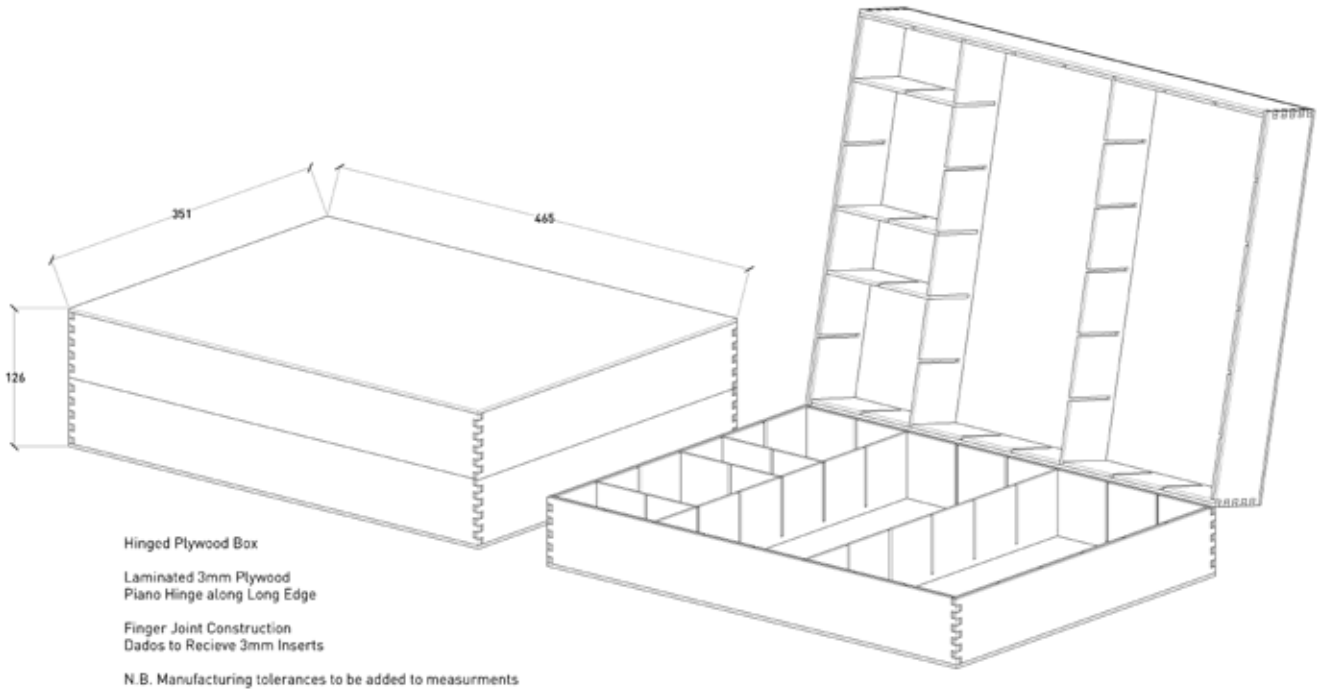








Laser Cut Drawings

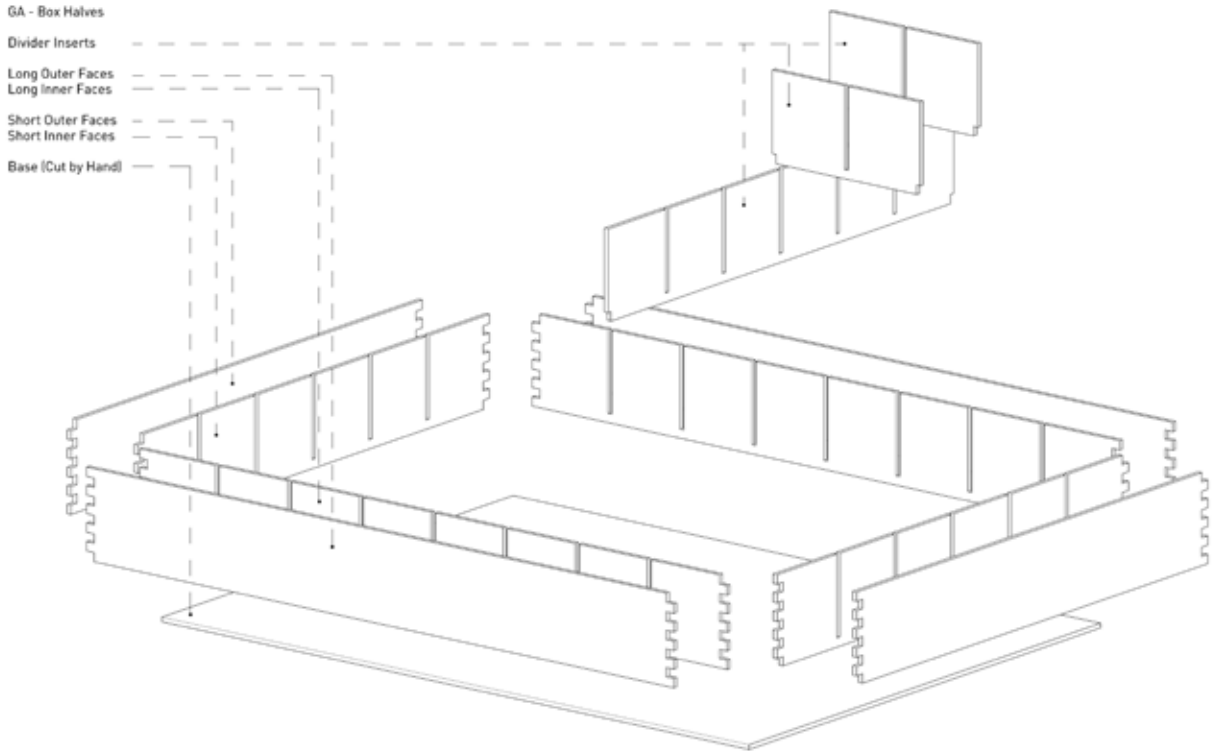


Hinged Plywood Box

Laminated 3mm Plywood
Piano Hinge along Long Edge

Finger Joint Construction
Dados to Recieve 3mm Inserts

N.B. Manufacturing tolerances to be added to measurments





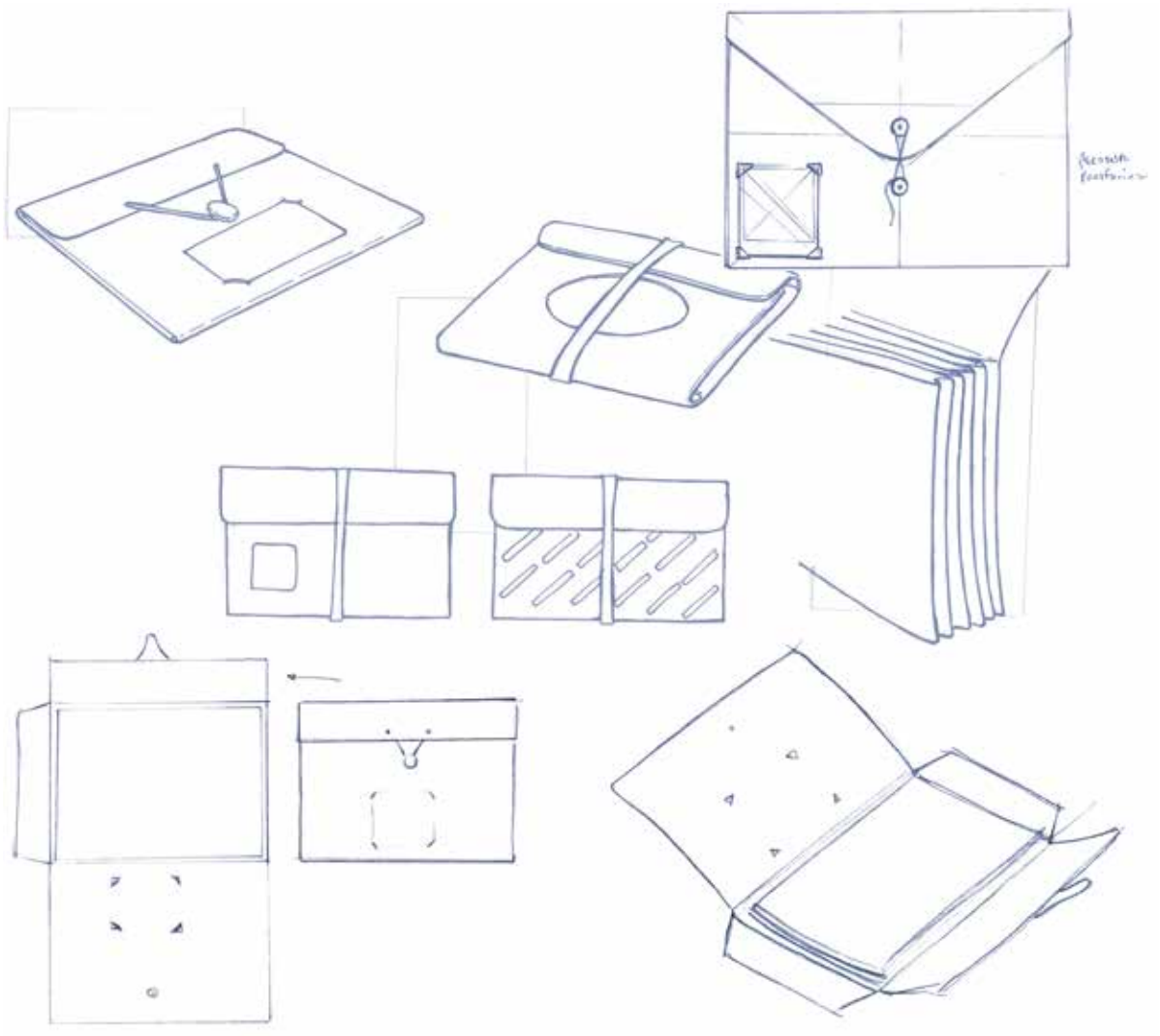


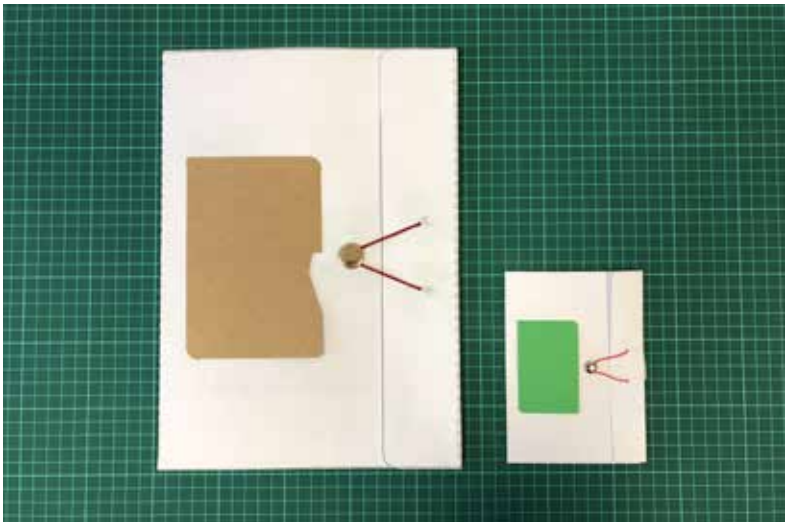


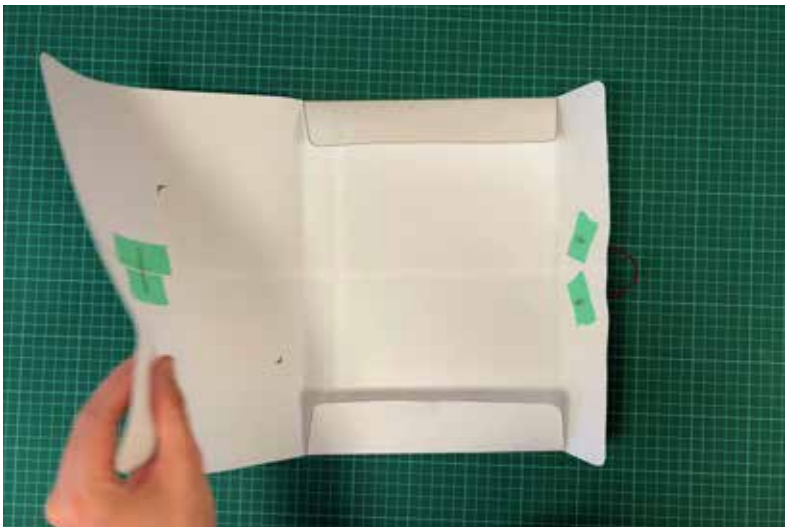
9.1.2.2 Portfolios

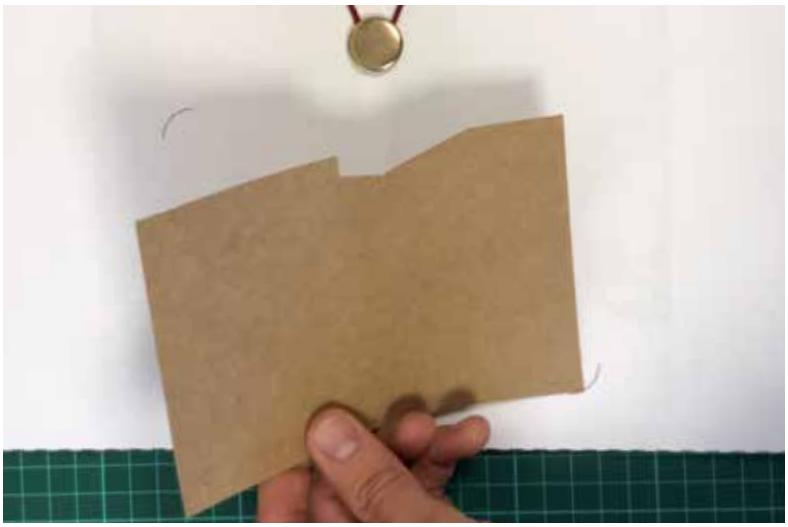
Portfolios (5.4.3) were constructed from kraft card with brass and elastic details to invite fiddling and introduce some colour.

A 6x4” photograph can be slotted into the front of each portfolio to identify residents’ work, or a given project.









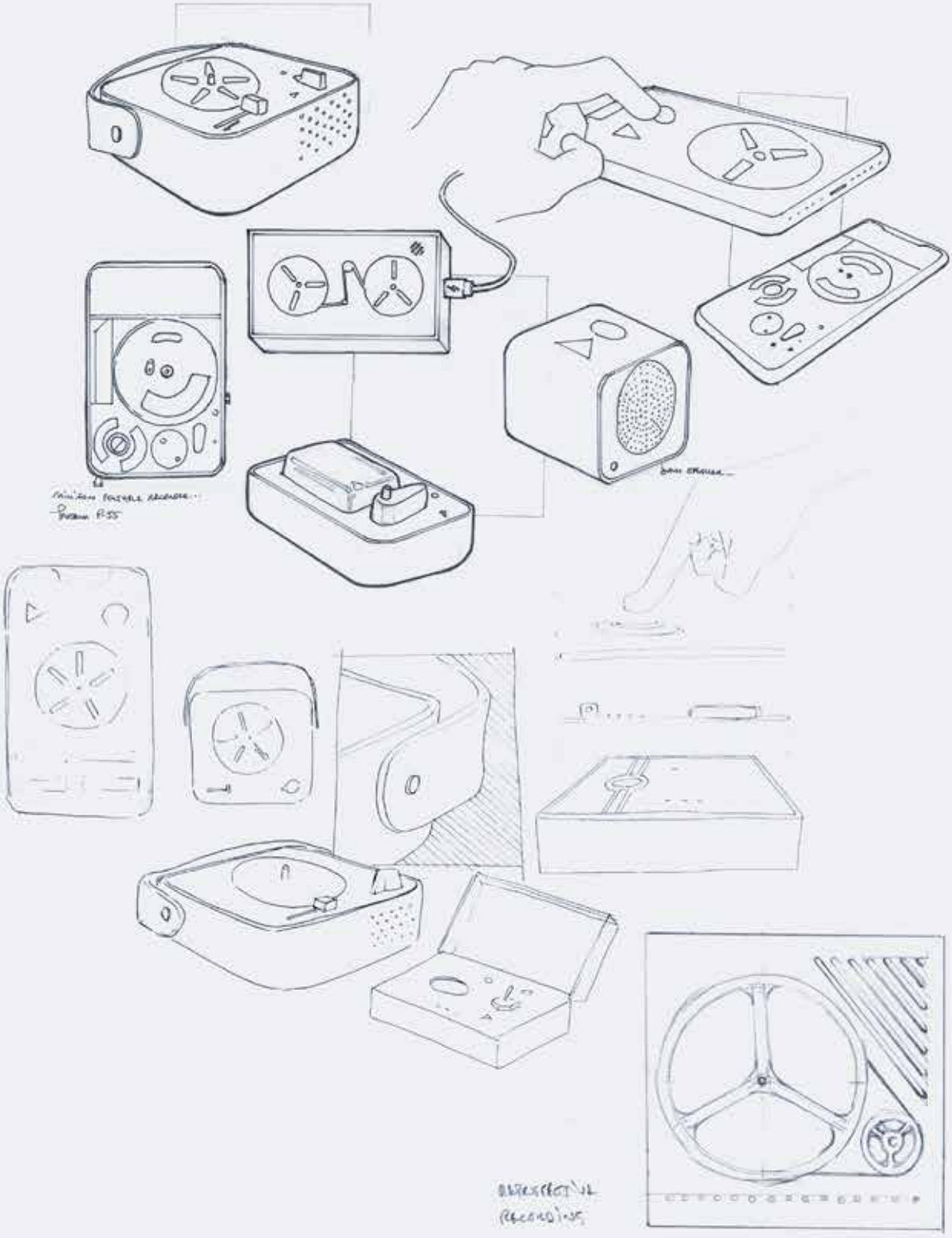


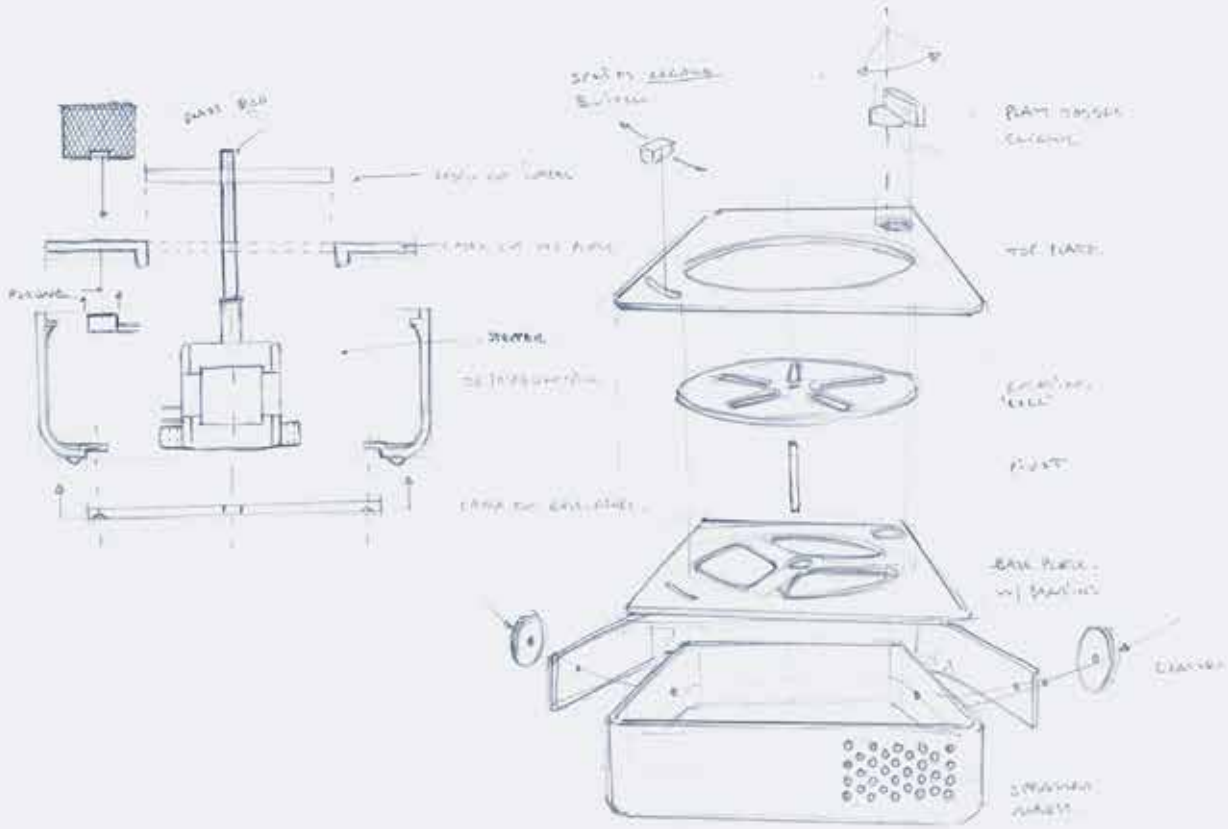


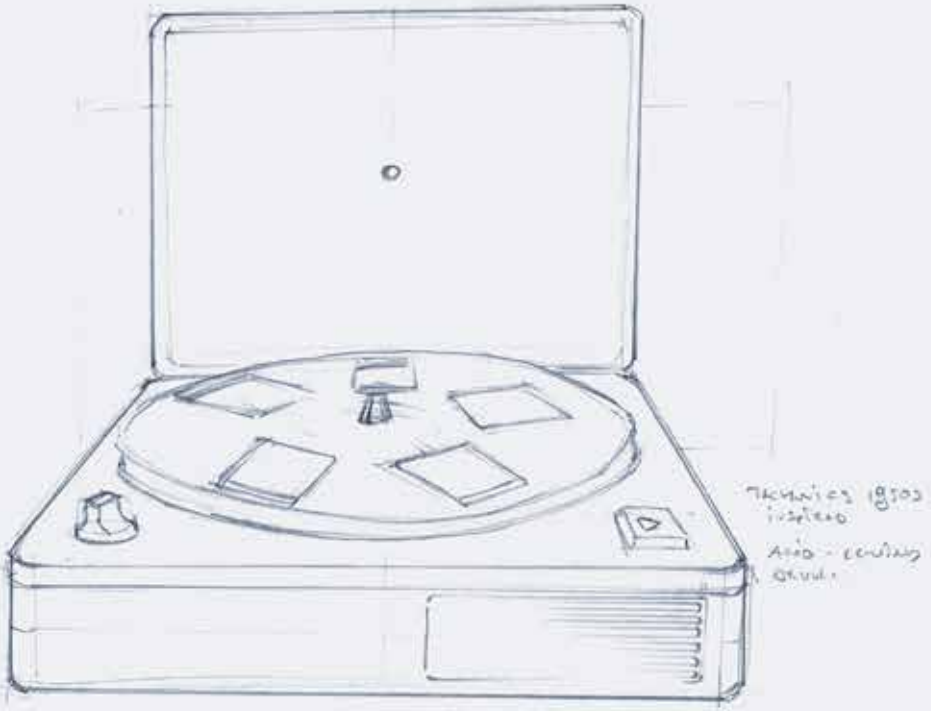
9.1.2.3 Recorder

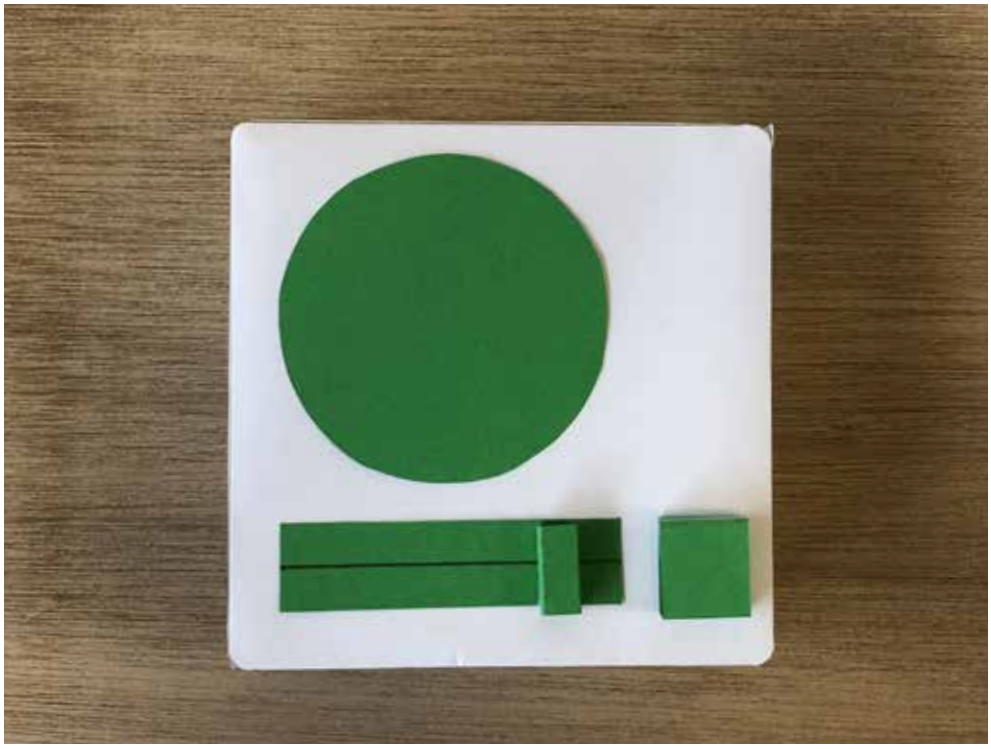
The ‘Retrospective Recorder’ (5.4.3) was prototyped using paper and card to establish scale. The interaction was wire-framed in four options presented to Equal Arts, exploring different lives of interaction and capability.

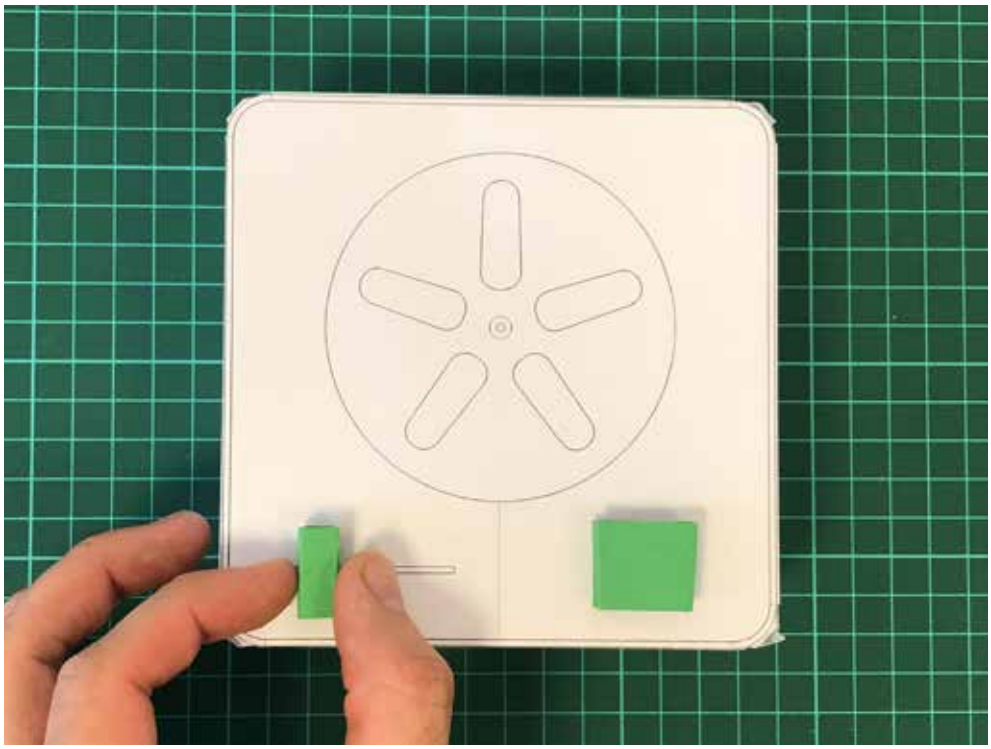
I created a video prototype to illustrate the chosen interaction before constructing the final prototype from PLA, brass, leather and blackened aluminium.

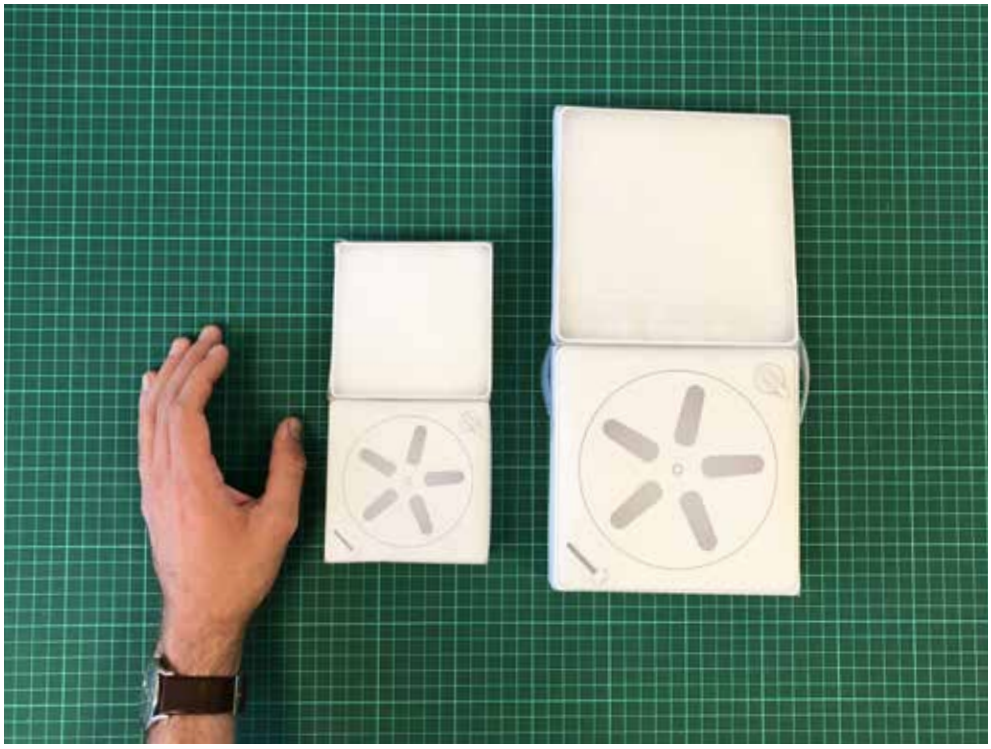


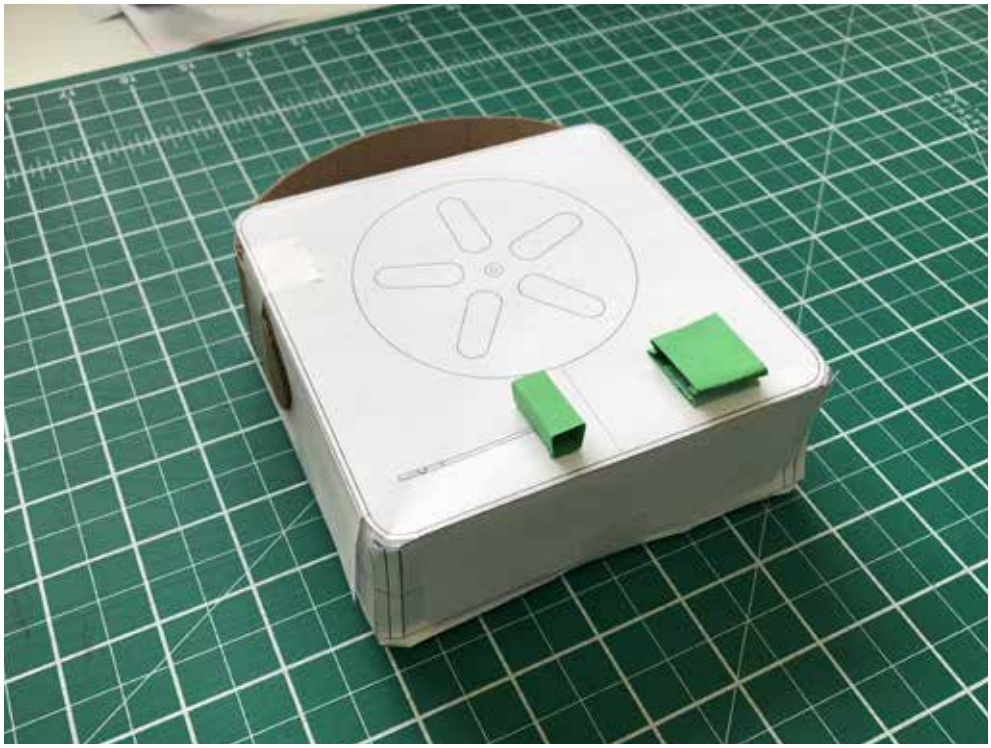






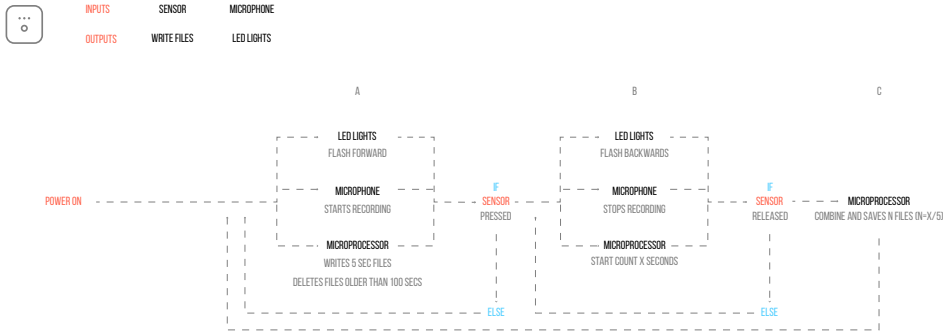




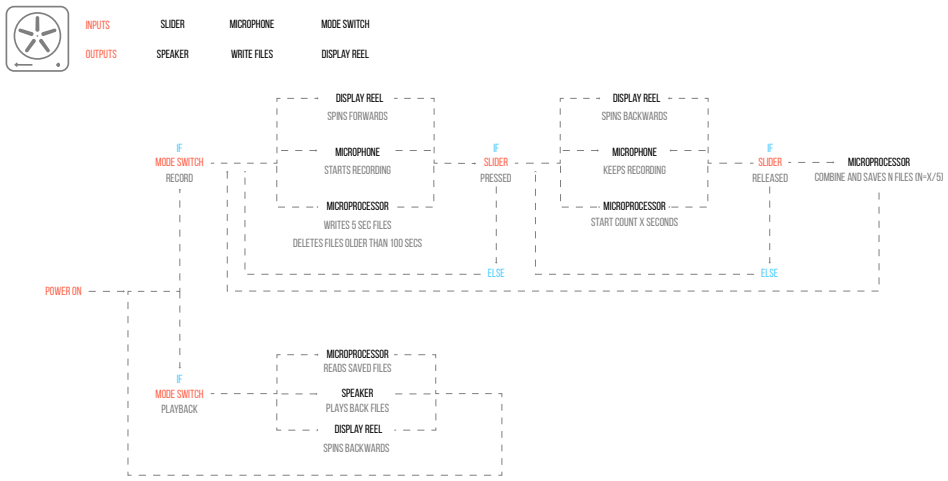


Wire-frame Options

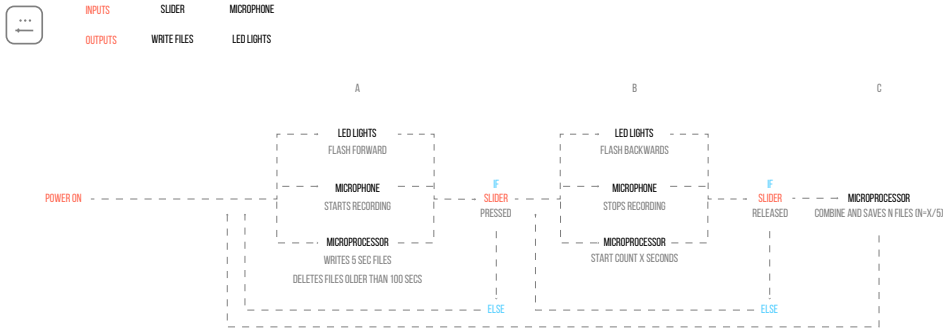
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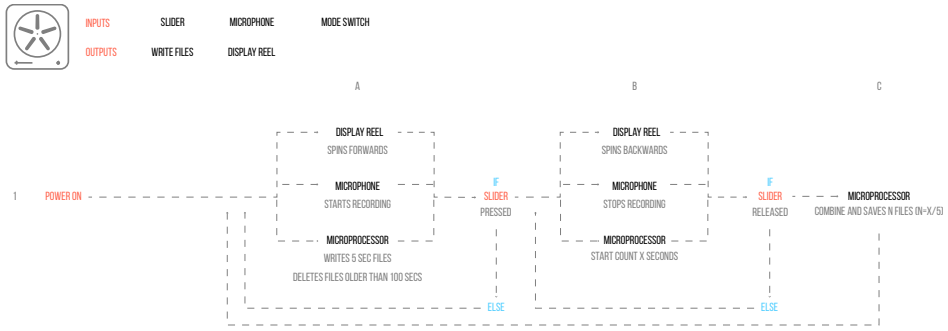
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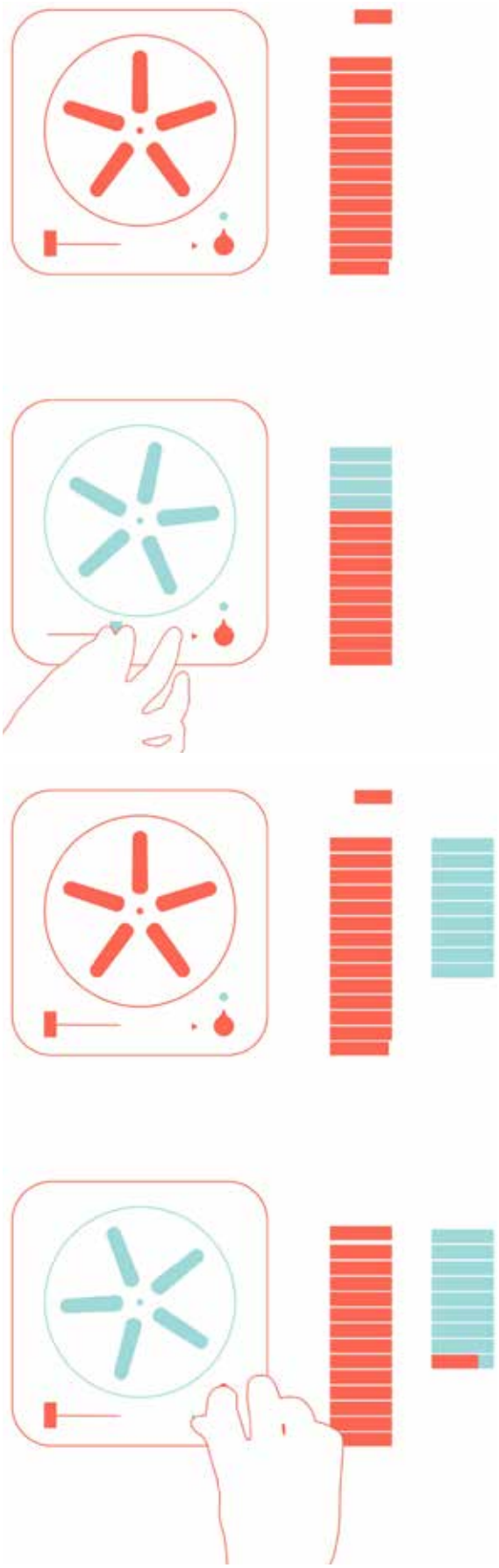
3



4



Video Prototype Frames





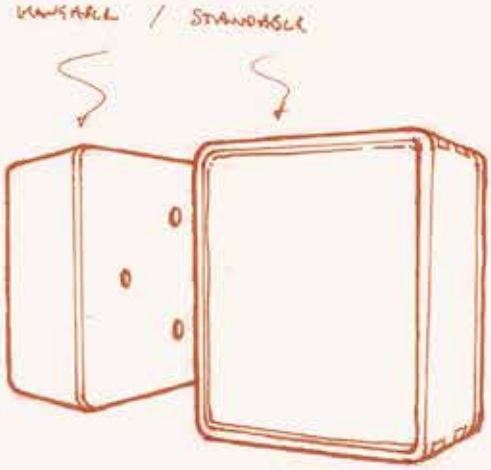


9.1.2.4 Texture Blocks

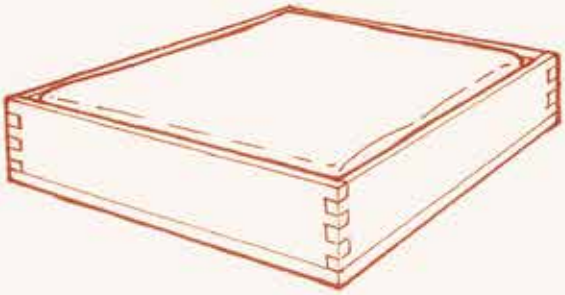
Texture Blocks (5.4.3) were first explored as a kit-of-parts in poplar plywood and air-drying clay. These pieces could be used by artists and residents to capture textures through a simple interactions.

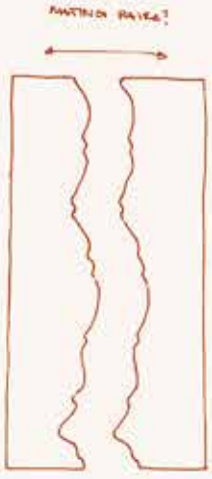
Following these I explored higher-fidelity manufactured pieces which were more sculptural and ambiguous in form. These second pieces were cast into pairing moulds, affording clicking the pieces together into satisfying blocks.

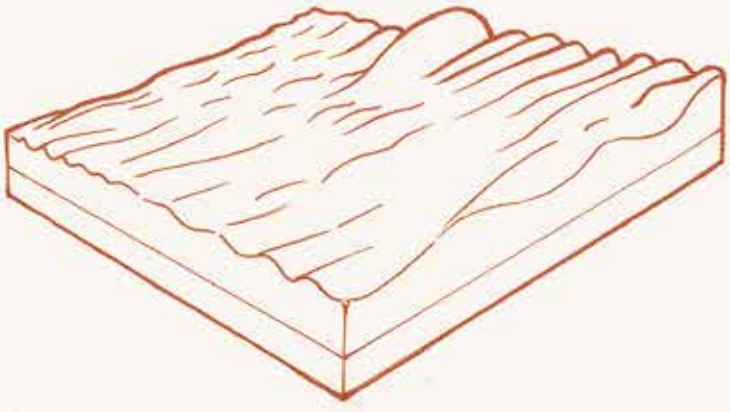
Following material exploration the texture blocks were cast in sealed Jesmonite in four designs.

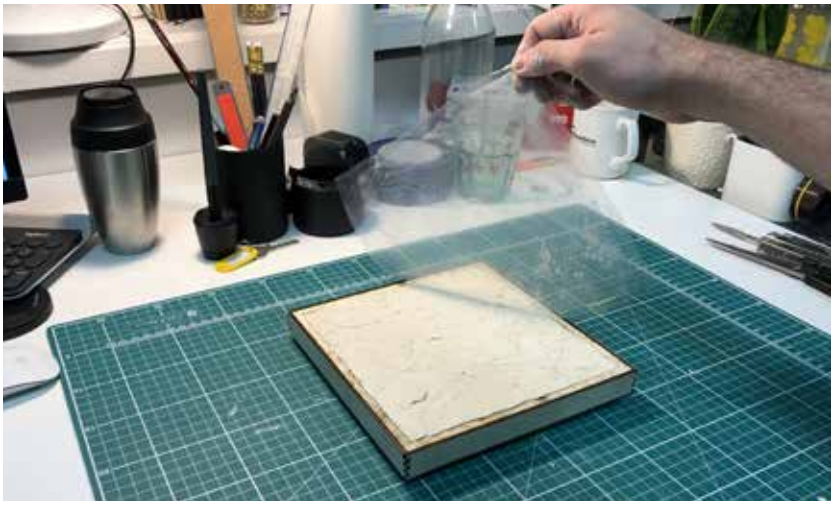



PEEL
PRESS...
PUSH!













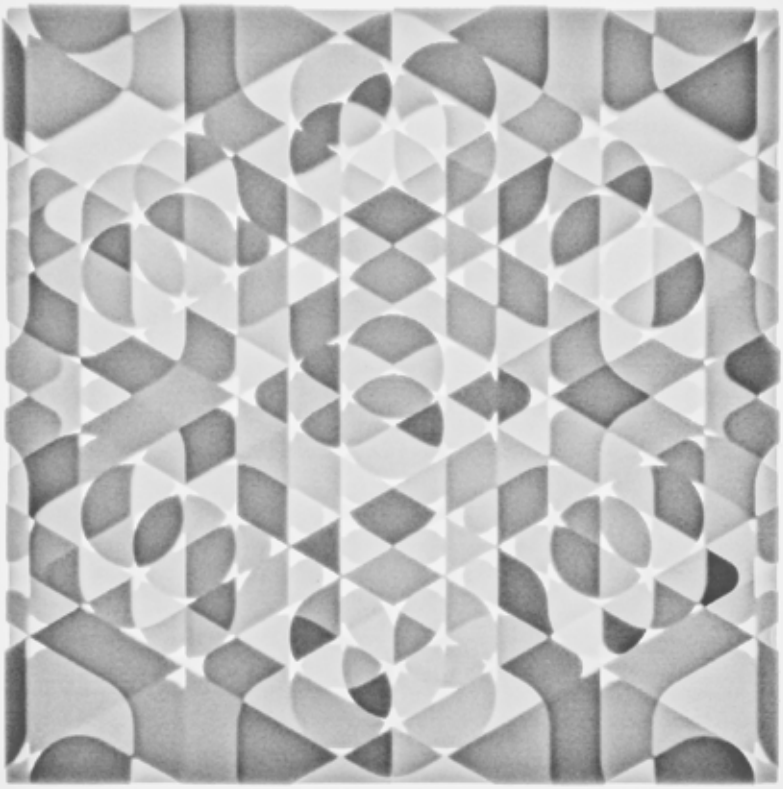


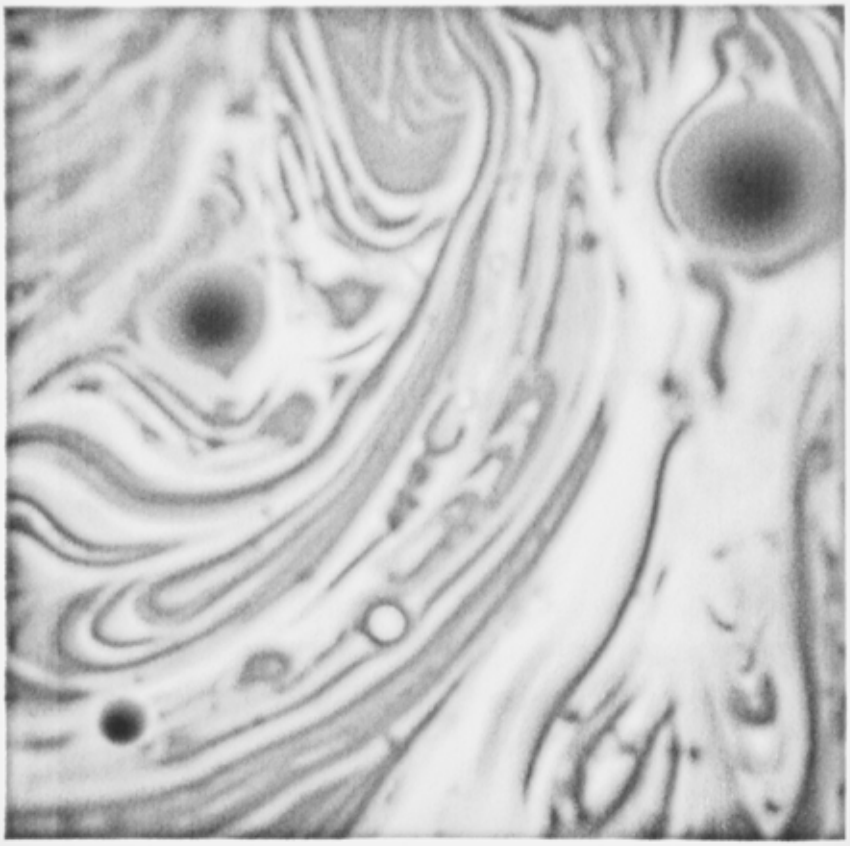


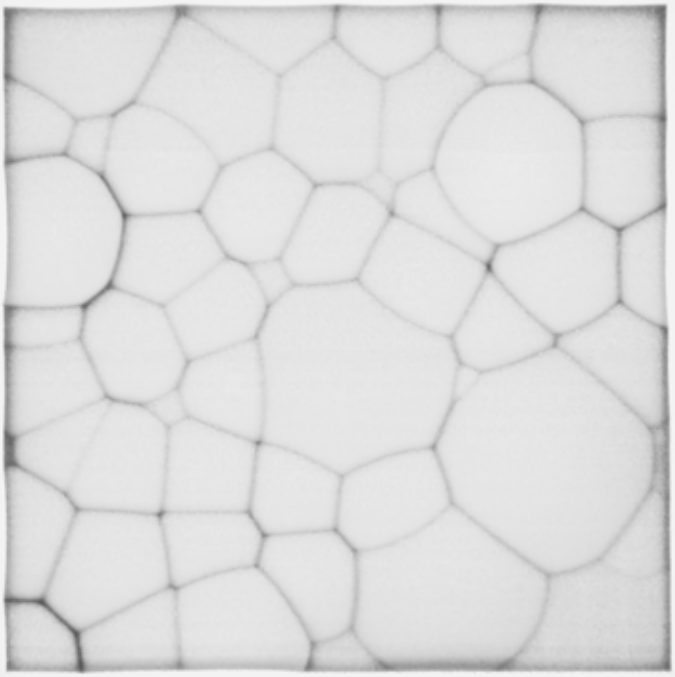


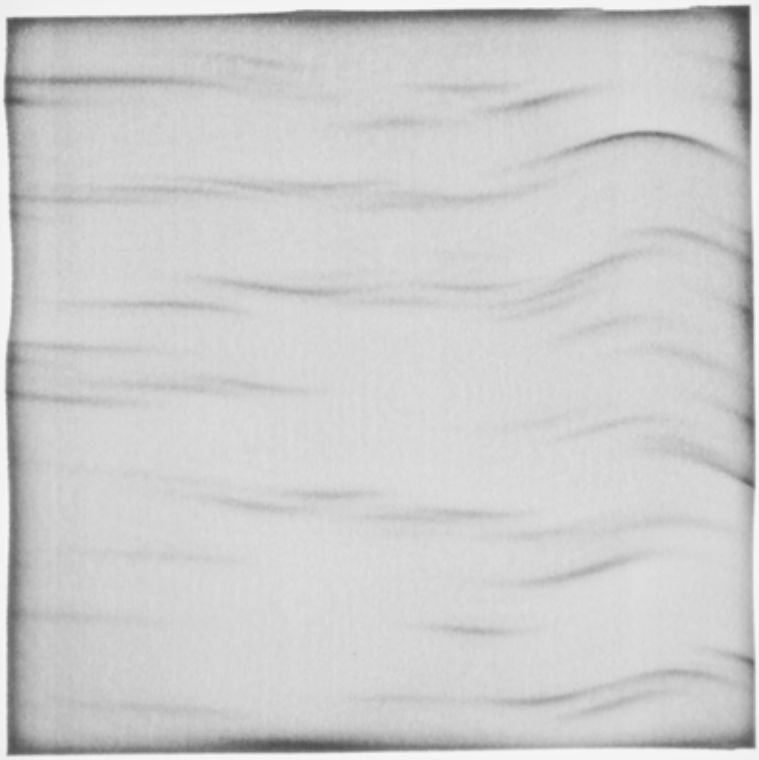



STAFF
STAFF
STAFF
STAFF



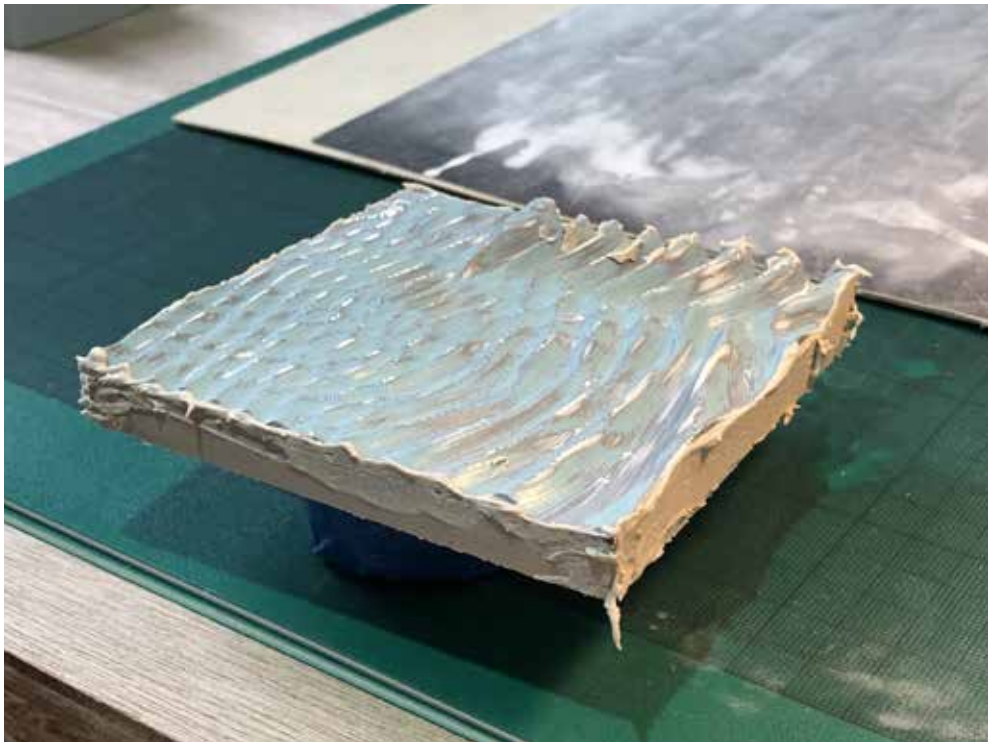




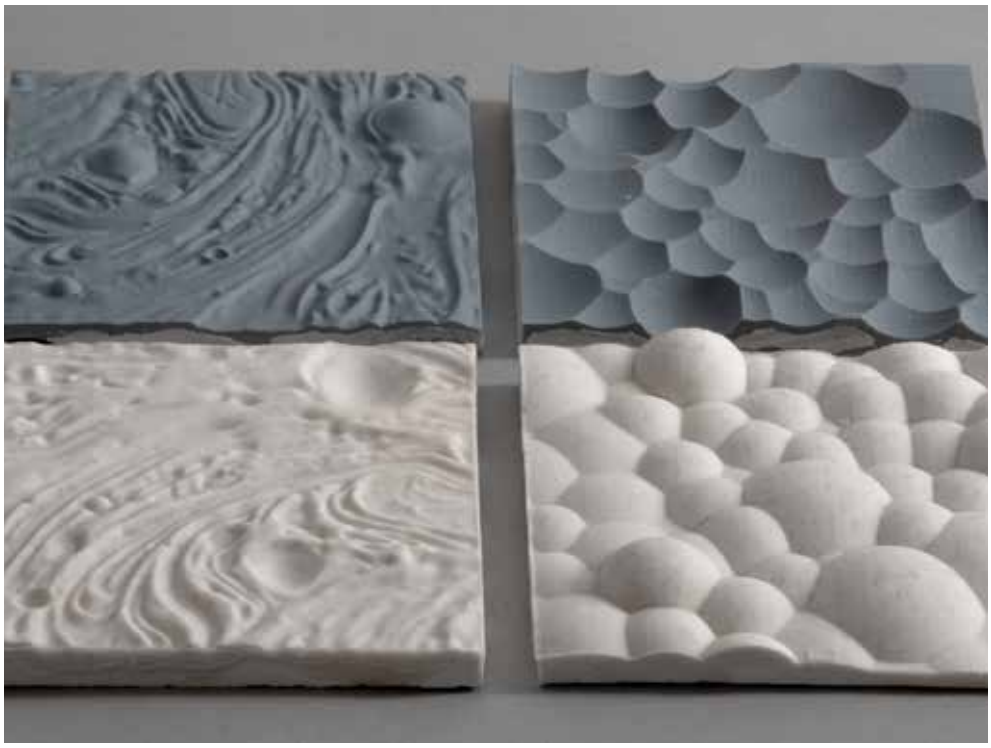


Casting



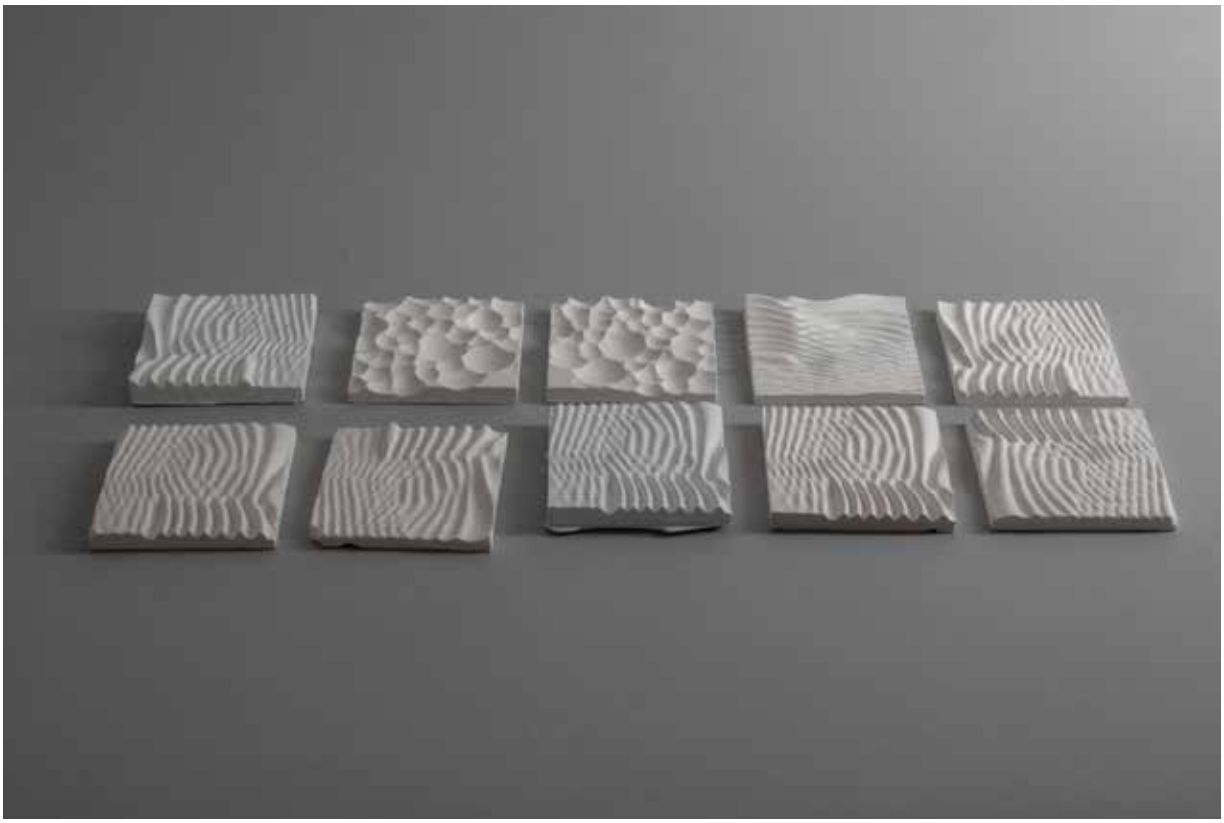


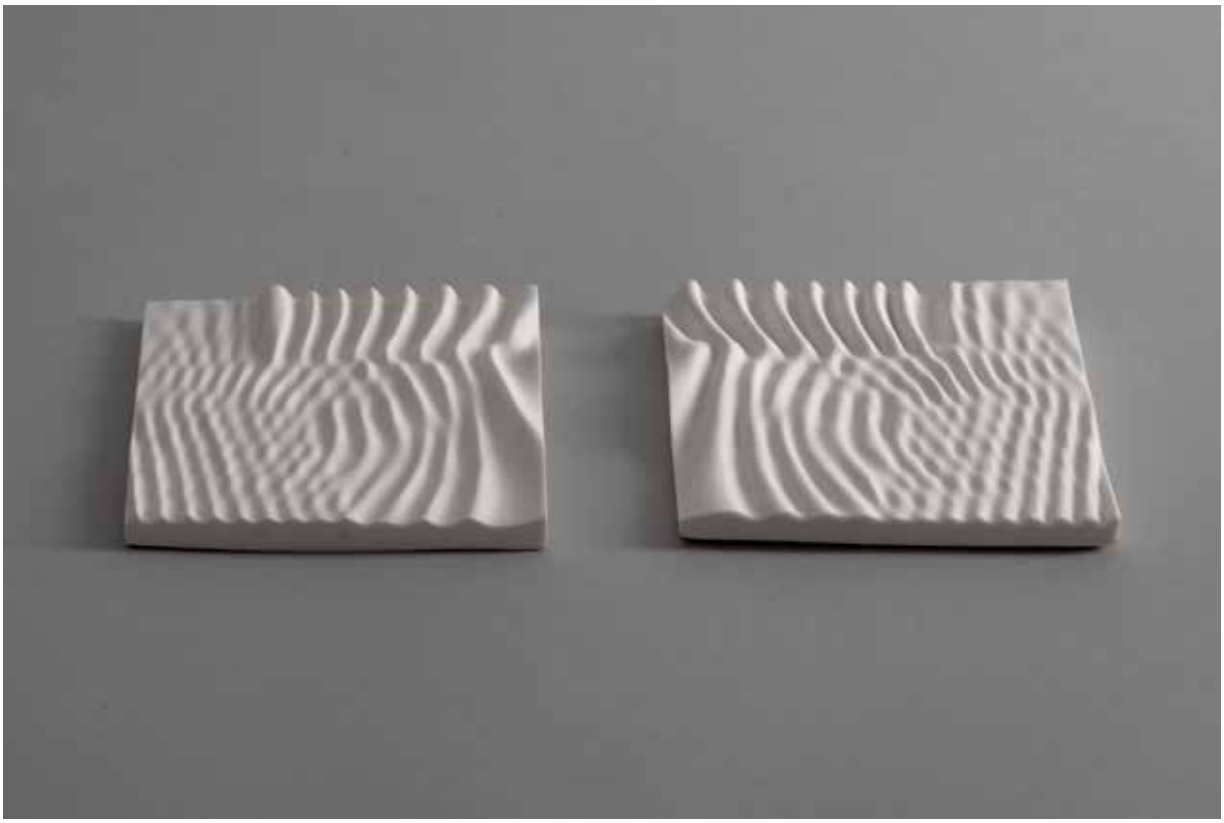
Material Testing





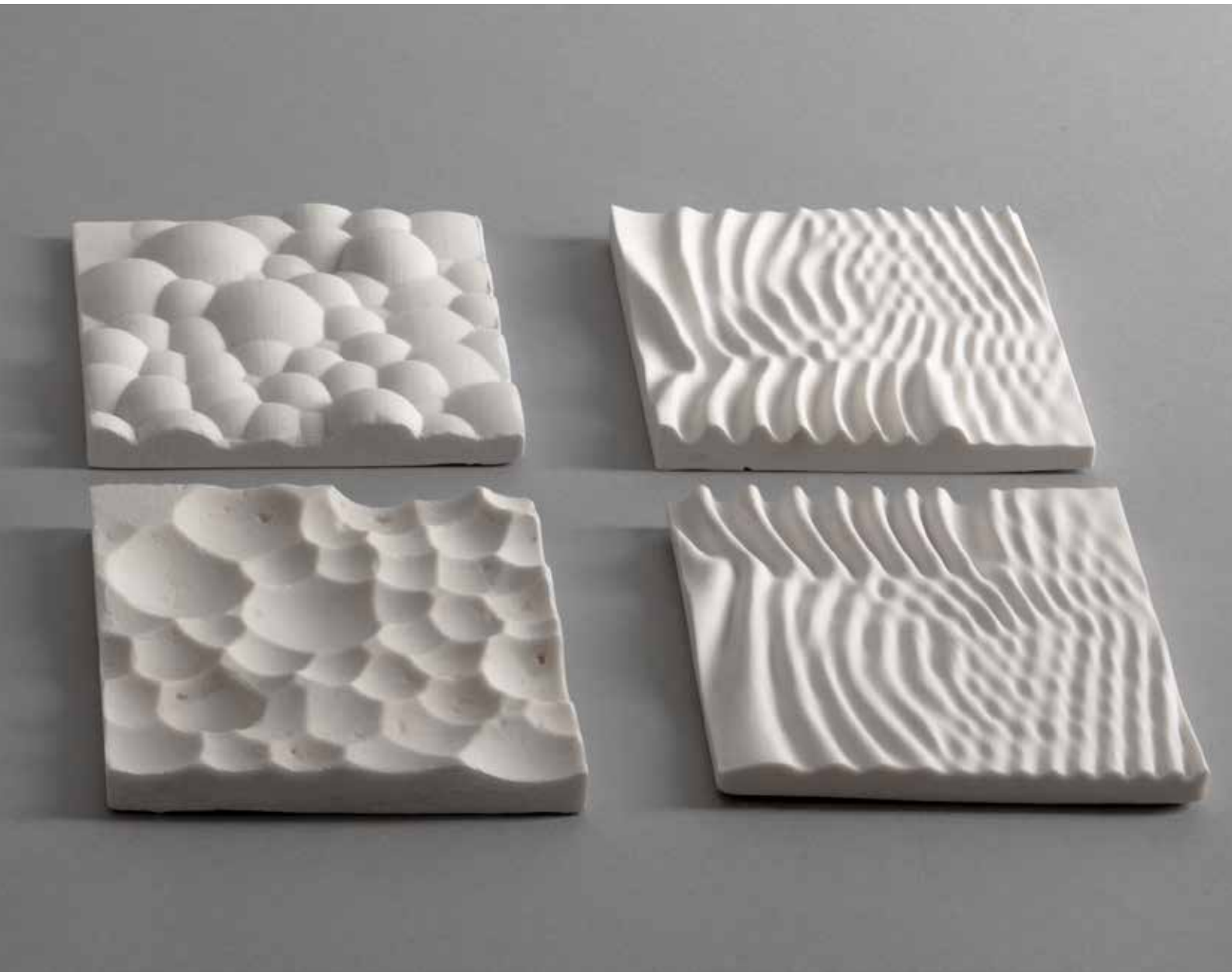










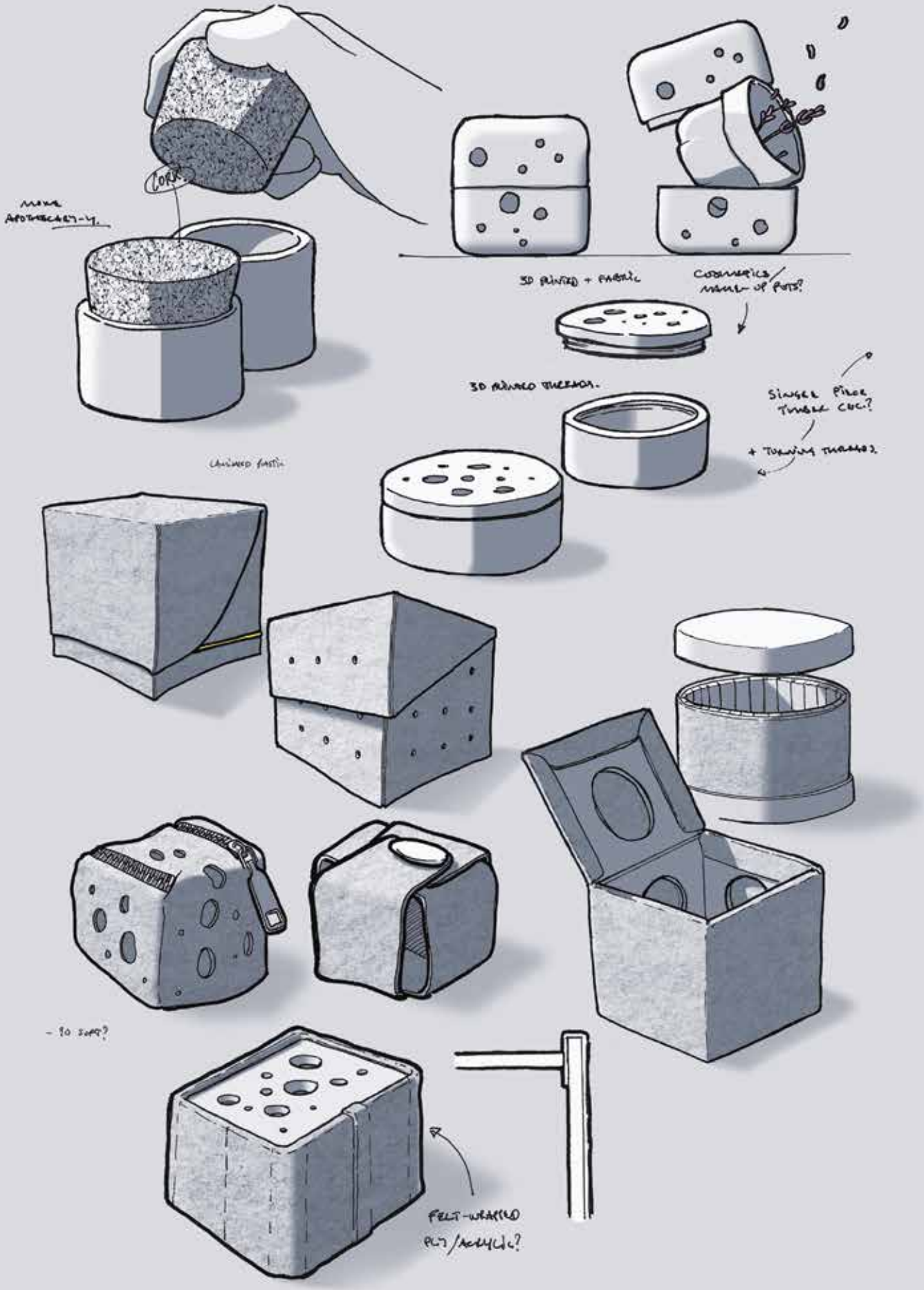


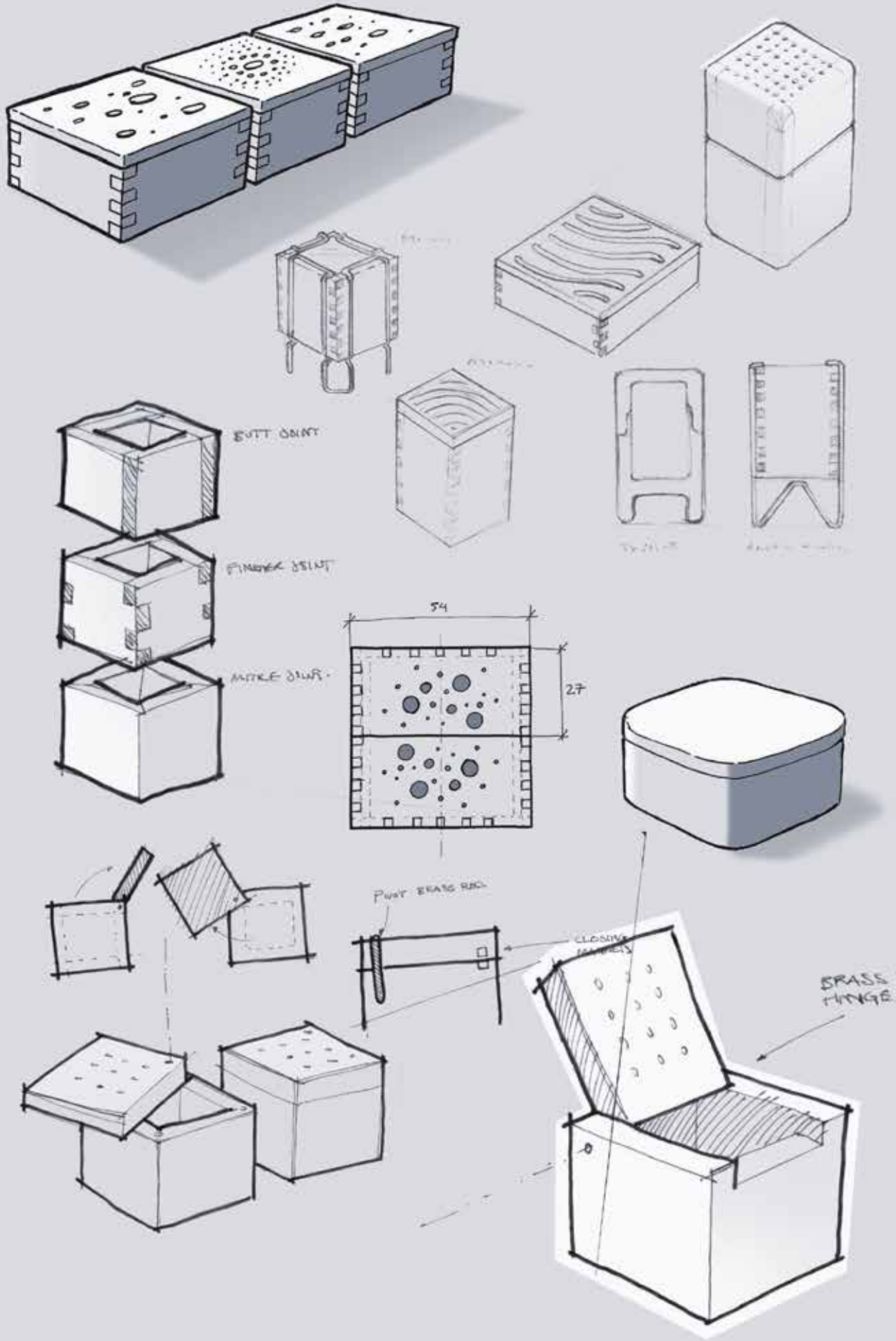


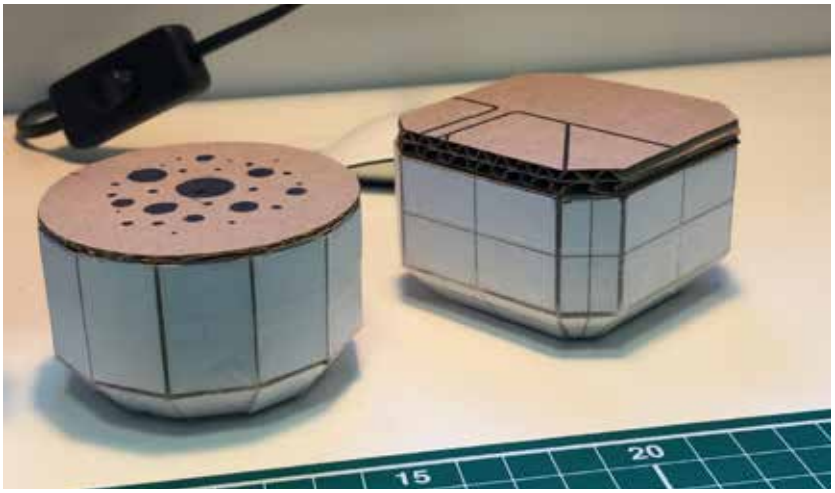
9.1.2.5 Smell Boxes

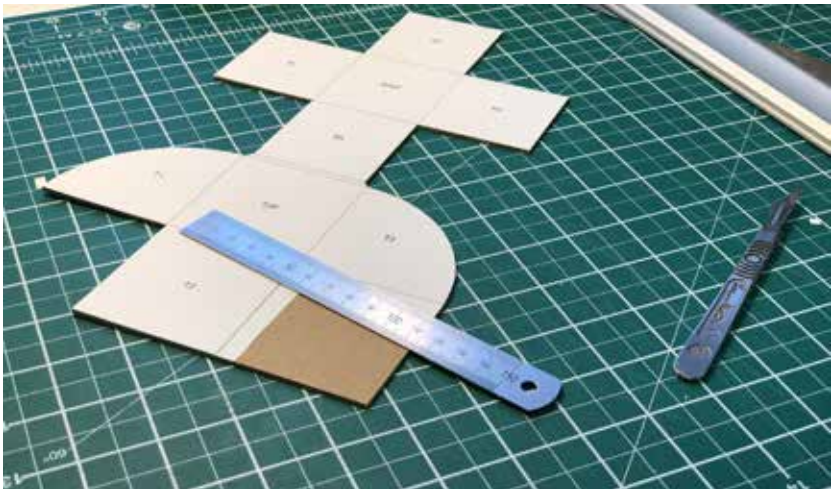
Smell Boxes (5.4.3) were designed to be easily held and to allow Artists to introduce smells into Creative Ageing workshops without getting particles or oils onto residents hands.

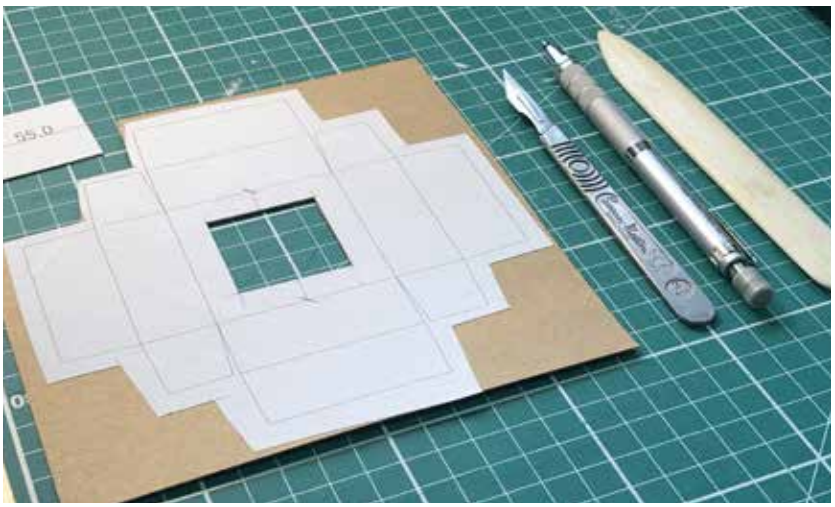
A number of small forms were tested in card, PLA, felt, and acrylic. Finished prototypes are made from poplar and brass.

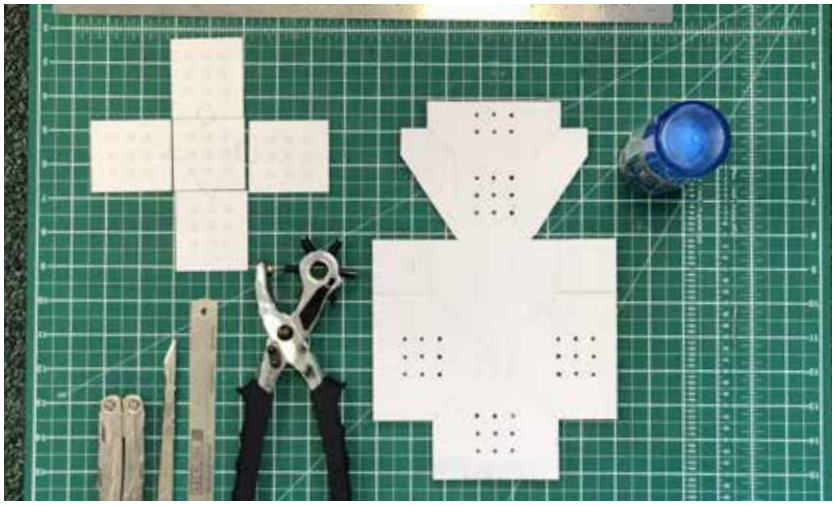

CORK
3D PRINTED + FABRIC
3D PRINTED THERMOS.
SINGER PILOT TUBULAR CHIC?
+ TURNING THREADS.
FELT-WRAPPED PLY/ACRYLIC?

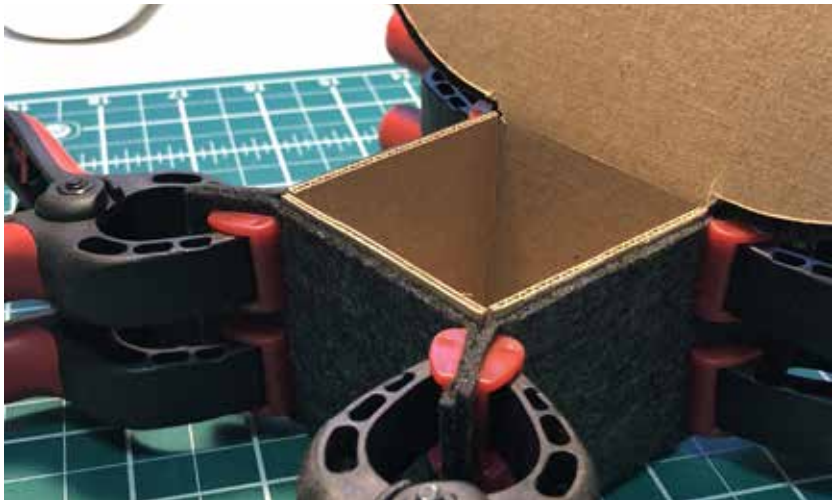

BUTT JOINT
54
27
BRASS ROD
HINGE.


15
20

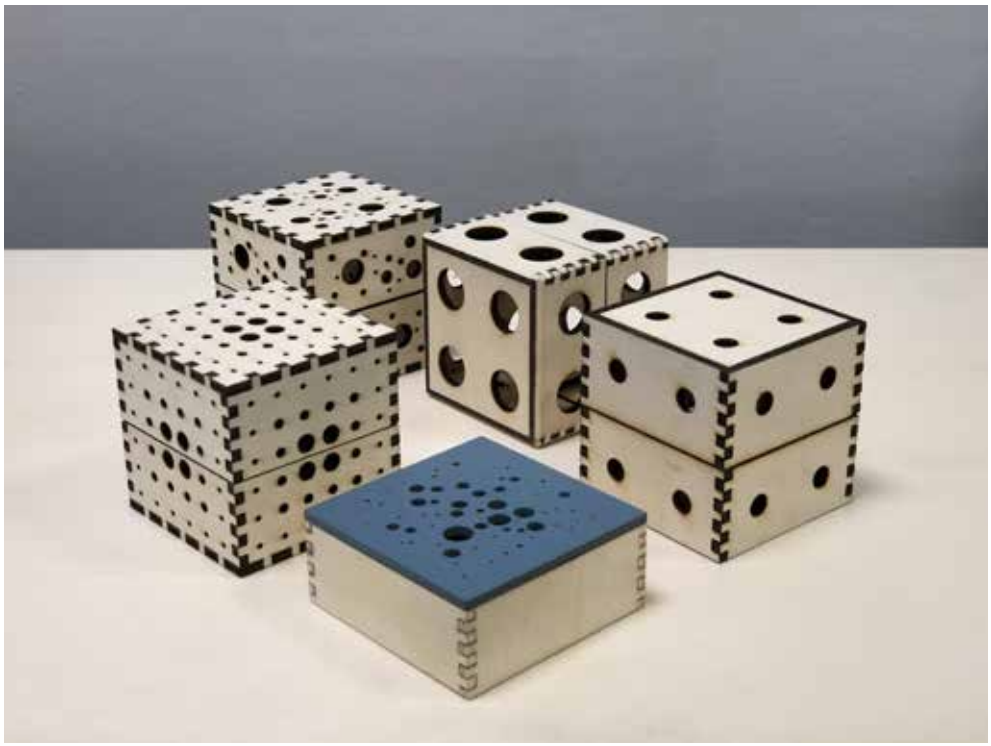






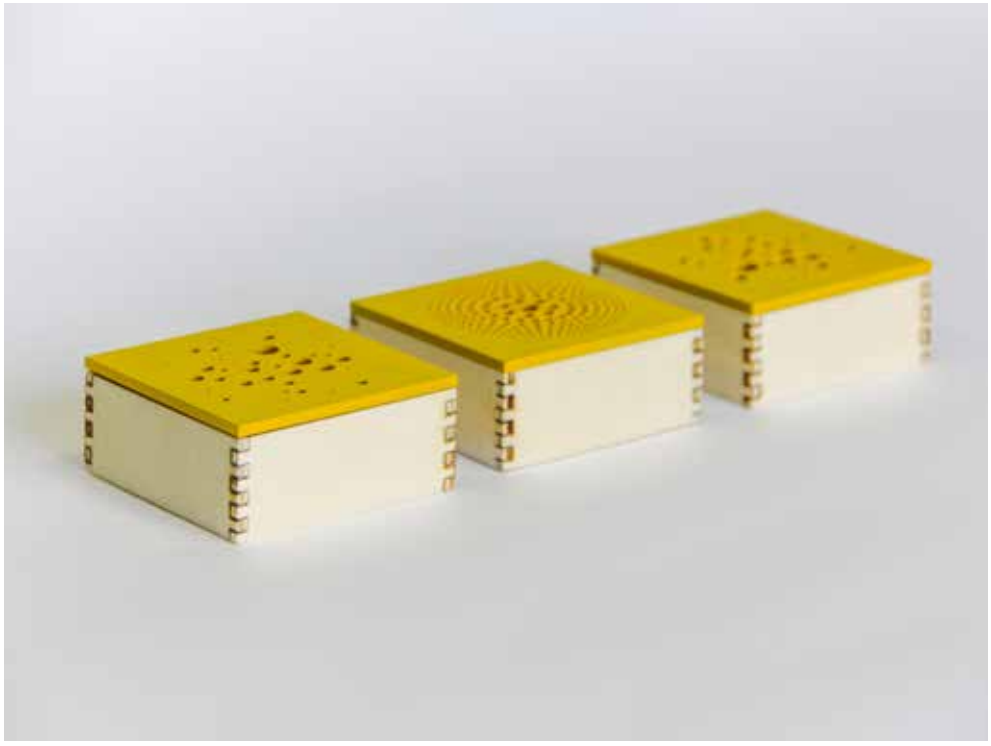
















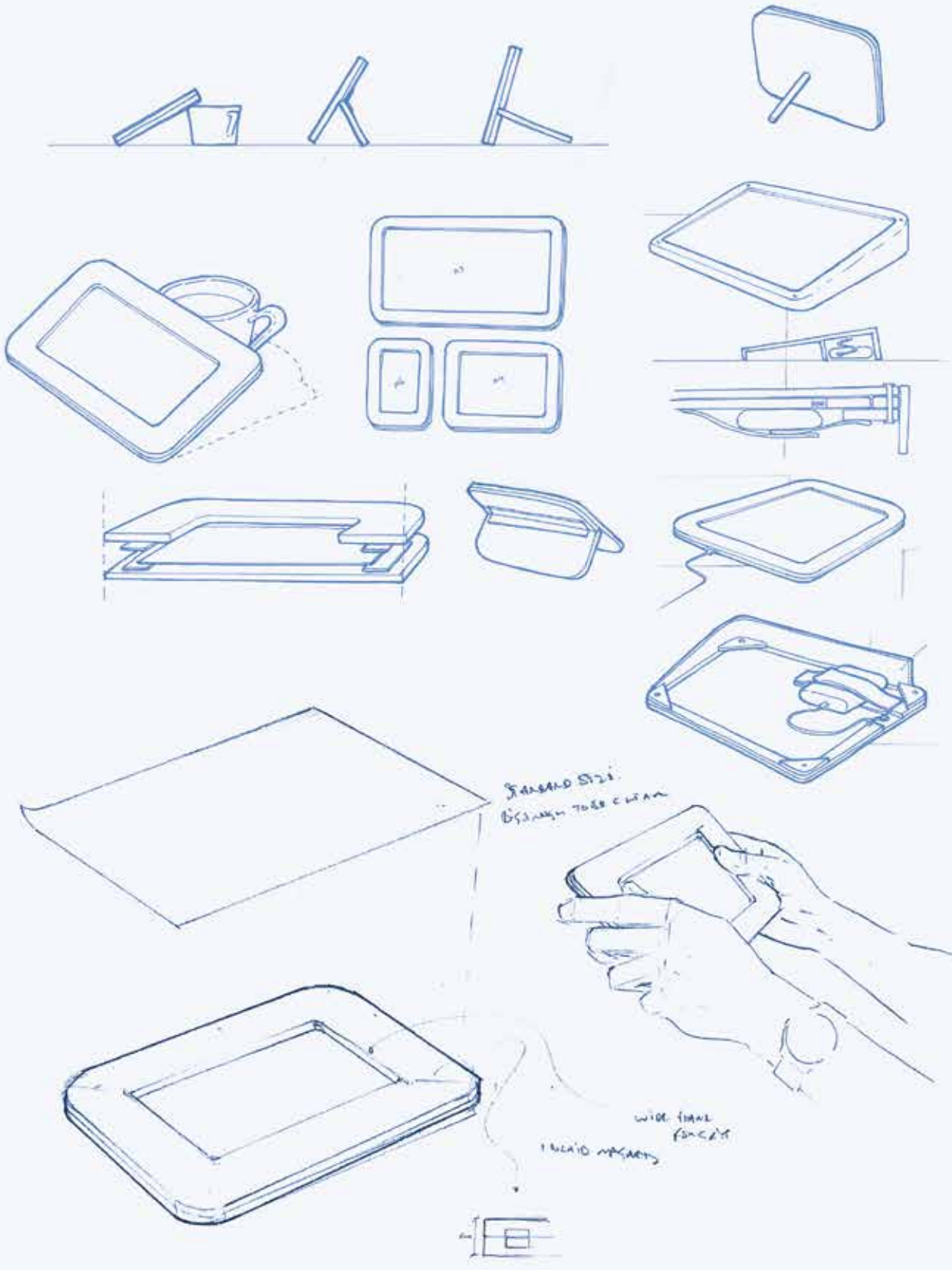




9.1.2.6 Picture Frames

Picture Frames (5.4.3) built to hold A5, A4, and A3 printed pictures were prototyped and tested in cardboard and poplar plywood.

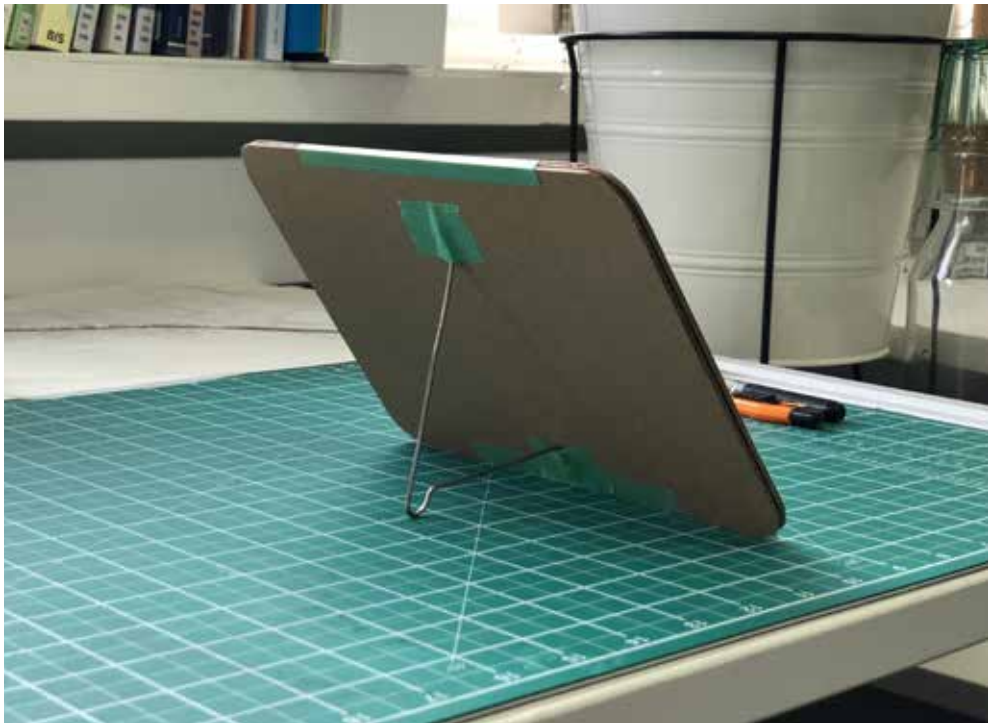
Magnets were embedded to allow the frames to be snapped together and re-used, while leaving the mechanism visible for residents to explore.



Mechanism Testing

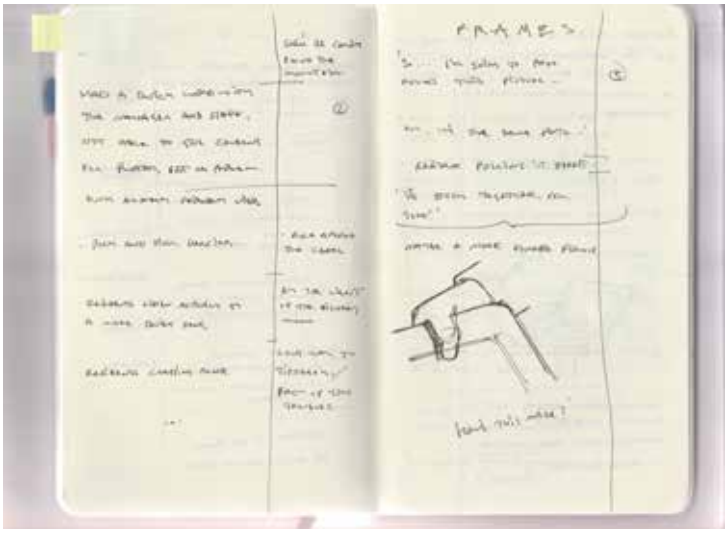








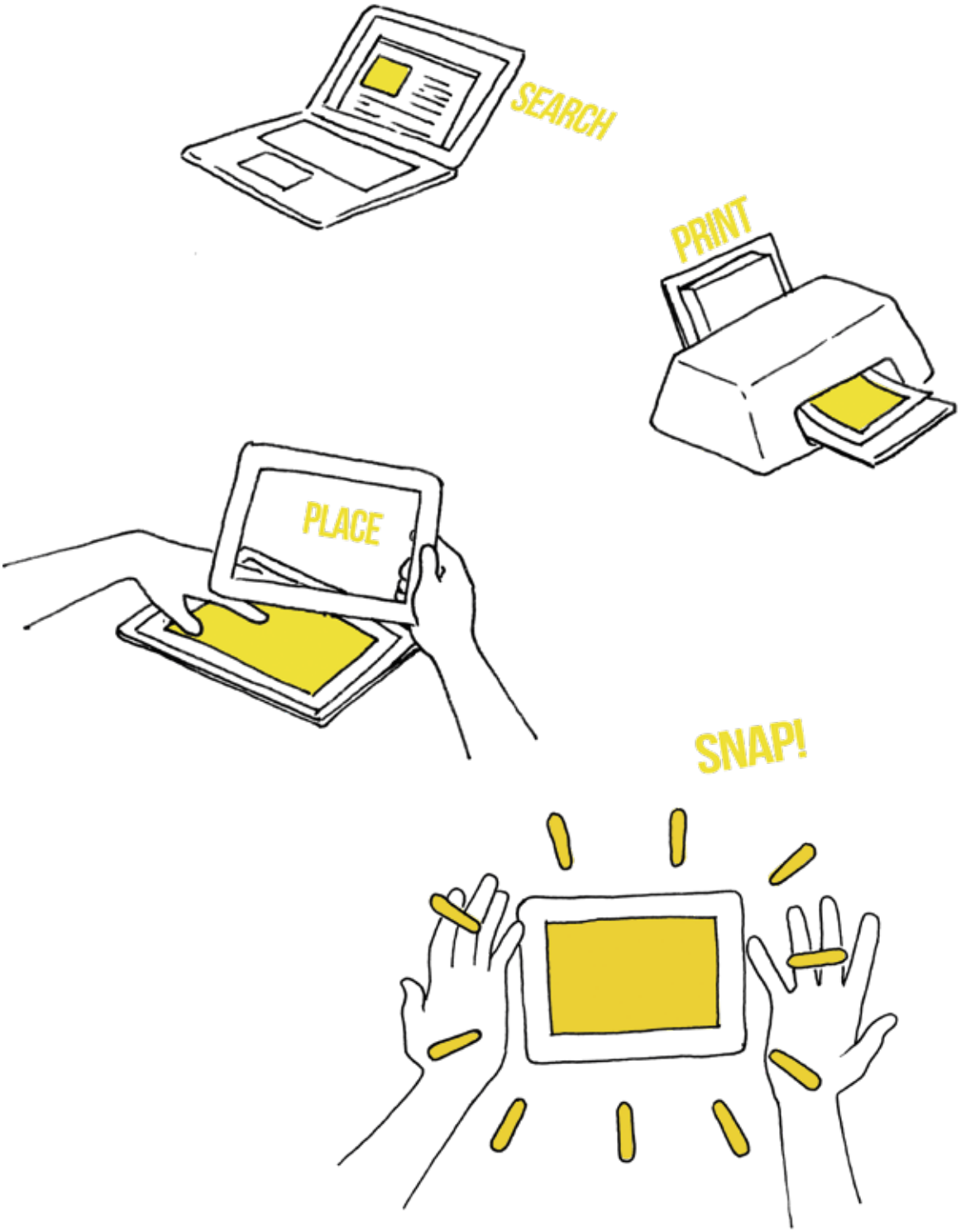
Field Notes and Sketches







Storyboard







9.1.3 Cups, Pots, Lamps

The final study of my PhD (6.0), Cups, Pots, and Lamps activities were designed and tested to invite exploration, fiddling, and creative expression.



9.1.3.1 Cups

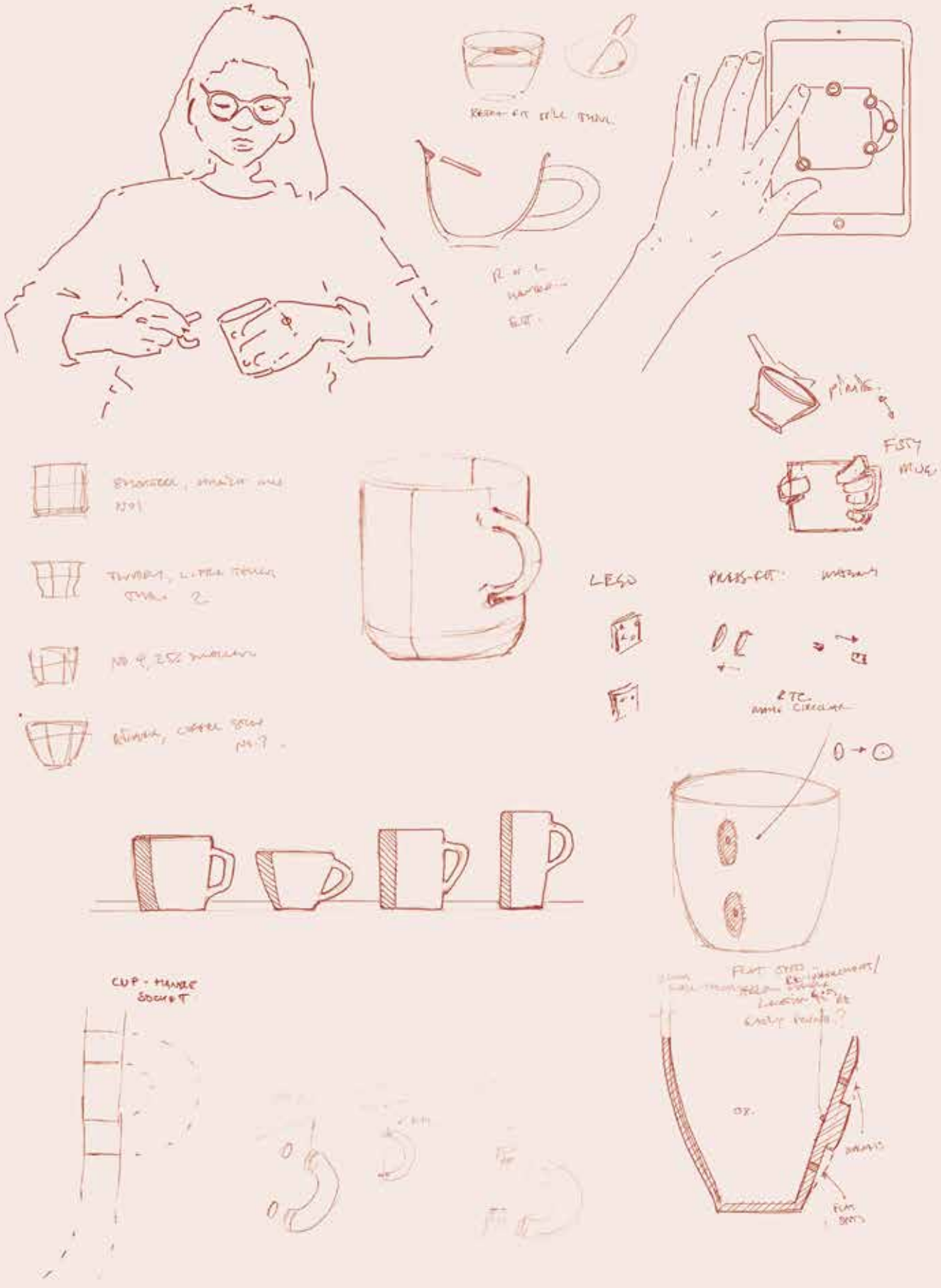
The Cups activity (6.2.1) allows simple configuration through modular parts assembly.

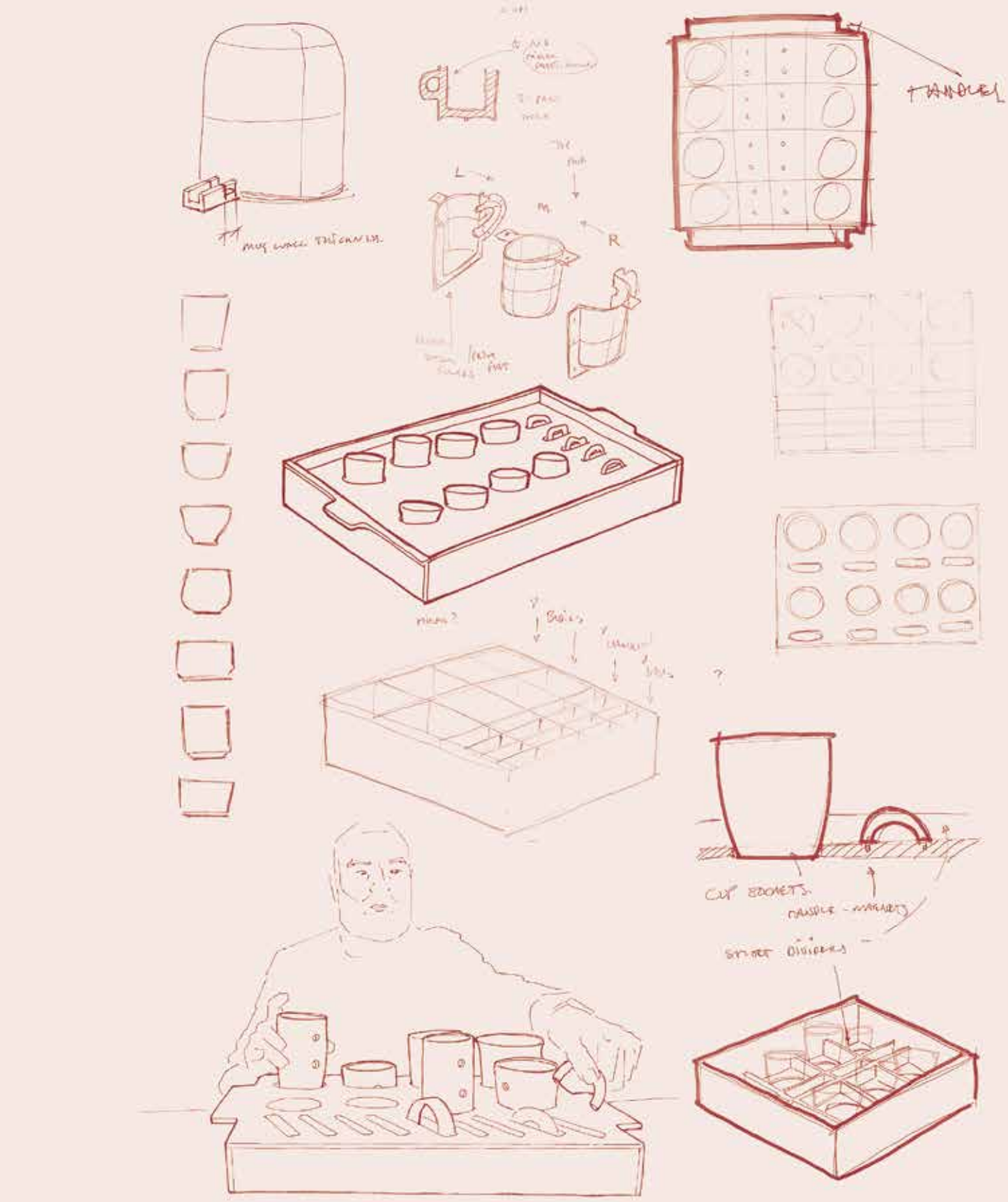
Initially, I experimented with clay models of a number of recognisable ceramic parts including handles, bases, bodies, spouts etc. However, I moved to a configuration where two components would be universally interchangeable.

After building card mock-ups to determine form moulds were 3D printed allowing cup bodies to be case in Jesmonite before embedding magnets to allow handles to be attached. Handles were 3D printed as positives, cast into silicone moulds, and Jesmonite copies were made with magnets embedded.

The ‘tea tray’ was made in poplar and brass, with embedded magnets to hold handles upright for ease of access.

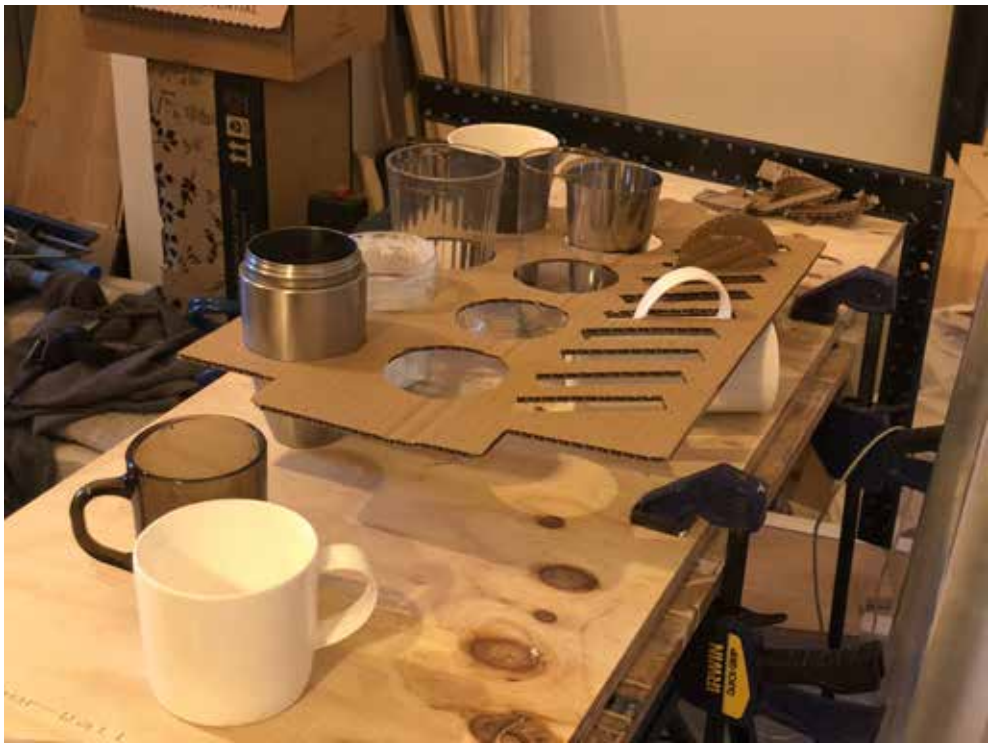
Participants’ finished designs have been 3D printed, silicone moulds made, and cast in Jesmonite. At time of writing they are in the process of being slip-cast into porcelain.

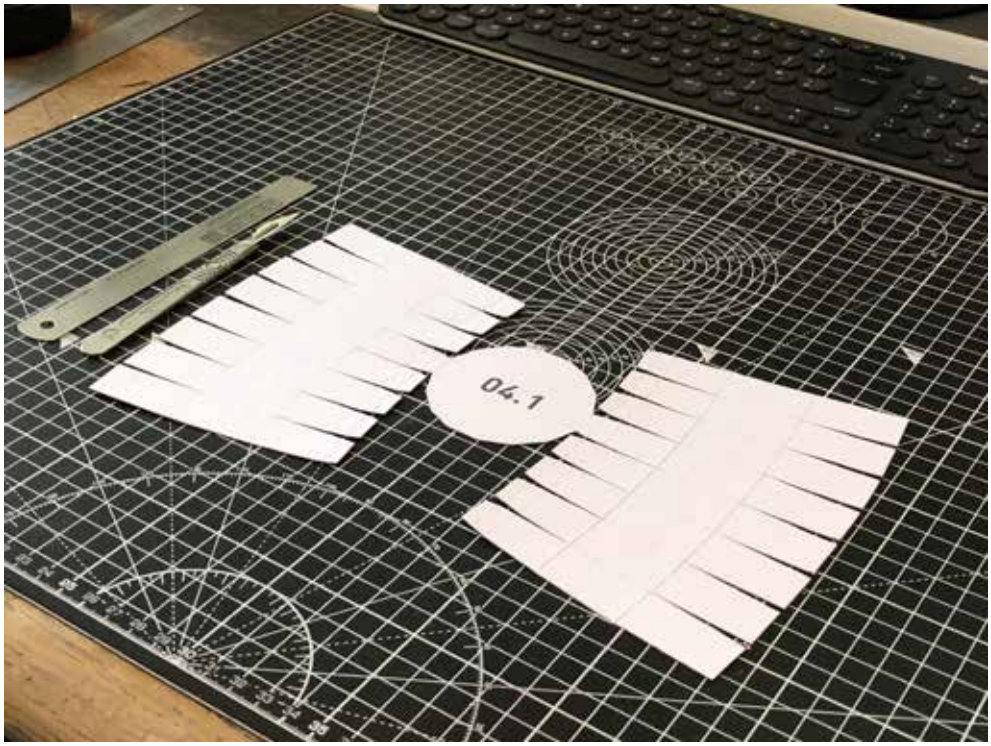

LEGO
CUP - HANDLE SOCKET

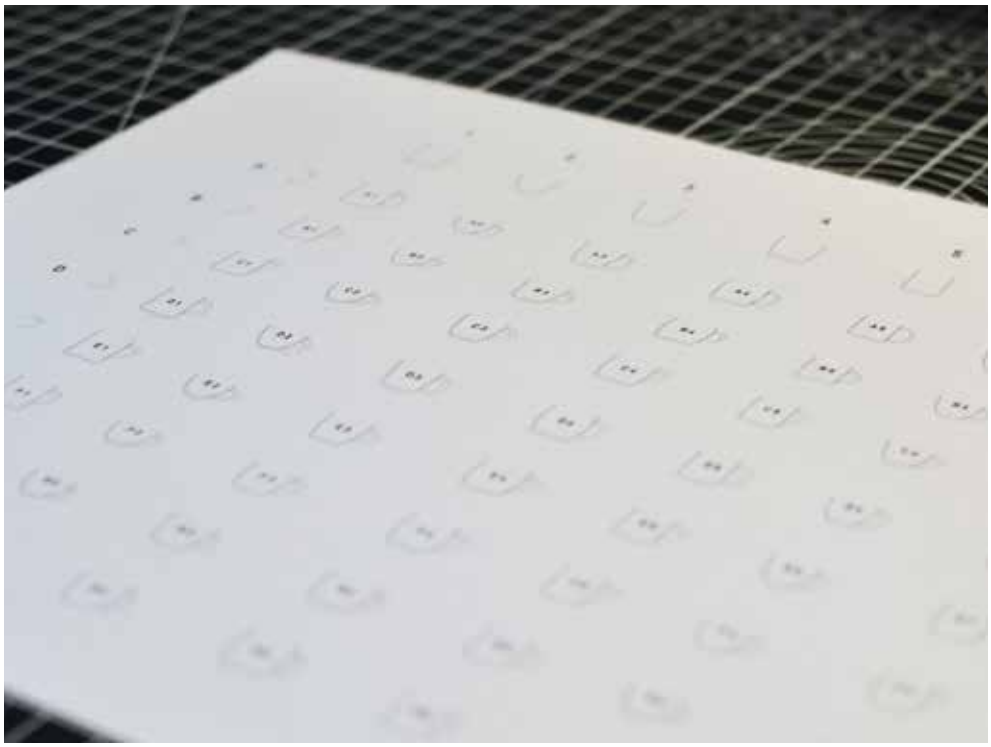

HANDLE
L
R
CUT SOCKETS
HANDLE - MAGNETS

Initial Prototyping






04.1




05.1
07.1


05.1
07.1


04.2



3D Printed Moulds












METRIC





Handles in Card










E.1


F.1


G.1


H.1


A.1
B.1
C.1
D.1


E.1
F.1
G.1
H.1





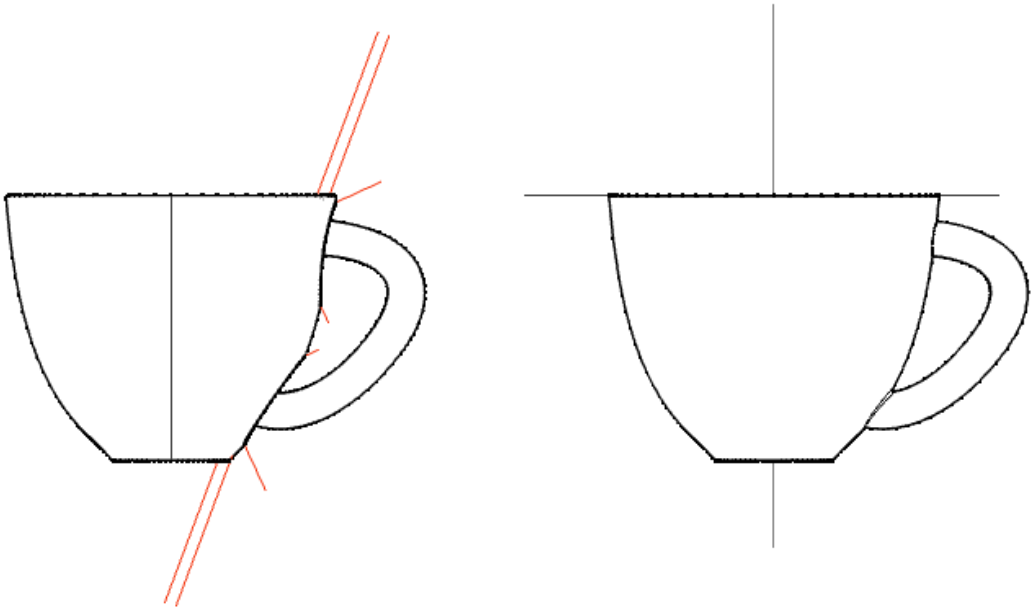


Participant Photo

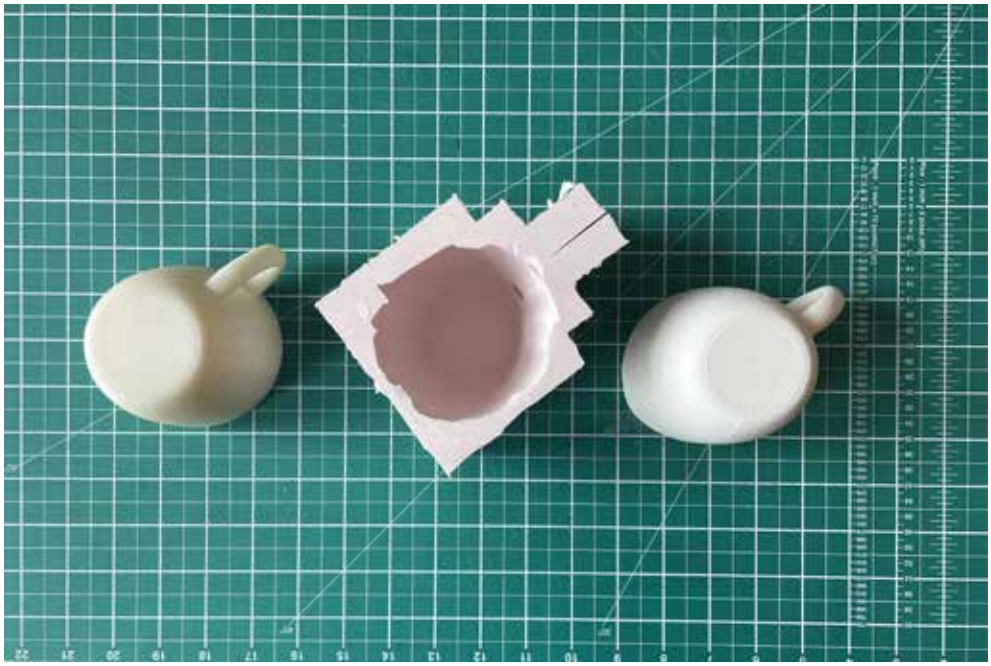


Image Credit: Participant - Alice

Individualised CAD



3D Print, Silicone Mould, Jesmonite Cast Cup





Components and Final Cup prototype built from Jesmonite



Betty's Cup Design



Image Credit: Participant - Betty



Poppy's Cup Design



Image Credit: Participant - Poppy

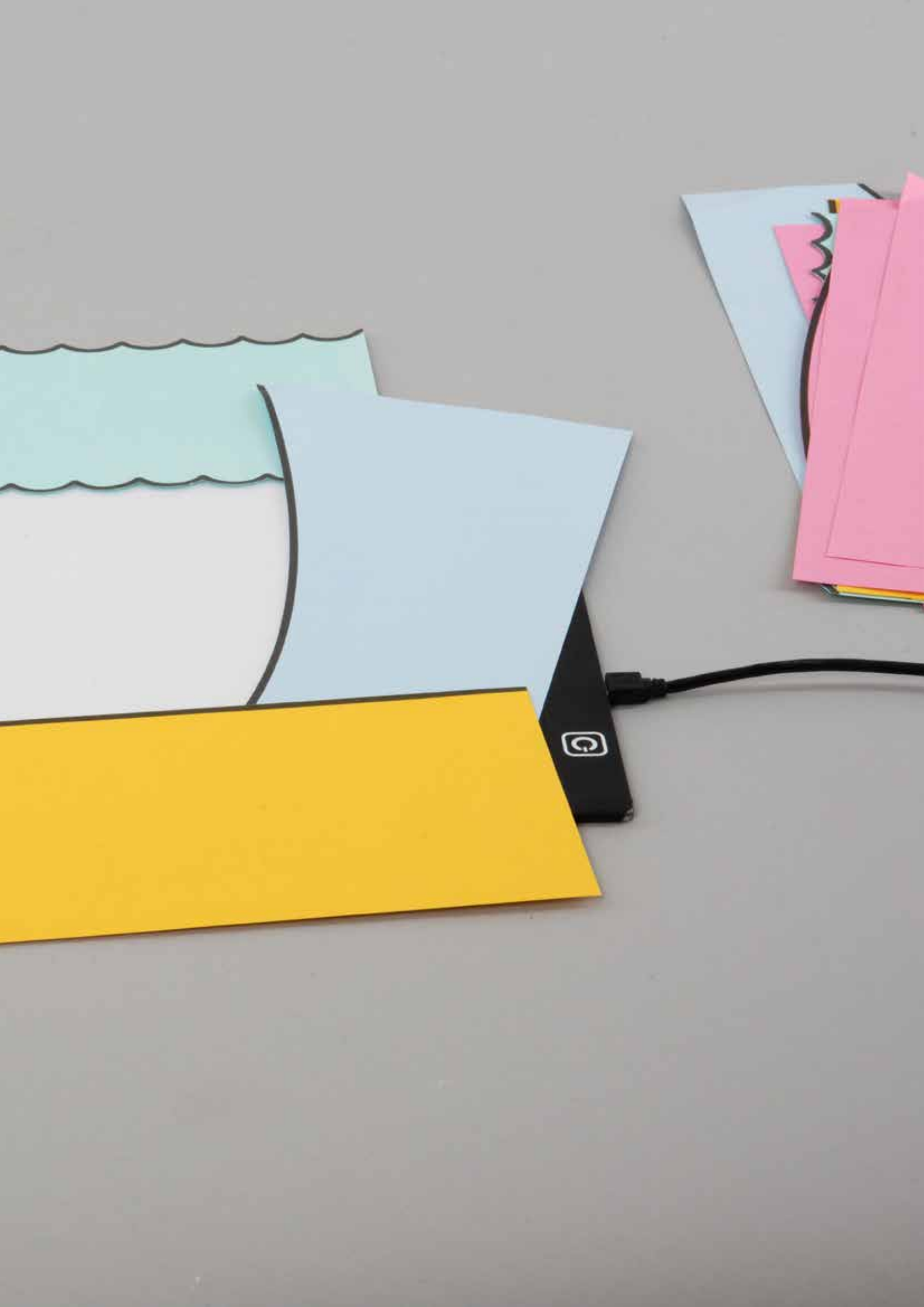


Alice’s Cup Design



Image Credit: Participant - Alice





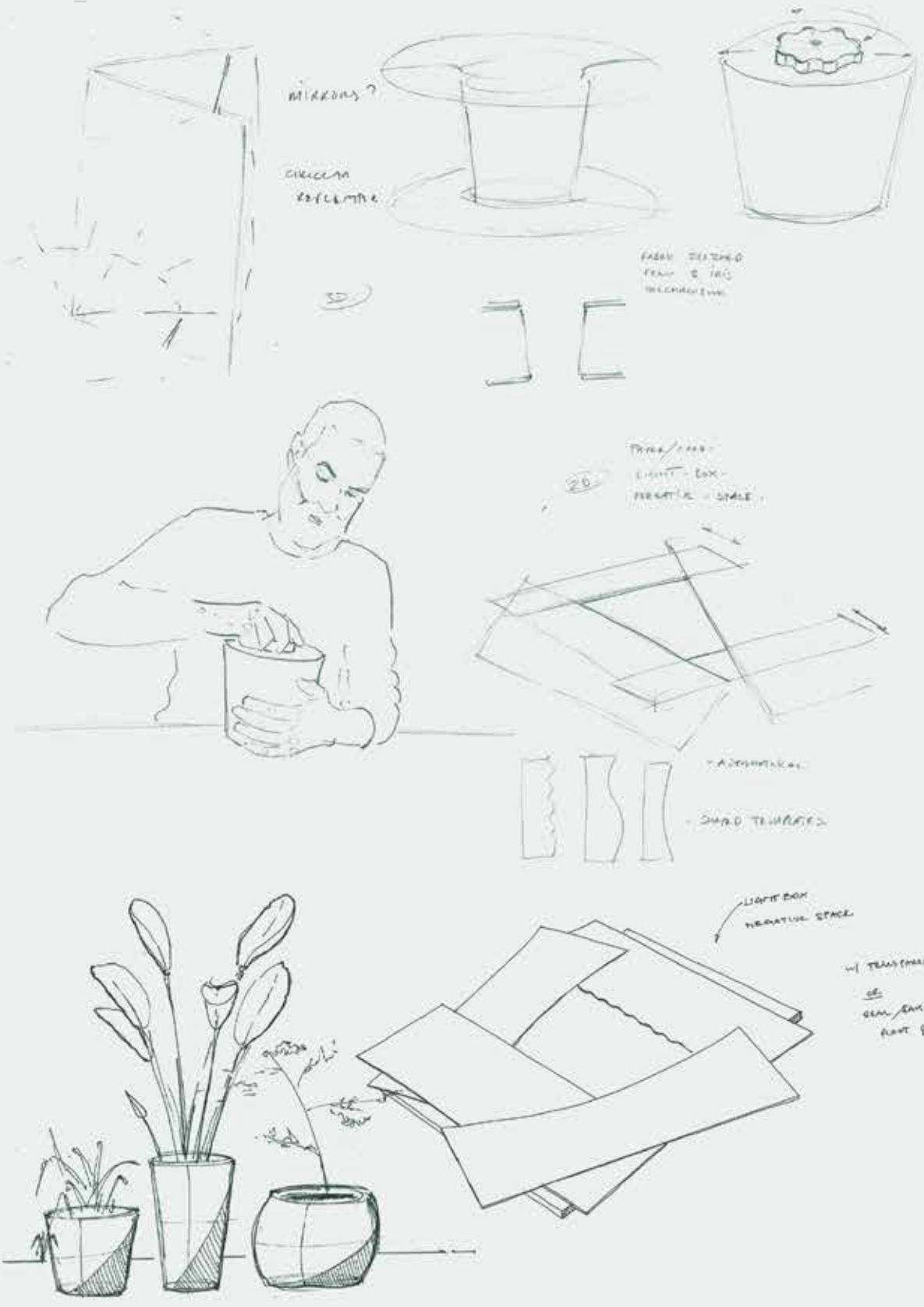
9.1.3.2 Pots

(6.2.2) The Pots activity was quick to prototype, simply using a craft knife to define forms for the section of pots, containers, and vases.

Initially, I developed concepts for 3D interactions using mechanised pots but they gave very limited options with a clunky interaction.

Final designs were printed onto coloured paper, accompanied photography of plants printed onto transparencies for scale, and an LED light box.

Participants' finished designs were then drawn from photos provided, and moulds were 3D printed for rotational casting in Jesmonite.


MIRRORS?
3D
2D
- SHARD TEMPLATES
LIGHT BOX
NEGATIVE SPACE
w/ TRANSPARENCIES
OR
REAL LEAVES
PLANT PARTS.



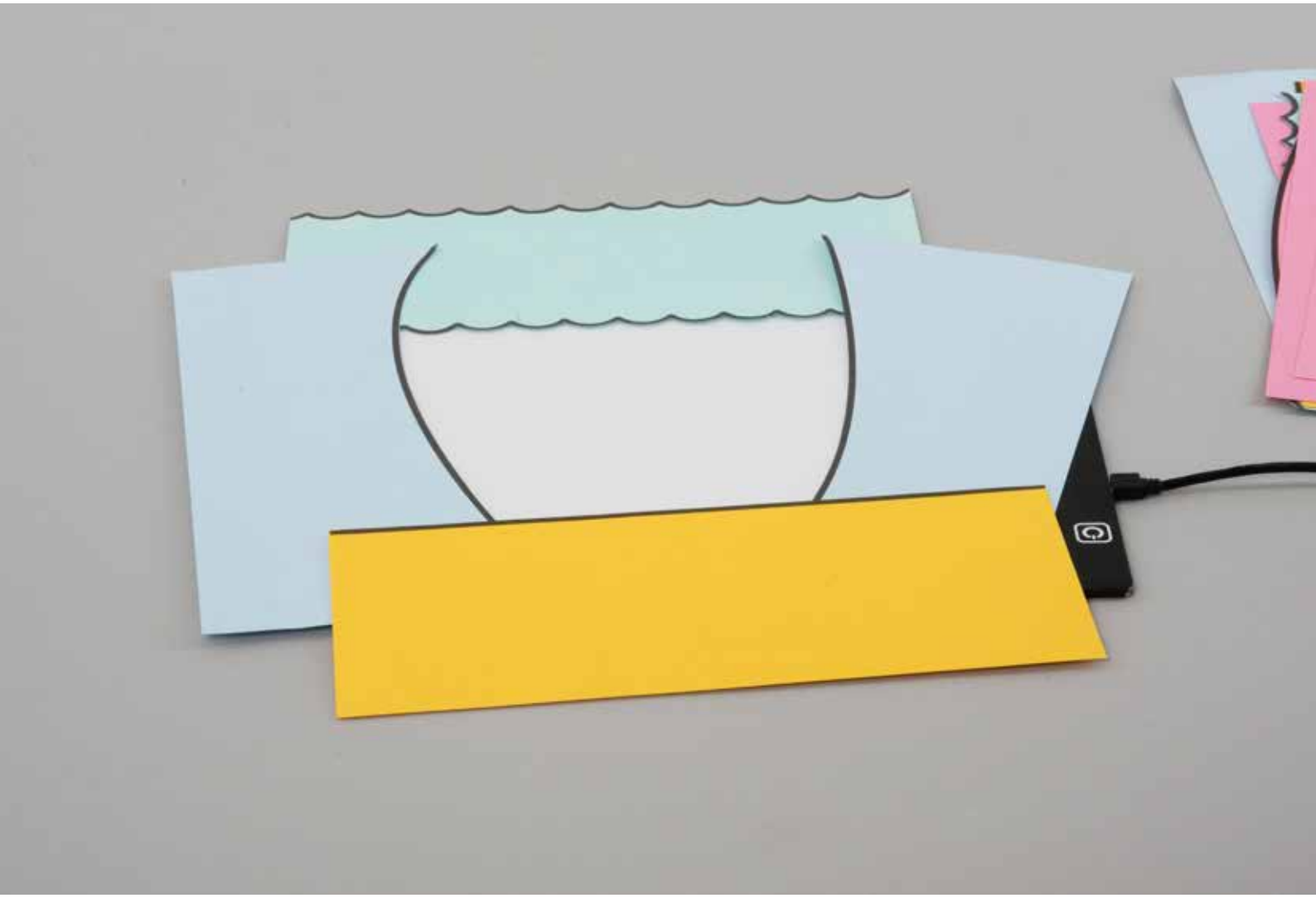
Pot Edge Designs

These designs were collated into a PDF to be printed and cut out with scissors, allowing Care Homes to potentially conduct the activity without the need for facilitation from a Creative Ageing practitioner.

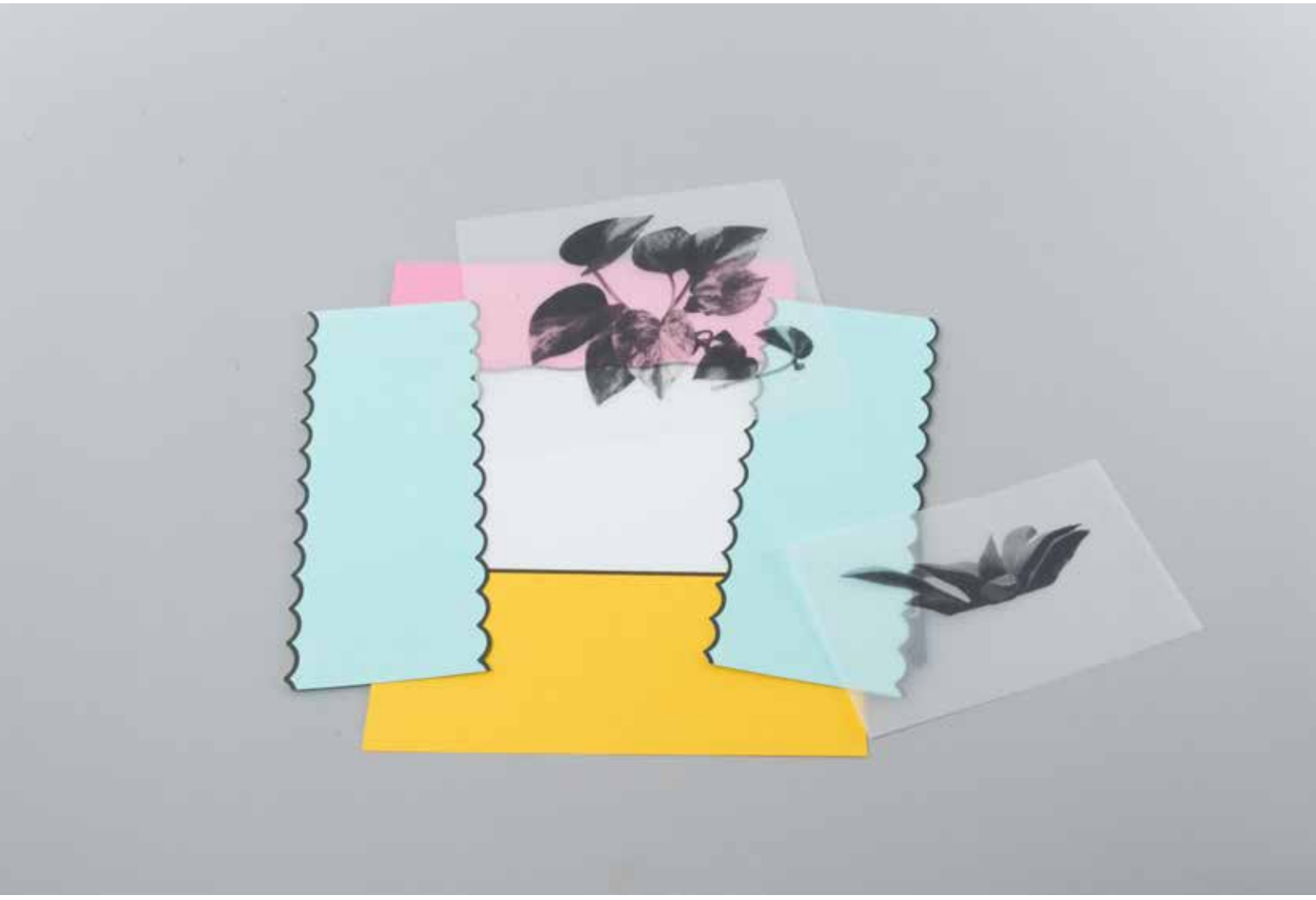




Pots Configuration



Plants on Transparency



Participant Photo, Individualised CAD

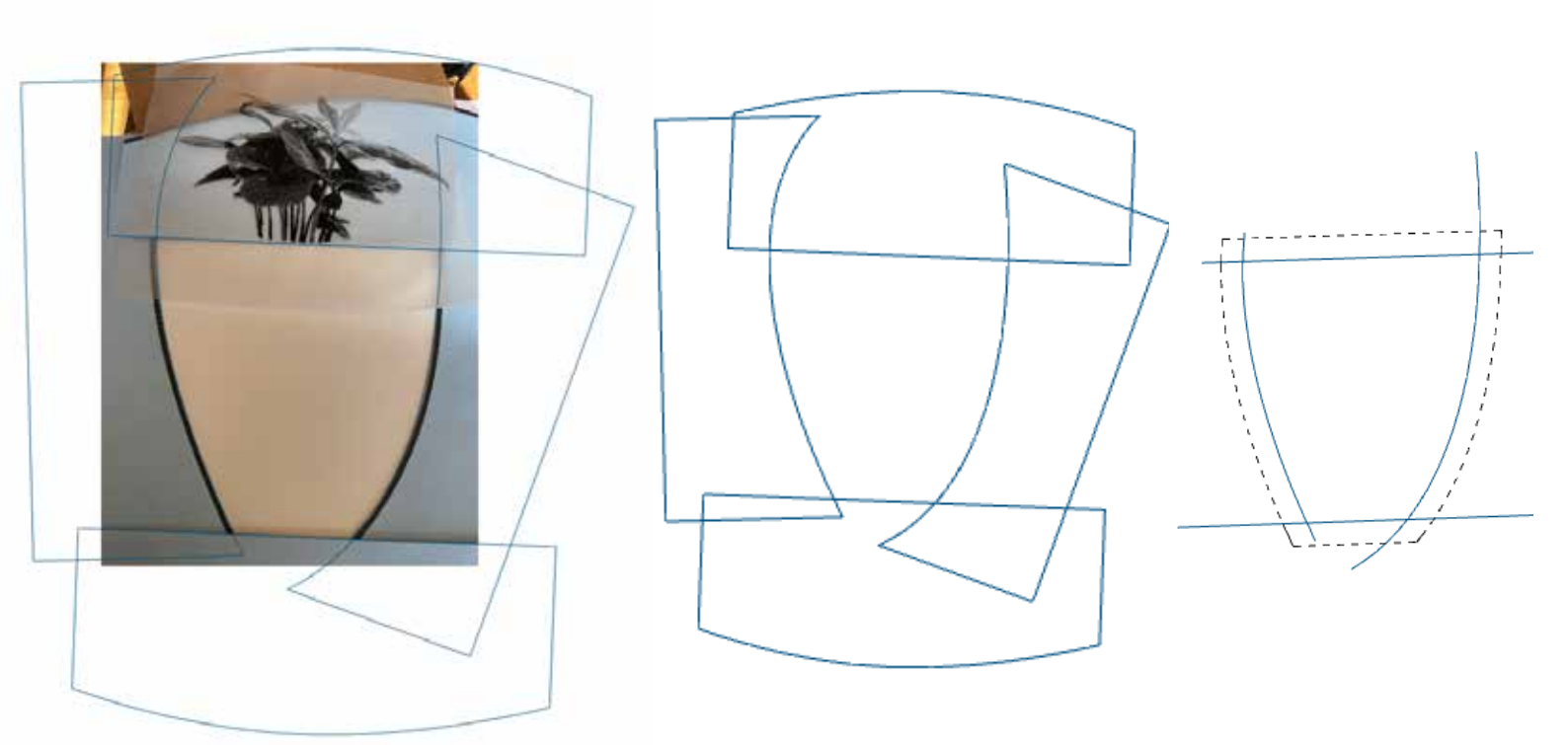
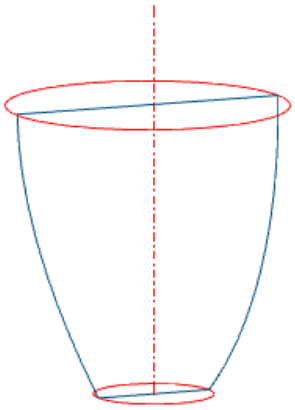
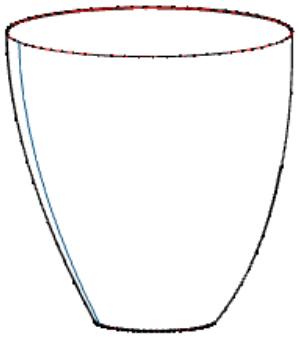


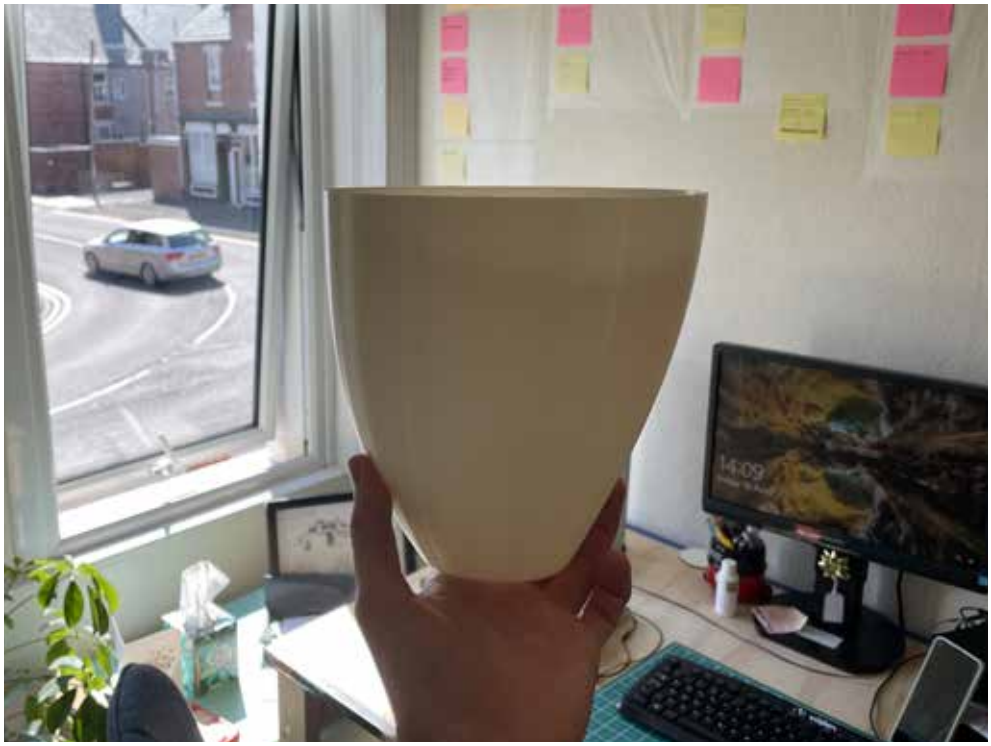
Image Credit: Participant - Alice







3D Printed Moulds, Casting









Moulds



Colour Tests





Alice’s Pot Design



Image Credit: Participant - Alice



Betty's Pot Design



Image Credit: Participant - Betty



Poppy's Pot Design



Image Credit: Participant - Poppy



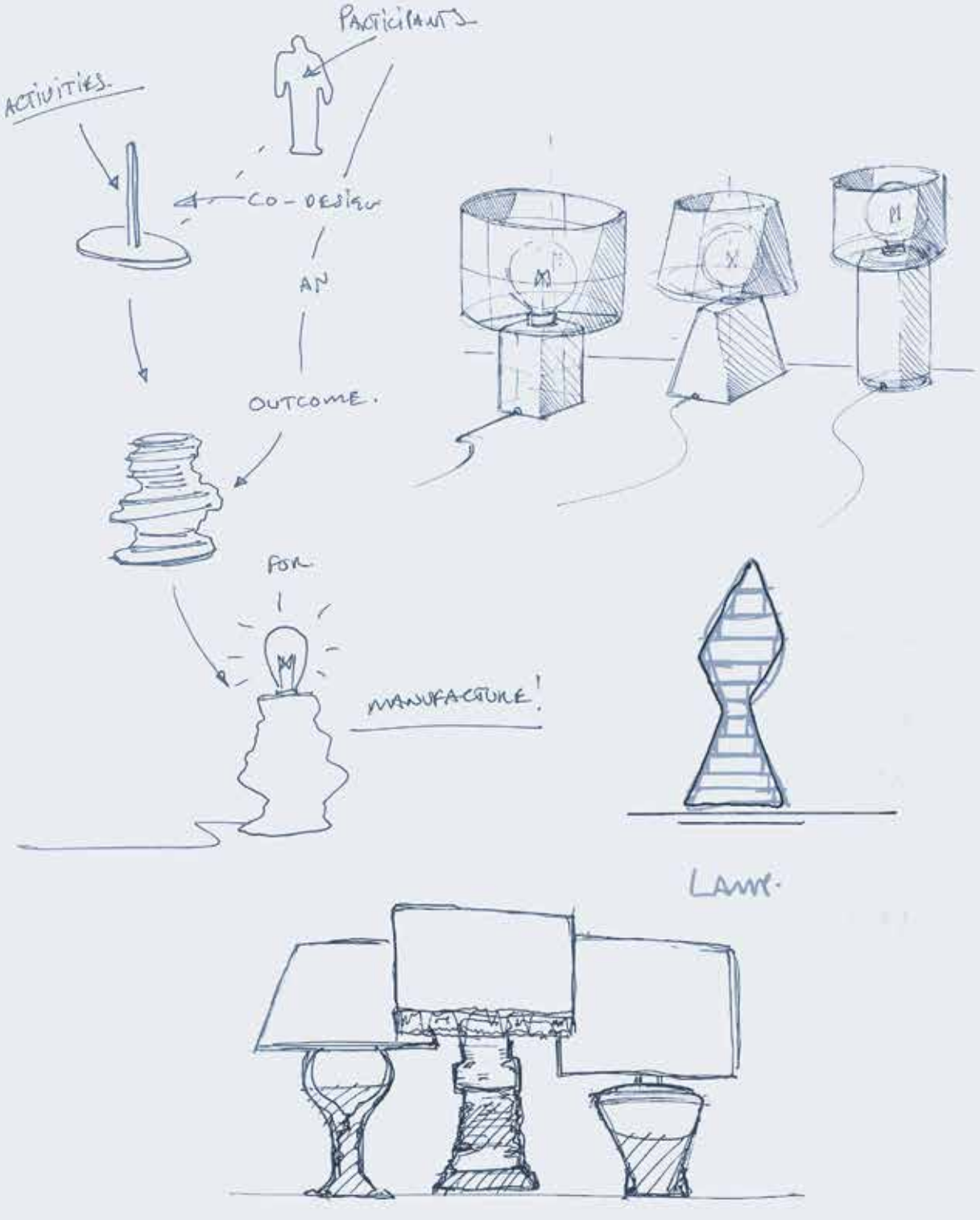


9.1.3.3 Lamps

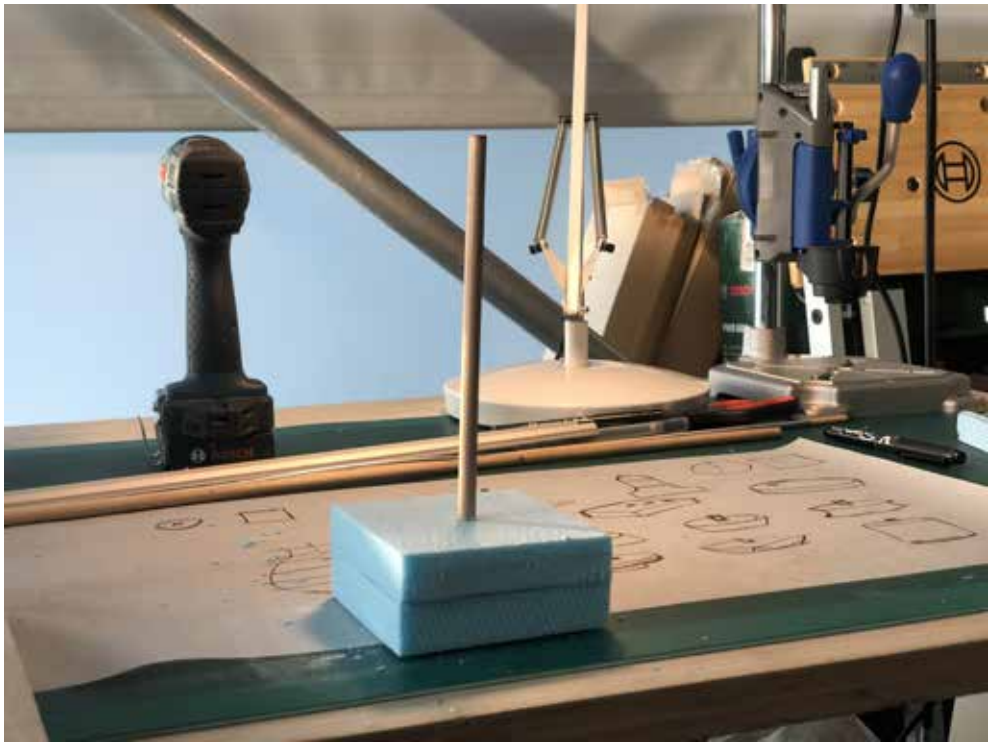
The Lamps Activity (6.2.3) was initially prototypes using blue foam where circles became apparent as the most convenient shape for layers. Following this I built computational models to test various configurations of number or disks parametrically, where I also generated animations to explain the interaction and options.

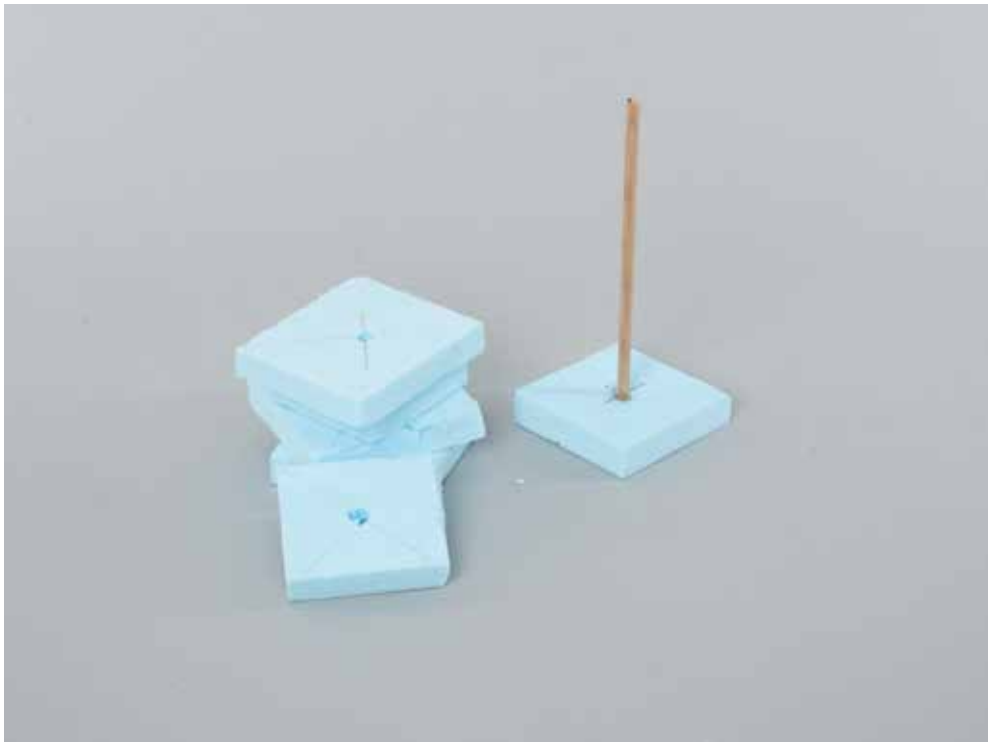
Final prototype disks were cut from poplar plywood, and the stands were handmade from birch. I edge-banded and mitred corners, sanded and waxed components making them smooth and inviting to fiddle with.

Finished designs were photographed before 3D modelling, a process of just counting layers and sizes. Moulds and forms were then 3D printed to be cast into Jesmonite, ongoing at the time of writing, before the addition of lamp holders and wiring.

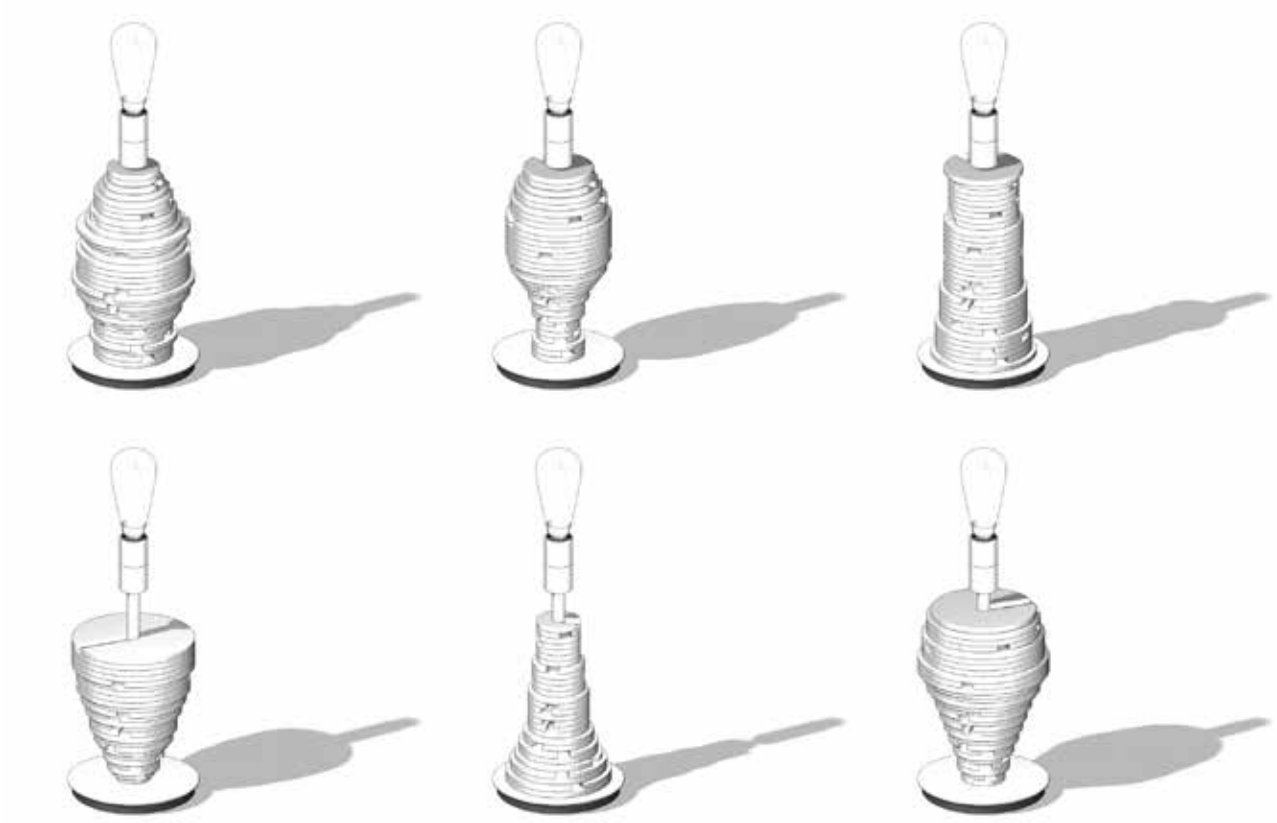

PARTICIPANTS
ACTIVITIES.
CO-DESIGN
AN
OUTCOME.
FOR
MANUFACTURE!
LAMP.

Sketch Prototype







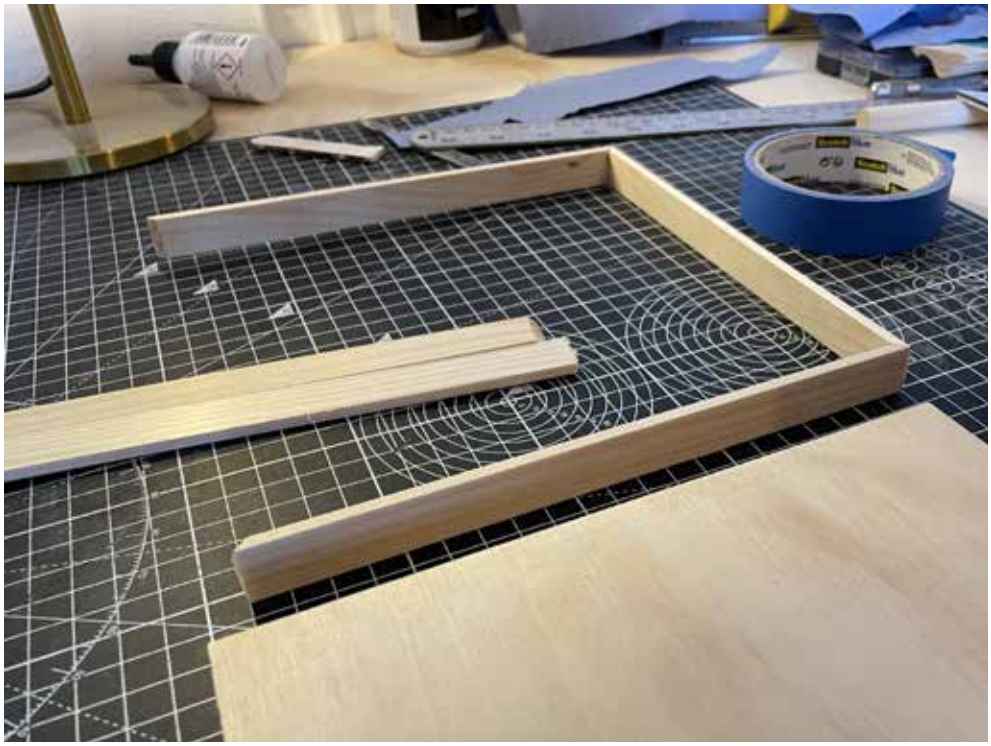


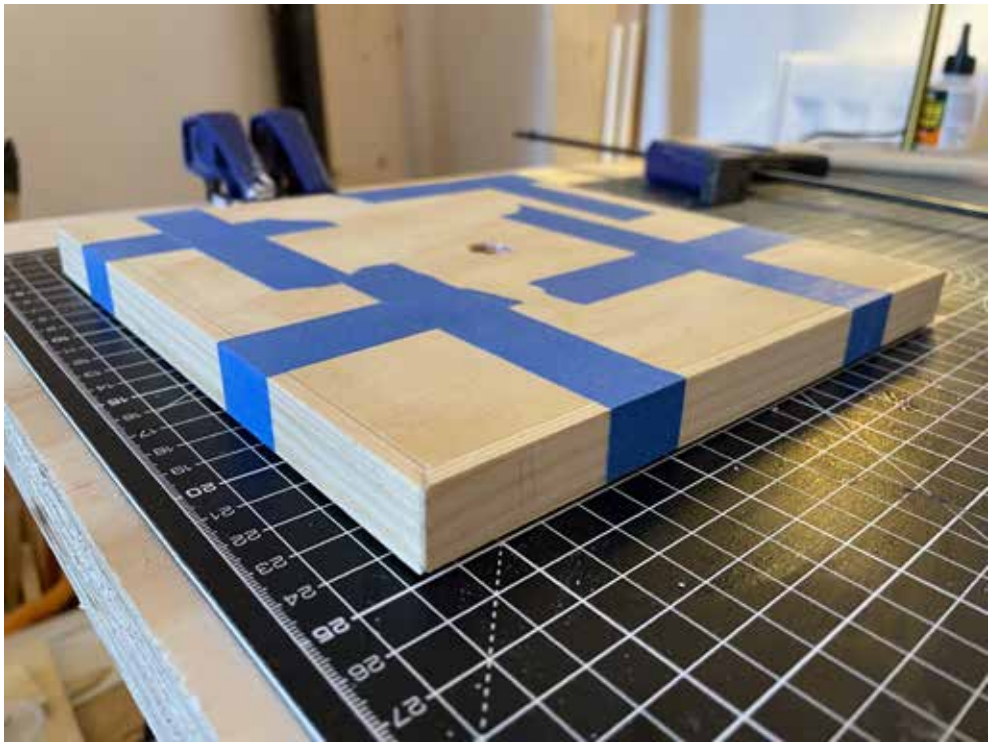




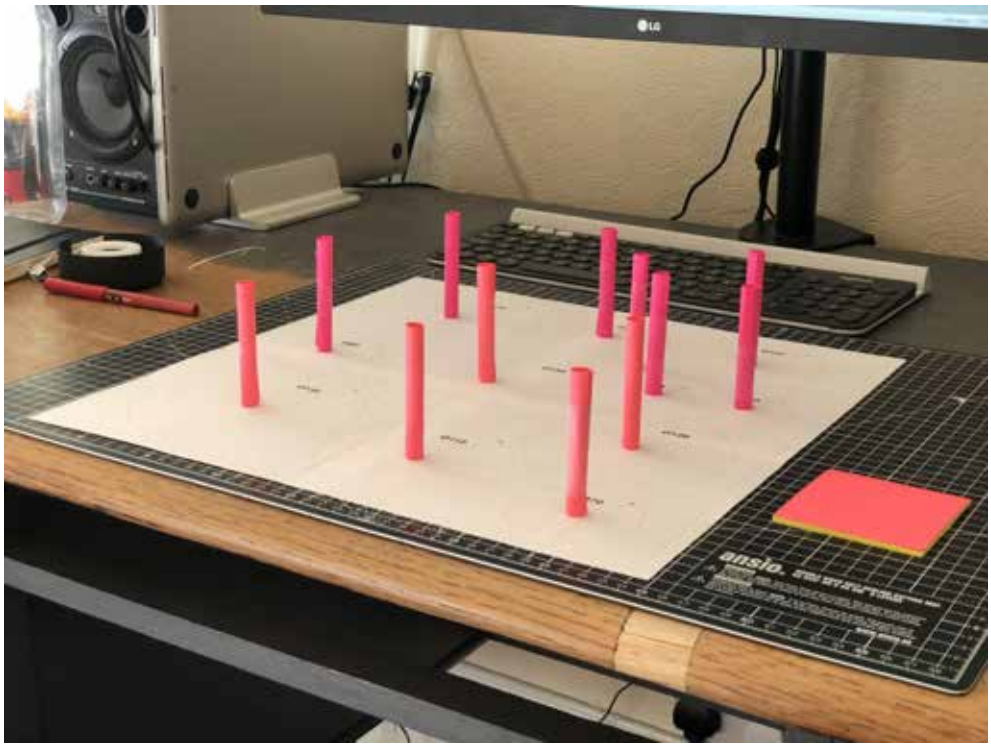




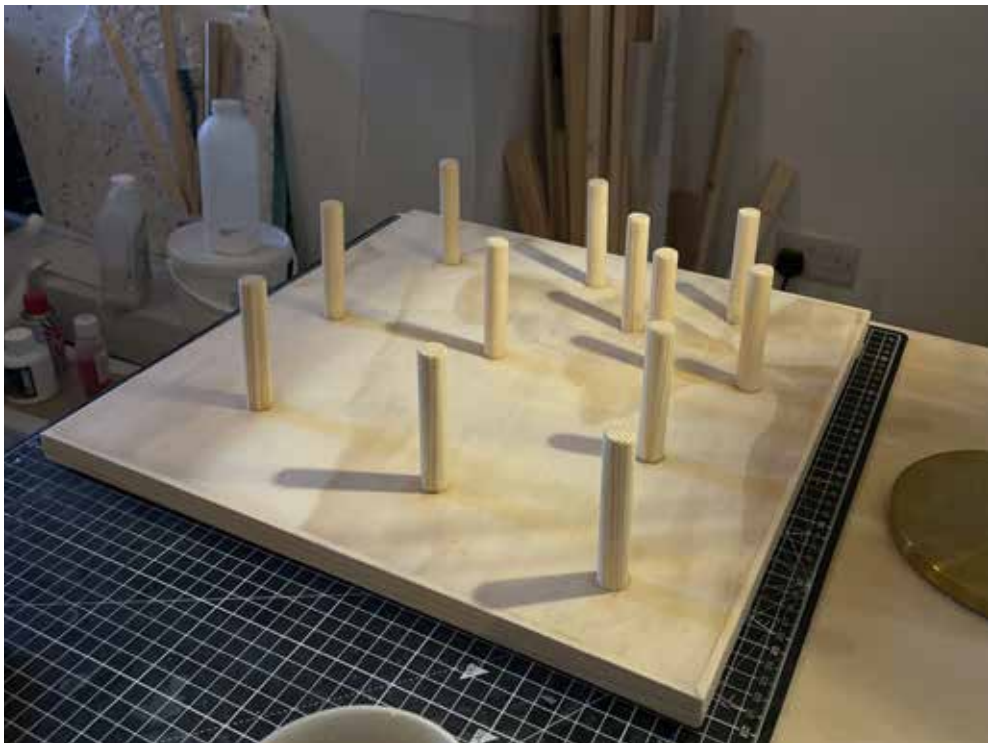









RELEASE
SPRAY



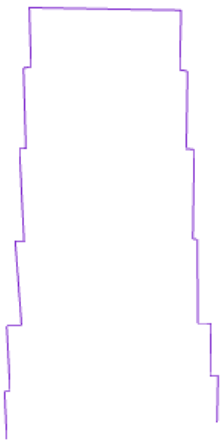






Participant Photo, Individualised CAD





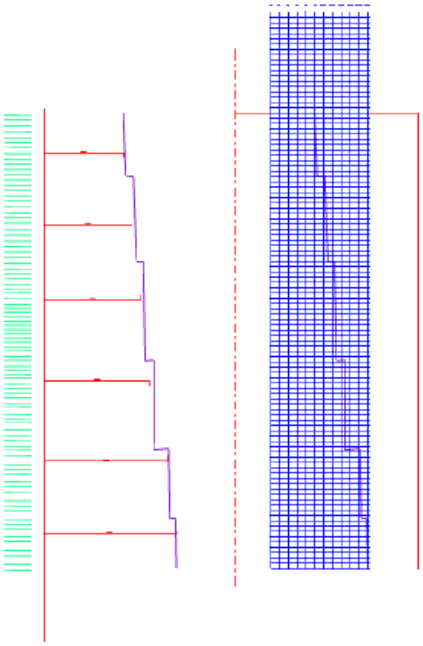
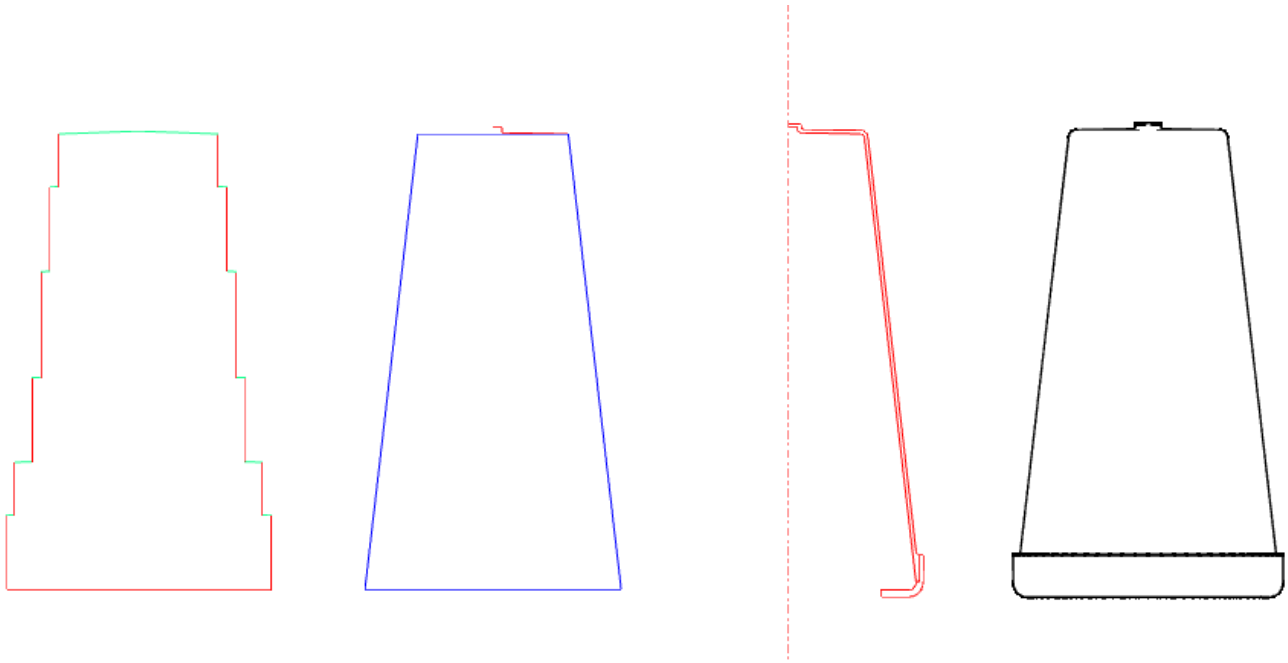


Image Credit: Participant - Alice



Alice’s Lamp Design



Image Credit: Participant - Alice

Jesmointe Lamp



Betty’s Lamp Design



Image Credit: Participant - Betty

Jesmointe Lamp



Poppy's Lamp Design



Image Credit: Participant - Poppy

Jesmointe Lamp



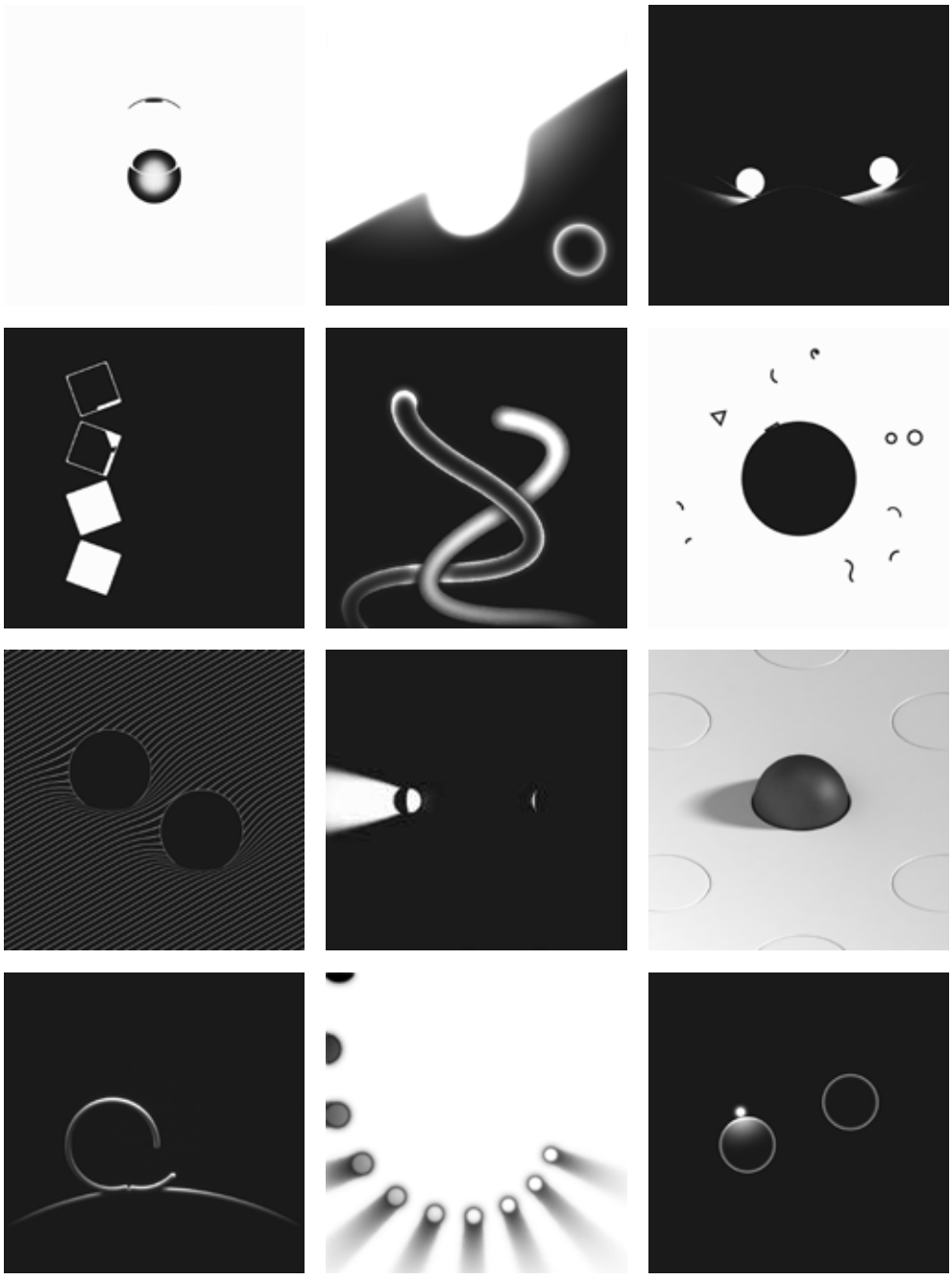




Appendix 9.2
Contextual Review Map

henrycollingham.com/contextual-review-map

To accompany the Contextual Review (2.0) presented in my written thesis, I used this working document to situate scholarly work alongside commercial products to further contextualise my inquiry.



Appendix 9.3
Twelve Interactions

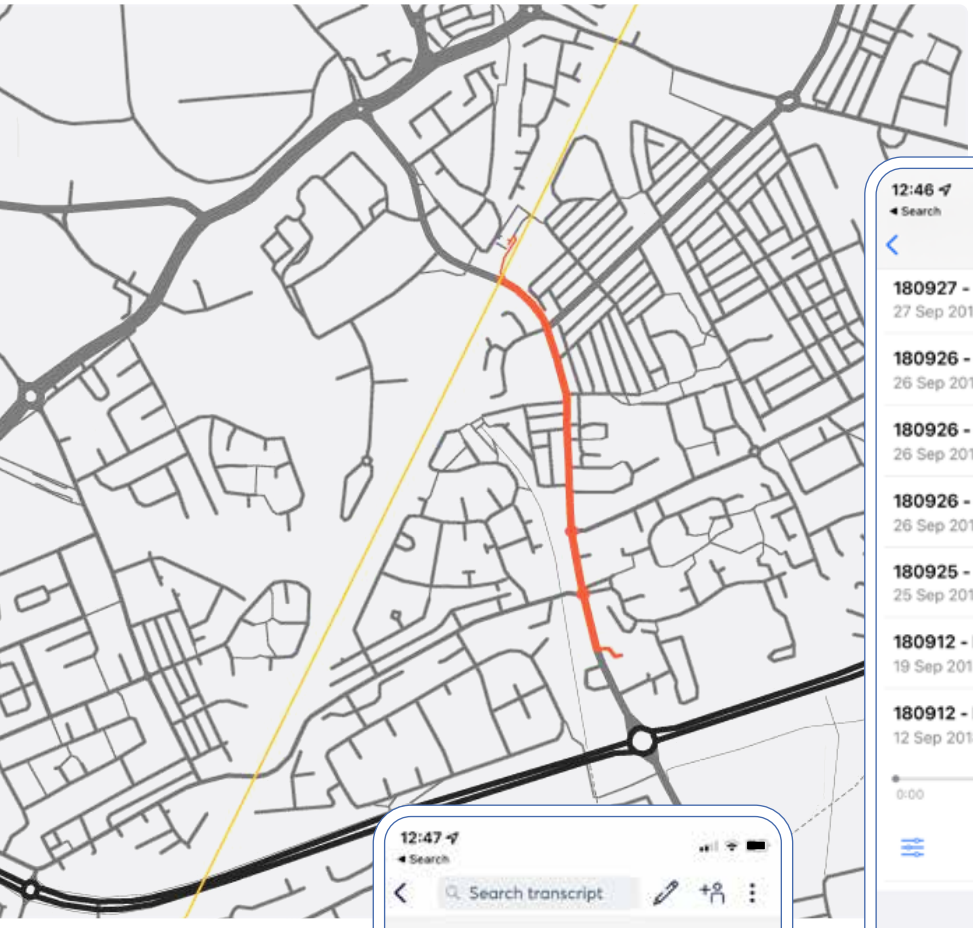
henrycollingham.com/twelve-interactions

A series of animations created in response to Tom Kitwood's twelve positive interactions of Person-Centred Care (Kitwood 1999).

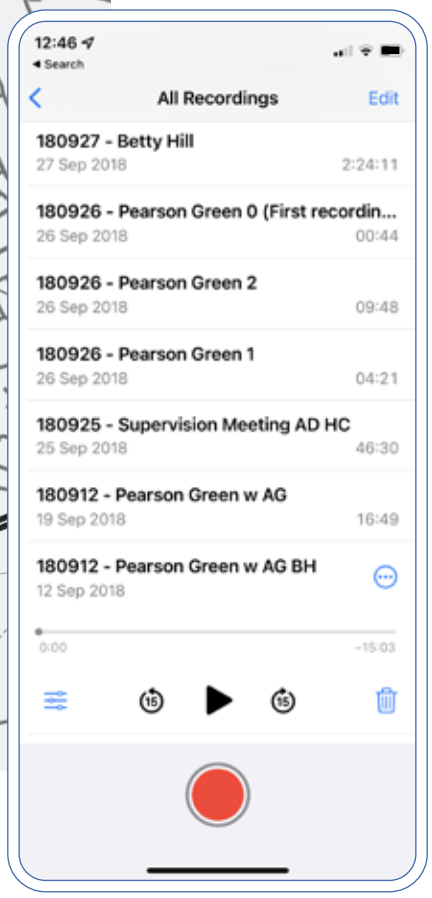
Appendix 9.4
Ethnographic Analysis: From Notes to Narrative

This appendix shows which tools I used, digital and physical, to collect, curate, and code my fieldnotes from Pearson Green into the narrative account presented in my main thesis (4.2).

I also present a worked example of the Ethnographic Analysis used in my first empirical study and give examples of how analytic insight was generated as a result of the methods used in that case.



My Walking Route



Voice Memos Screen shot



Otter.ai Screen shot

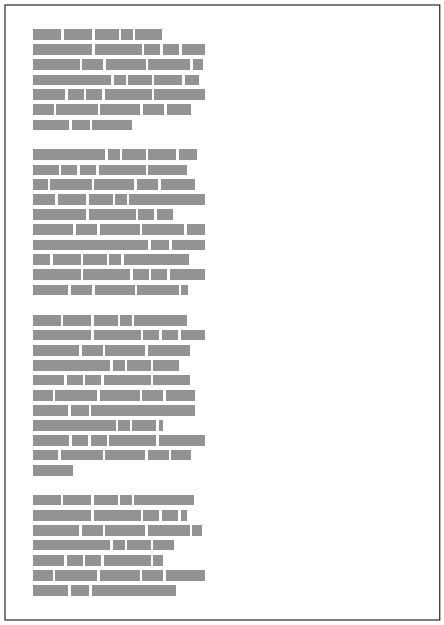
9.4.1 Data Gathering

As described in the main body of my thesis (4.1.1), I chose to audio record my reflections from each workshop at Pearson Green during my walk from the Care Home back to the local train station (left).

I used my phone's voice memos app, pretending to be on a phone call to someone as I recounted the day's activity. As in the 'loci' memory method, I would work my way systematically around the room in my head, recounting any interactions with residents which had left an impression on me.

9.4.2 Transcription

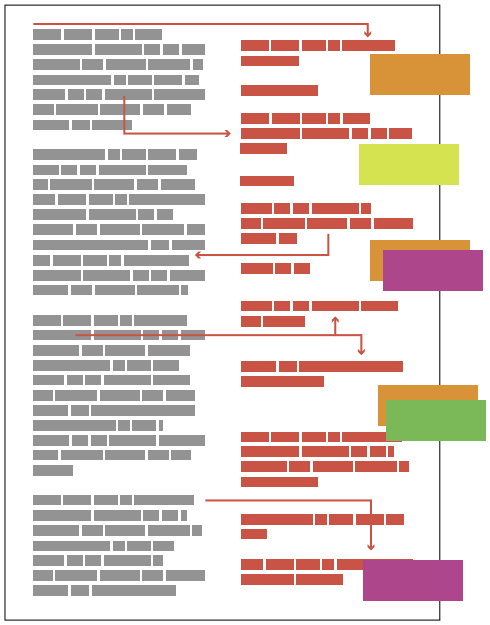
I uploaded these audio-fieldnotes to an AI transcription service, 'Otter.ai', which I would then hand-transcribe as I listened back to the audio. The result was time-coded, written transcriptions, including summary keywords. This allowed me to search in the written transcription for any resident, or key term, and be able to find my way back to the moment in my original audio-recording with ease.



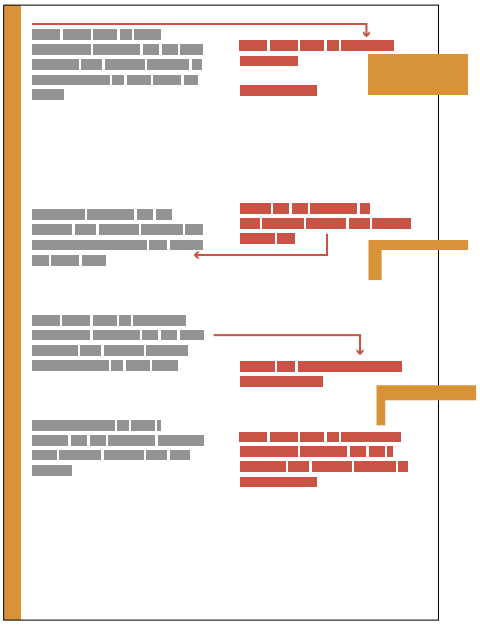
1. Transcribed Fieldnotes



2. Hand-coding Round 1 (Red Pen)



3. Hand-coding Round 2 (Themes)



4. Codebook generated, per theme

9.4.3 Coding in Circles

I printed the resulting transcriptions in one column (1. Transcribed Fieldnotes), allowing for my first round of interpretative coding. This 137 page document represented the initial data corpus from the study, and due to the use of Otter software, I was able to follow each textual element back to its original audio recording - this was useful in writing up as I could re-listen to the tone and delivery of my original account, rather than only using the text, this helped me gain a richer picture of my recollection in context, in the manner of Hermeneutics.

Once the study had concluded, I started to respond to these transcripts through reflexive, interpretative statements. I chose to do this round of coding by hand, with red pen (2. Hand-coding round 1, red pen). During this first round of coding I was keen to interrogate what I had chosen to present in my account, and in what manner. This first round of coding revealed longitudinal trends in my perception of residents, and the development of my sensibility to the community over time as I built relationships and grew in experience.

Following this, my second round codified key themes from the original account, and my reflections. I generated 4 main themes, which informed my account (4.2), 1. Remembering and Imagining 2. Creativity in Context 3. Sensory Environment 4. My Self Development. I re-read the fieldnotes once more per theme, using post-it notes to mark relevant extracts for each code with a colour. I then scanned this document and cut it up, digitally, to create 4 individual codebooks, one per theme.



Fieldnotes after Hand-coding Round 2. Reflexive codes are in red pen, themes are represented by the coloured post-it notes



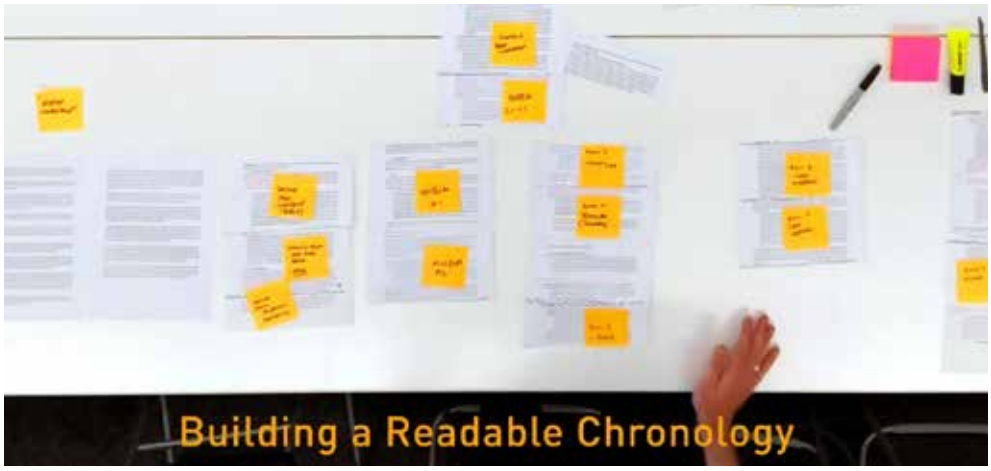
Resulting codebooks, arranged by corresponding colour.

9.4.4 Systematic Reflection and Insight

Reading each codebook, representing all the given data and reflections for one main theme, I started to construct a narrative account. This systematic analysis allowed me to navigate a year's worth of fieldnotes with relative ease. I was able to position and juxtapose stories from Pearson Green together which may have taken place months apart, with completely different people, to begin to explore the common themes presented in fieldnotes, through the context of the relationships I had then built over the year.

This is the point at which the time-scale of my ethnographic work became valuable. I could re-visit interactions with residents on any given day, for example our first meeting, and listen to how I recorded that interaction, and how I understood it at the time, but through the lens of someone who had got to know that resident in a meaningful way over the subsequent months spent together. This was revealing especially in terms of normalising behaviours with switch I was not familiar, and shining a light on my concerns and biases going in to Pearson Green with very little experience. This is why I chose to dedicate a whole section in the main account to my first day at Pearson Green(4.2.1) in which I presented the most relevant examples of my embodied preconceptions.


Organising extracts by the true order of events


Building a Readable Chronology


Outlining The New Structure

9.4.5 Structure and Narrative

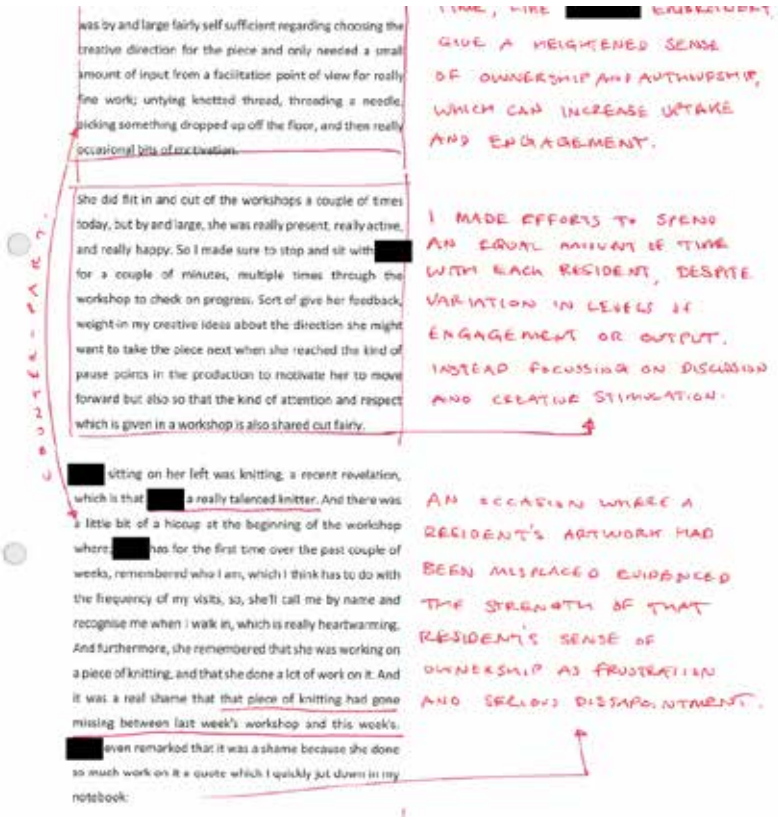
Having chosen stories I felt best illustrated my learning from each theme, I refined the narrative writing of each, informed by methods from Ghodsee (2015). This included; incorporating sensorial imagery, historical context about place, asides about people's personalities, and my feelings and senses at the time, into the narrative account.

Faced with a huge written account that was hard to follow, I chose to restructure the story from Pearson Green once again, by hand. I printed out each of these short narrative accounts, cut them out, and arranged them into groups to strengthen arguments for my discussion points which I had defined through the writing process. I documented this process using time-lapse photography (left). This process formed the main structure of the account presented in my thesis (4.2) in three main themes; 1. My Bias and Experience 2. Individualisation and Adaptation 3. Social Spaces in the Care Home.

I will now present a short worked example of this notes-to-narrative process, worked backwards from my main account, including any examples of insights that were generated as a consequence of the specific methods described in this appendix.



1. Otter.ai Screen shot, Audio Transcription



2. First round of reflexive coding, hand coding [72]



3. Second round of thematic coding, codebook [G72]



4. & 5. Draft writing stages and juxtaposition

9.4.6 Worked Example

On one occasion there was a bit of a hiccup when a piece of knitting by another Resident, Katherine, had gone missing between workshops. *'I'd worked hard on that!'* Katherine exclaimed when it transpired that we couldn't find it. Katherine would usually introduce herself to me each week, asking my name and where I'm from and what the workshop was about. That she remembered working on the piece in previous weeks was itself unusual, and testament to how important her work on this piece was to her. Luckily, Alice was able to quickly recreate Katherine's piece for her to continue on with happily, but Katherine's frustration in the moment impressed upon me the strength with which she felt ownership over her work. For Katherine, undertaking a project that extended beyond the time frame of a single workshop required 'more of her', in terms of self-expression.

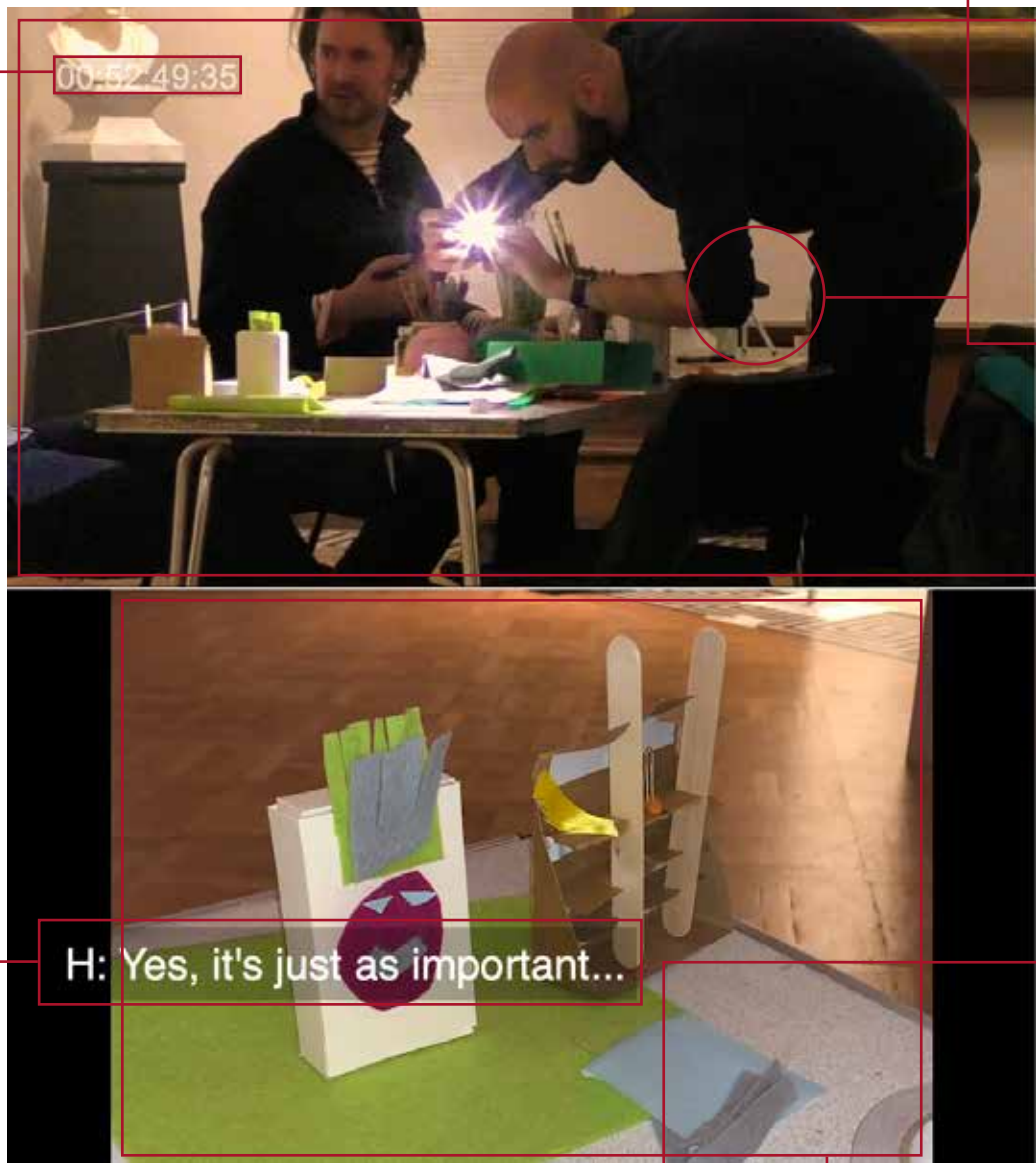
The above example taken from my account (4.2.2 p160), describes Katherine's experience as a piece of her work goes missing. The way I structured my note taking allowed me to navigate back to the original audio notes (1), and find a quote from Katherine (not her real name) which I jotted down on the day, this combination allowed me to 'capture her voice' adding depth to her character in the account. Reflexive coding (2) gave me the perspective, following the completion of all the workshops, to note how significant this moment had been for Katherine, in the context of her personality, and our typical interactions over the year. Thematic coding (3) then allowed me to see this story more clearly in the social context of this workshop, and others more broadly. Finally, In restructuring the account away from a 'true' chronology (4), it was juxtaposed against a contrasting account, this illustrated my insight, informed by Killick and Alan (in Lee and Adams 2011, 235), into the unique ways individuals experienced time, related to their activities. This vignette, and resulting insight, also inspired designed responses to this idea, e.g. the 'Retrospective Recorder' developed in the subsequent study (5.4.3).

Appendix 9.5
Visual Video Analysis

In this appendix I explain the method I used for video analysis, using the example of the Shipley Gallery workshop from my second study, (5.4.2). For this method I created a working file incorporating photography, audio, material prototypes, transcription, and animation onto one video time line. This method was used in the final two studies of my thesis (5.0, 6.0)

I also detail some of the animation techniques incorporated into this analysis, and show a worked example of ways in which this method generated and clarified critical insight.

Below is a screen shot taken from the ‘finished’ video analysis.
Here I call out the individual elements I compiled together in Adobe Preimere Pro, which I will go on to describe in detail.



5. Closed Caption file for Team 1 - displayed in time

6. Closed Caption file for Team 2 - displayed in time

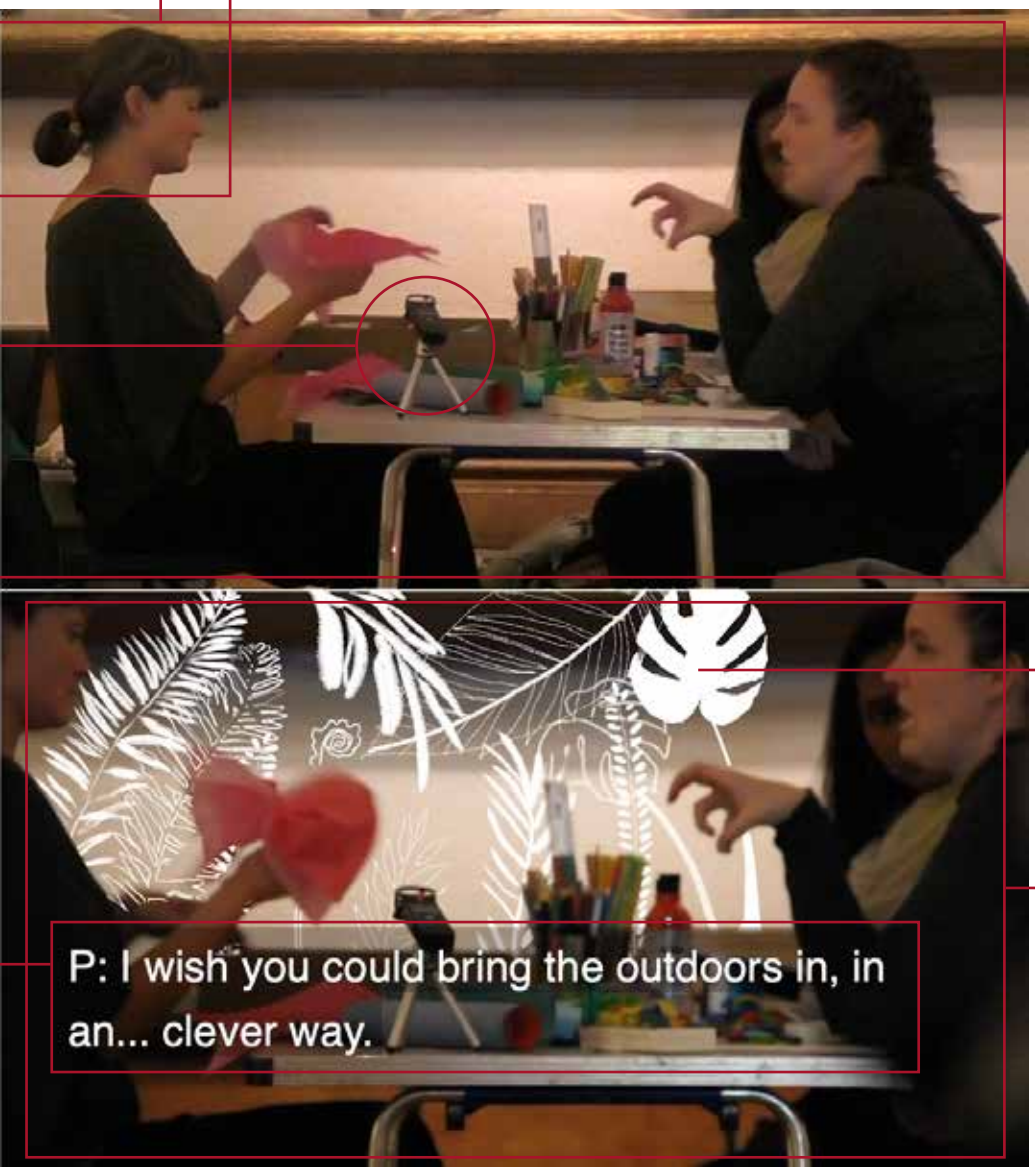
7.Time code for all media

1. Individually recorded Audio tracks for each Team.

2. Principal shot [A] wide- showing both teams.

3. Secondary shot [B] close- showing details

4. Grid overlay - to distinguish elements

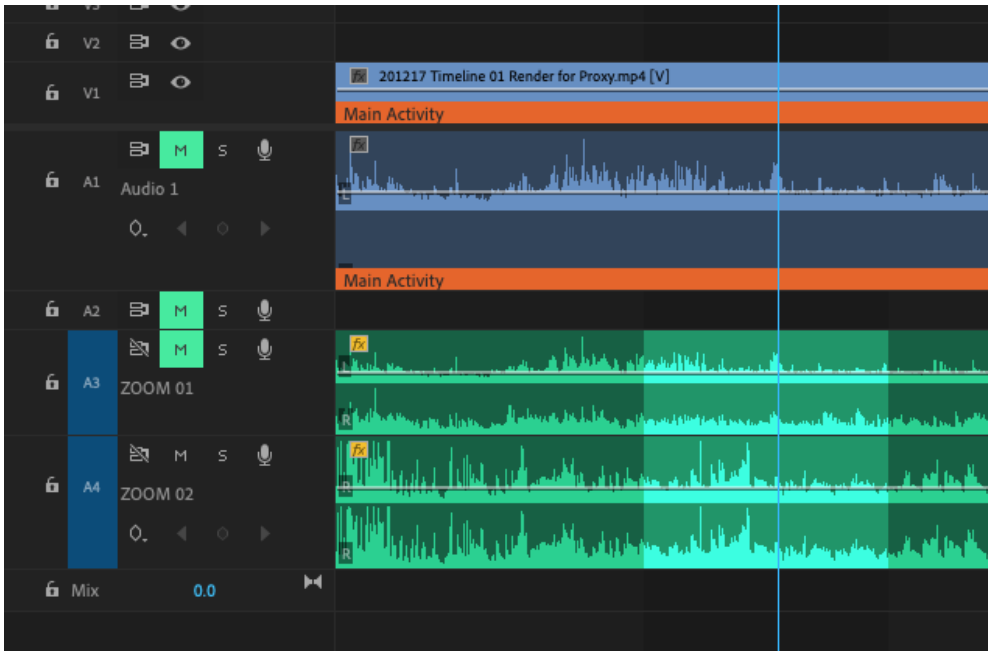


8. Photography displayed as it is captured - (note camera flash)

9. Animated elements show my response to the artists' conversations - in white

9.5.1 Audio Recording

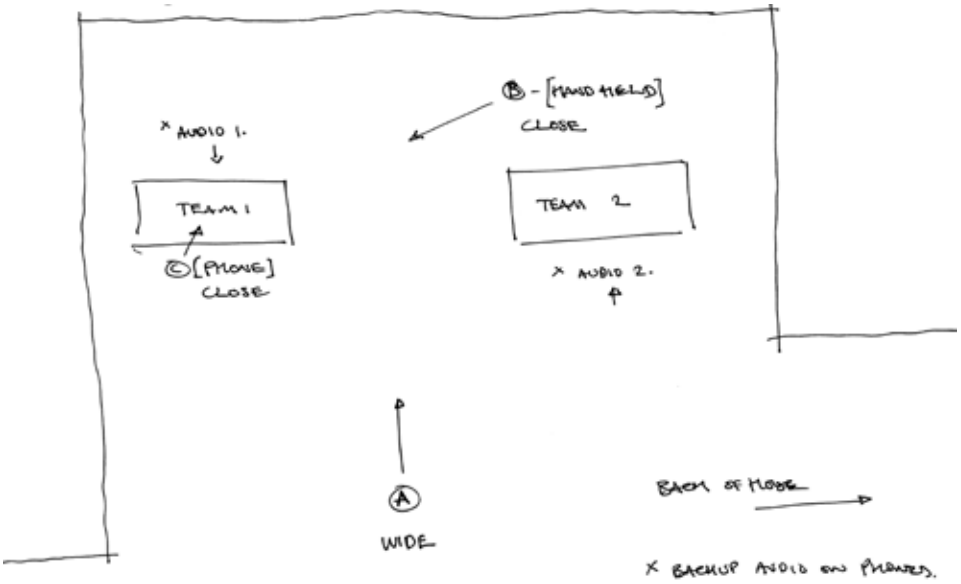
Audio tracks for both teams (ZOOM 01 and ZOOM 02 below) were synchronised with the video on the time line. I recorded in-line audio on each camera, which allowed me to use peaks in the audio files from each to synchronise them. Below, note the peak on the in-line audio from the video track, in blue, aligned with the peak on the audio from the ZOOM 01 audio track, in green



This simple assembly allowed me to record high-fidelity audio using two Zoom audio recorders, one on each table, without the requirement for participants ta have to wear individual microphones.

Using one condenser recorder for each Team, on each table, allowed me to isolate their conversations for transcription, as closed-caption files which I explain later.

9.5.2 Shot planning



The above shot-plan is what was used for the workshop at Shipley Gallery. Camera A (wide) records the ‘main‘ shot, locked on a tripod. This shot was cropped to display both teams clearly, left and right. This was a pre-planned shot to allow the graphic layout described in the next section. This gave me the opportunity to pan the two audio tracks, described in the previous section, left and right respectively - allowing the separation of the discussion on each table as a viewer, while allowing both recordings to be played back ‘in real time’ and concurrently.

Camera B is a hand-held camera, manned by a volunteer facilitator, who I asked to record ‘anything that caught his attention’ as the artists worked. This was synchronised in the same manner as the auto tracks. Likewise, Camera C, represents video recorded on facilitator’s phones.

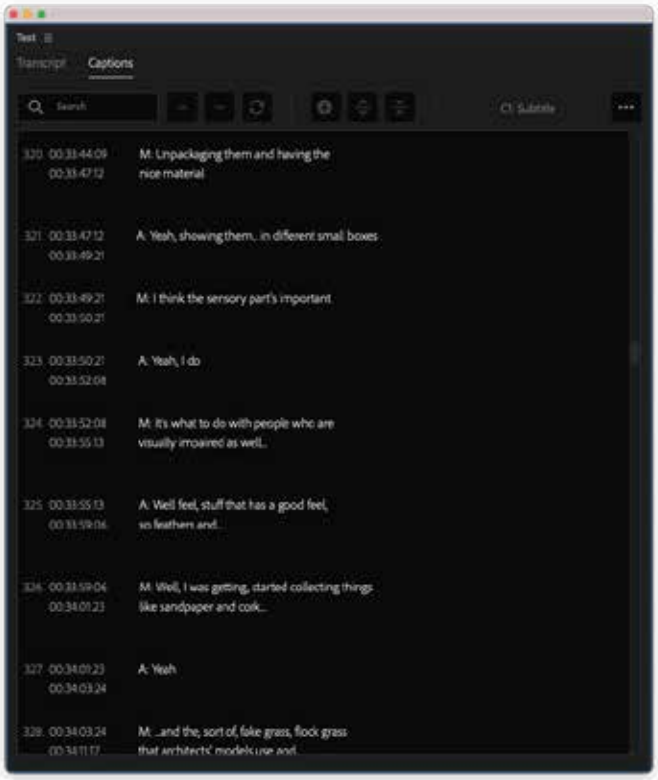
9.5.3 Grid overlay

Team 1 **[Camera A]**	**Team 2** **[Camera A]**
Team 1 **Additional Data** Captions	**Team 2** **Additional Data** Captions

For the majority of the video file, I used the above graphical overlay and layout. This layout clarified which data point related to which Team, without the need to label everything. To the viewer, it becomes obvious that everything in synchronized in time as, for example, you see a facilitator take a photograph as it appears on screen below them, in the same manner as we are used to with a closed-caption, where we assume it is representing what is being said in time.

This framework was unique to this particular workshop, but any similar activity could be thought through in the same manner, even with a different spatial layout, or more cameras etc, through planning the final layout as a first step from which to generate a shot-list.

9.5.4 Closed Captions



Transcribing audio within my video editing software, Preimere Pro, as a closed-caption file rather than just as a text file allowed me to take advantage of the time code as meta-data. As in the ethnographic analysis described in the previous appendix (9.4), this allowed the textual data from this workshop to be linked more easily with the original video and audio data. I found that this resulted in a richer record of my research activity than I had previously bee able to achieve through transcription alone.

As in the layout described overleaf, I also chose to display the closed-caption files for each team separately, and arranged in space in such a way that it was obvious who was saying what, even as teams talked over one another. This layout corresponded spatially to the panning of the audio channels described earlier too, e.g., Team 1 is displayed on the left of the screen, captions are on the left, and their audio channel is panned left.

9.5.5 Time code

Though a simple addition, my choice to include a visible, universal time code proved useful in a few of ways. Firstly, it gave me a point in the data to reference regardless of the type of data being referenced, video, audio, text, photo, animation, or artefact. Secondly, it gave me a simple mathematical means to synchronise the photography taken during the workshop (which I describe in the next section), by using each camera's Acrobat time code. Having synchronised a one or two photographs in time from each camera or phone used, by referencing a point in the video where a person can be seen taking a photo, I was able to work out how far each of them needed to be moved in time, all together, to be displayed as they were captured. In the example shown above for one camera, all the images were imported onto the time line at their original time codes, and then moved by 9:45:13 to line up perfectly with the video.

Lightroom Timecode	Premiere Timecode	Difference
9:55:33	0:10:20	9:45:13
9:46:59	0:01:46	9:45:13

9.5.6 Photography

The photography captured in time during the workshop was informal, and documentary in nature, however these photos were greater than the sum of their parts when contextualised in the video as a whole. Seeing the photo captured, as well as the person capturing it, and

the conversation the photographer is having at the time offers rare context to understand an image. Though this gives little artistic merit to the photography, it enriches it as a research method - pointing out what was important to a person at a given moment, and how they chose to represent that.

I also included photographs taken after the workshop itself, when I returned to my studio. These images were intended to add further clarification or to show details of the material artefacts, like the beautiful pieces made by Poppy and Betty below, generated in workshops as they were being imagined or made.



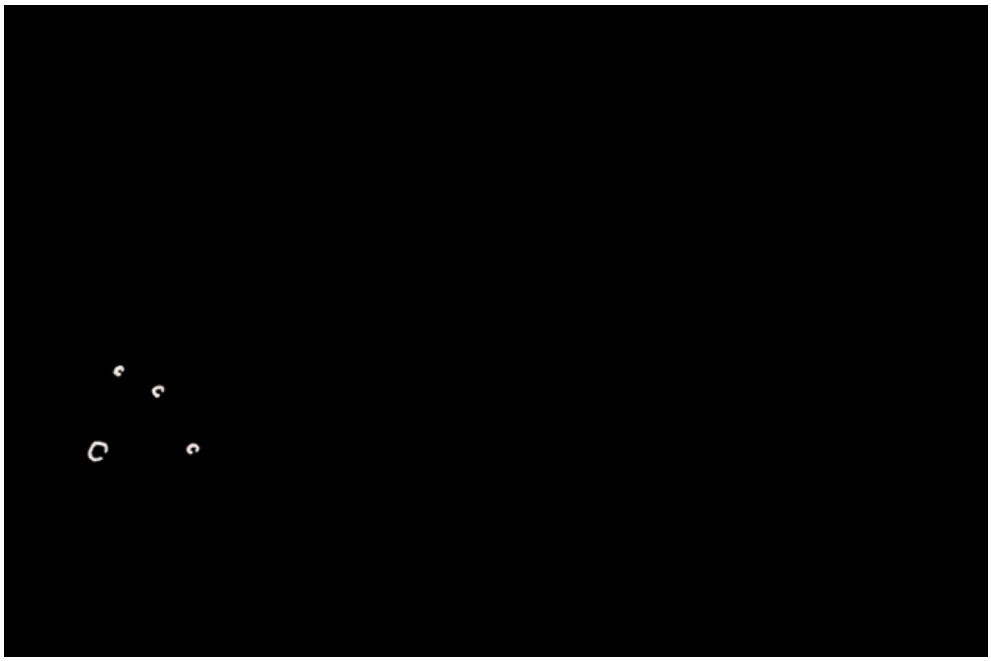
9.5.7 Animation

As with additional studio photography, I chose to annotate elements of the video which I felt lent themselves to it, with animated overlays. This element of the process was analytical in itself, having positioned the existing data types alongside each other in the manner described I was very much ‘in the data’, and felt comfortable to respond to elements of it through design practice.

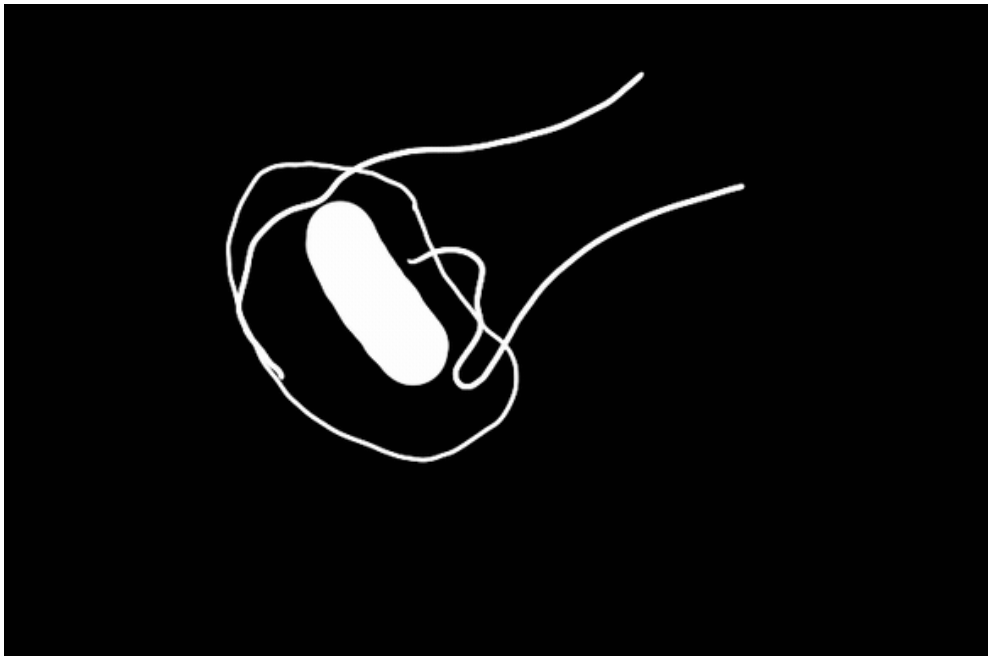
This was a light-hearted and dialogical process for me, allowing my hands to do a bit of thinking while I gave my brain a rest! However, these animations served a few functions. Firstly, they set the tone for my inquiry in the material language of my practice. When I presented these animated excerpts back to participants for their reflections, they served to illustrate the way I was thinking as well as the way I like to work, while we developed the ideas into the material outcomes from my second study (5.4.3). Secondly, these animations inspired some of those outcomes themselves. For example, the Megaphone (right) from 52 minutes into the workshop,inspired thinking about the quieter voices in the room, coupled with the animated story of a resident’s lost artwork (right), this inspired the development of the portfolios from my second study, to safe-keep and highlight Residents’ creative work with the artists. Overleaf, I will briefly desribe some of the techniques used to generate each animation included in my next appendix (9.6), where they can be viewed, in context, on-line.



Megaphone - Cel animation rotoscoped over 3D aniamtion



Tiny Dots - Cel animation, animated straight-forward



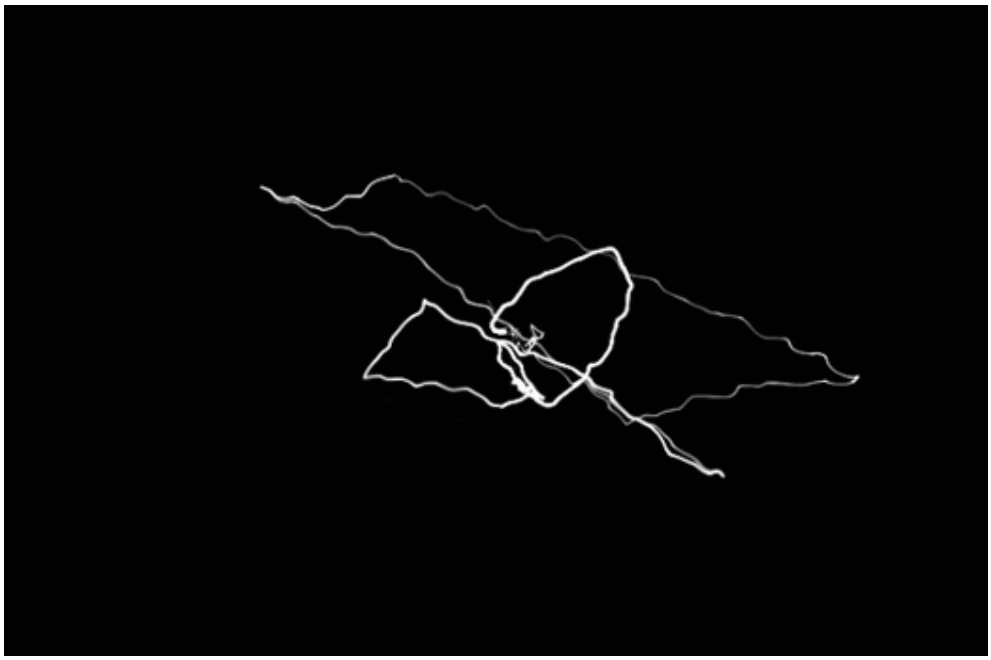
8-ball - Rotoscoped by hand, with smears



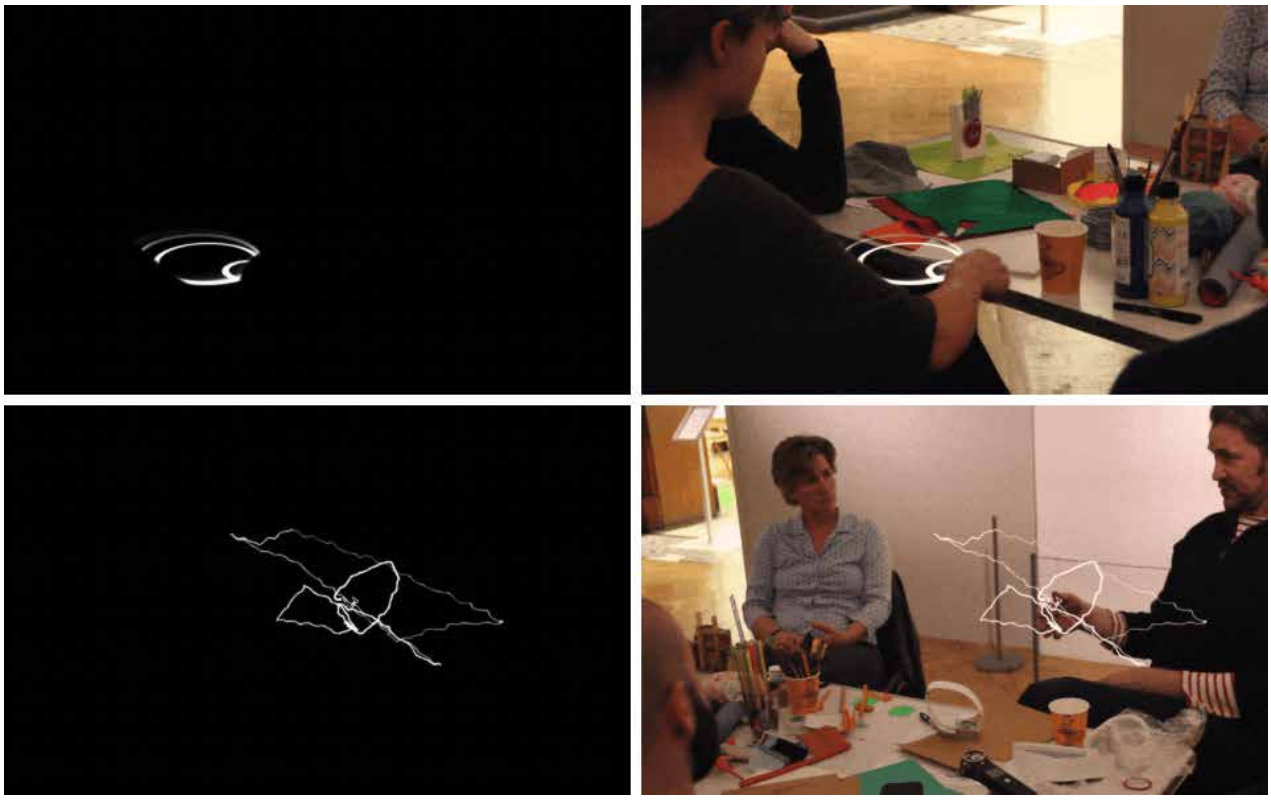
Army Band - Rotoscoped



Paintbrush Ripples - Motion-tracked, masked, mapped in 3D



Scribble - Motion tracked, paricle simulation



Appendix 9.6
Shipley Workshop Animations

henrycollingham.com/shipley-workshop-animations

Edited video excerpts and animated annotations from the Participatory Making Workshop held at Shipley Gallery, Gateshead as part of the second study of my thesis (5.0) resulting from the analysis method process described in the previous appendix (9.5).

Appendix 9.7
Ethics Application Example

An extract from the University Ethics application for my second study (5.0) co-authored by my research partners, including sample information sheets and consent forms.

Ethical Protocol & Code of Conduct

Doctoral Study: **A Design-Led Enquiry into Toolkits for Scaling Creative Engagement Workshops in Residential Care Homes.**

This design-led case study builds upon ongoing PhD research and participant observation undertaken in residential care homes, in partnership with Equal Arts.

This study aims to:

- Understand effective practices for artists facilitating creative-engagement workshops (CEWs) which support and promote the autonomy and self-expression of care home residents.
- Explore the ways that physical-material toolkits might support existing practices and techniques used in CEWs by artists from different creative disciplines working in different residential care homes.
- Build understanding of the potential for physical-material toolkits in scaling up the delivery of CEWs and evaluating the consequences of these toolkits across diverse care home settings.

Equal Arts are a leading creative ageing charity supporting older people and those living with dementia in Gateshead, Newcastle and across the UK. The research partnership with Equal Arts is key to this study to gain insight into their expertise working to improve the lives and well-being of care home residents through creativity.

Henry Collingham
PhD Candidate
henry.collingham@northumbria.ac.uk

Northumbria University Newcastle
School of Design
Squires 111
Northumbria University
NE1 8ST

Alice Thwaite
Co-Director
alice@equalarts.org.uk

Equal Arts
Swinburne House
Swinburne Street
Gateshead
NE8 1AX

G1: General Aims and Research Design (Mandatory)

Provisional Title (*Title of your research project*)

A Design-Led Enquiry into Toolkits for Scaling Creative Engagement Workshops in Residential Care Homes.

Outline General Aims and Research Objectives *State your research aims/questions* ***(maximum 500 words).*** *This should provide the* ***theoretical context*** *within which the work is placed, and should include an* ***evidence-based background****, justification for the research, clearly stated hypotheses (if appropriate) and* ***creative enquiry****.*

This ethics submission builds on ongoing PhD research that aims to explore the facilitation of creative engagement workshops (CEWs) in residential care homes, with a focus on autonomy and self-expression for care home residents. It has been noted that creative activities are an essential part of healthy ageing [1,15] and are shown "to provide both a personal sense of control and social support - two factors cited as important predictors of health outcomes in the elderly" [3]. However, due to the bespoke nature of these experiences they are often resource intensive [10]. Prior to this submission, in collaboration with Equal Arts (EA), I have been conducting participant observation and ethnographic fieldwork in a residential care home, to gain an understanding of how artists plan, run, and facilitate CEWs with residents. This initial fieldwork has focused on; an understanding of what artists and residents want to get out of running and participating in these workshops, how artists and residents work together, what elements of workshops are particularly successful or challenging, how difficulties are managed and negotiated, and what design opportunities are presented in relation to all of these.

This specific ethics submission focuses on the first design case study for the PhD research building on this initial ethnographic work. It specifically responds to observations from this initial fieldwork around the challenges that artists and EA face in relation to the scalable delivery of CEWs while ensuring they still promote bespoke, multisensory experiences for care home residents and different artistic practices. Specifically, it aims to:

1. Understand effective practices for artists facilitating creative-engagement workshops (CEWs) which support and promote the autonomy and self-expression of care home residents.
2. Explore the ways that physical-material toolkits might support existing practices and techniques used in CEWs by artists from different disciplines working in different residential care homes.
3. Understanding the potential for physical-material toolkits in scaling up the delivery of CEWs and evaluating the consequences of these toolkits across diverse care home settings.

In addressing these aims, this case will contribute; new insights into design research literature around developing toolkits for the scaling of and transferral of creative practices, knowledge related to how creative engagement might promote autonomy and self-expression in care homes, and add to the growing literature on how to conduct sensitive and contextually responsive design-led research in care homes.

G2: Research Activities (Mandatory)

Please give a detailed description of your research activities *Please provide a description of the study design, methodology (e.g. quantitative, qualitative, practice based), the sampling strategy, methods of data collection (e.g. survey, interview, experiment, observation, participatory), and analysis. Do sensitive topics such as trauma, bereavement, drug use, child abuse, pornography, extremism or radicalisation inform the research? If so have these been fully addressed?*

This case study will be structured around six stages of activity and data collection, building on the prior research noted above. It will be qualitative and experience-centred, utilising design-led enquiry.

1. I will continue to conduct participant observation and ethnographic fieldwork that is specifically focused on the planning, running, facilitation and dissemination of CEWs with residential care homes. Data collection will take the form of field notes, a research diary, sketches, and photographs, for engaging with each CEW that will broadly follow the following procedure. The CEWs run by EA artists in care homes will typically be about two hours in duration. Care home residents will typically be recruited to CEWs on the day, by care home staff. Artists will give a short introduction to whichever creative arts practice is the focus of each CEW, and then any materials needed for that practice will be handed-out to suit the needs of each care home resident. Artworks will be created by residents with stimulation from, and in conversation with, artists.

2. Following an analytic process described below, I will build on the resultant qualitative insights from the fieldwork by running a series of design workshops with the EA team and groups of artists that run CEWs. Techniques used in these design workshops will include; mind-mapping, swim-lane charts, and group sketching. These activities will be scaffolded around data, which may be photographs, text, or physical artefacts, highlighting any initial research insights. The inclusion of this data is intended to encourage participant reflection on those emergent themes as artists share their own comments and interpretations. Data from these design workshops will be those sketches, charts and mind-maps generated, as well as audio recordings for transcription, accompanying field notes, and photography.

3. The learning from the design workshops will lead to the development of an initial physical-material toolkit that will be evaluated in a residential care home. This builds on Montessori methods [6,11] for multi-sensory stimulation through the material language of design. This will involve multiple visits to a residential care home, where the inclusion of prototype toolkits in CEWs with care home residents will be used to further develop insight into the benefits and compromises associated with the use of those toolkits in this setting. Conducting participant observation in these CEWs will produce data in; the iteratively developed physical-material toolkits, a design workbook [9], photography, video footage, sketches, and field notes.

4. Following the initial deployment, I will plan and run a design workshop with a larger group of artists. This workshop will be an opportunity to share any initial insights from the use of physical-material toolkits in CEWs with artists representing a breadth of creative practices, all of whom run CEWs with EA. Participants in this workshop will be invited, in groups, to appropriate, hack, and play with, single-use, cardboard prototypes, to explore how they may use and adapt physical-material toolkits to better suit their own unique creative practices when running CEWs in residential care homes. This design workshop would be audio recorded for transcription, photography and video would also be captured throughout. Design materials generated will be preserved and documented, and field notes will be taken.

5. Following another analytic process (using the approach described below), I will build on insights from the larger group workshop to iterate the design of the toolkit prototypes. This will lead to a small batch production (target number 5) of final refined versions that will be handed over to 5 different artists who will use these as part of their ongoing running and facilitation of CEWs. After 2-3 sessions using the physical-material toolkit in each artists' CEWs, I will attend a session to conduct participant observation, and document ways in which the

toolkit has been included in, or excluded from any workshop activities, as well as any adaptations, customisations, or workarounds that have been made to the toolkits. Field notes, photography, and video will be captured from each of these engagements.

6. Artists who have chosen to participate in the deployment of physical-material toolkits in their CEWs will be invited to participate in a final workshop to share their experiences and insights from the use of toolkits in their practice. Artists will be asked to bring along each toolkit they worked with, to scaffold discussion; they will be photographed with the toolkit. This final workshop will also be audio recorded for transcription, and photos and videos will also be captured throughout.

Throughout these 6 stages, I will be pursuing a practice-led exploration of the design that is iterative and generative. This exploration will be documented through production of a design workbook, comprising annotated design materials, photographs, sketches, and notes.

Data Analysis

Data will be analysed using an original qualitative method that has been devised for the study and is informed by Braun and Clarke's Thematic Analysis [2] and a number of visual research techniques [4,7]. The analysis is framed by a phenomenological methodological approach that focuses on making sense of participants' experiences in the unfolding CEW practices. What renders it particularly distinct is that it aims to place analytic focus on the sensory nature of experience that includes - but does not give primacy to – the spoken (e.g. textual, transcribed) and visual (e.g. photographed) expression; it also affords analytic engagement with gestural and material interactions in the CEW context.

The method therefore enables a qualitative engagement with multiple forms of data, including visual data (i.e. photographs, hand-drawn sketches), video data (capturing gestural, physical interaction), transcripts of audio-recordings, plus physical-material objects, including found objects (e.g. minerals), artefacts (e.g. maquettes, sculptures), made from provided workshop materials (e.g. wool, clay, cardboard),

In a first stage of analysis, my ethnographic field notes will be hand-coded, to identify emergent research themes. Insights from this initial analysis will inform the design development of prototypes to be introduced into further ethnographic work undertaken in care homes.

Following this initial coding, a second round of analysis will include mixed data gathered from both design workshops and my ethnographic research. This will be engaged with altogether, organised according to the timecode of the unfolding procedure of a given CEW, and physically juxtaposed in front of me and/or my collaborators, The transcripts will be hand-coded alongside a phenomenological engagement with corresponding time-stamped photographs and video footage, In this stage, I will identify key words, phrases, gestures and instances of interaction that are significant for showing how the participants are, as individuals, expressing and making sense of their workshop experiences, as they unfold. Codes may reflect actual words used by participants, or describe my interpretation of their expression of experience. My engagement with the data and coding process will follow the temporal unfolding of the CEW activities and practices. Data from each workshop will be engaged with in this way in stage one. Initial hand-coding of the mixed data along a timeline will build my understanding of how research participants experience CEWs and toolkits in residential care homes.

The third stage of analysis will involve a 'second pass' through the mixed data, organised again along the timeframe of each CEW process. At this stage, I will be concerned to analyse how the participant experiences enable me to address my research questions and aims. I will develop interpretations of the captured activity and look for patterns in the codes from which I will generate new themes and sub themes [2]. In this process I will actively reflect on my own positioning as a researcher in the field and in relation to my accrued existing knowledge of participants' practices, my relationships with them, and my motivations as a designer and researcher to pursue the study. This stage is supported by collective analysis and sense making on the themes with my collaborators (supervisors).

A fourth stage involves a collaborative, co-creative analytic process with the original participants to refine the initial themes that have been generated. The method for this stage is informed by photo-elicitation techniques from Visual Sociology [4], whereby the presentation of themes is supported by – and directs – my selection of raw data to present and invite analysis of, again in a phenomenological and sensory mode. In a workshop context, participants are individually and collectively invited to make sense of initial insights and the data itself – in collaboration with each other and with me. Final themes are subsequently generated, supported by the original data extracts plus documentation of this third stage collective sense-making (in data forms described above).

M1: People and/or Personal Data

Tick if your work involves people and/or personal data?

Sample Groups *Provide details of the sample groups that will be involved in the study and include details of their location (whether recruited in the UK or from abroad) and any organisational affiliation. For most research studies, this will cover: the number of sample groups; the size of each sample group; the criteria that will be used to select the sample group(s) (e.g. gender, age, sexuality, health conditions). If the sample will include NHS staff or patients please state this clearly. If this is a pilot study and the composition of the sample has not yet been confirmed, please provide as many details as possible.*

Participant groups involved in this research:

1. The managers and staff of EA, based in their office at **Swinburne House, Swinburne Street, Gateshead.** Three key members of the organisation will be involved in design workshops, two co-directors, and one communications officer. Their involvement in the project is key to accessing EA's wealth of strategic knowledge in facilitating CEWs in residential care homes.

2. Artists that work with EA running CEWs in residential care homes, across the North East. Artists will be recruited to the study through EA. Two artists have already expressed an interest in being a part of the study, and initial prototype deployment, running CEWs at **Harton Grange Care Home, Boldon Lane, South Shields.** A larger group (target number 12) of artists will be recruited with EA for the larger group workshop described above, a smaller sample of which (target number 5) will partake the subsequent batch deployment and final workshop.

3. Residents in care homes partaking in CEWs with artists. The only criteria will be those people who are full-time, or part-time residents in a care home. Initially this sample group will be recruited from **Harton Grange Care Home, Boldon Lane, South Shields.** Subsequent groups of residents will be recruited from within

those residential care homes in which the artists who consent to participate in the study are running CEWs with EA.

Nature of data pertaining to Living Individuals *If you will be including personal data of living individuals, including still or moving images, please specify the nature of this data, and (if appropriate) include details of the relevant individuals who have provided permission to utilise this data, upload evidence of these permissions in the supporting documentation section.*

Data collected will include:

- Audio recordings of design workshops for transcription.
- Photographic and video documentation of interactions with physical-material toolkits.
- Visual documentation of the prototype physical-material toolkits generated through their use in care homes and design workshops.
- Anonymised text transcription of audio recordings will be used, this will not include any identifiable personal data (Names, ages, socio-economic-status etc.)

Details of any Special Category Data - If you will be collecting data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, trade union membership, data concerning health or data concerning a natural person's sex life or sexual orientation, please specify which categories you will be using.

Data collected will be qualitative and generative, with a focus on individuals' lived experience of CEWs in residential care homes. It is possible that data may contain reference to or information about a participant's health, but not directly or explicitly because the study is focused on other lines of inquiry.

Recruitment *Describe the step by step process of how you will contact and recruit your research sample and name any organisations or groups that will be approached. Your recruitment strategy must be appropriate to the research study and the sensitivity of the subject area. You must have received written permission from any organisations or groups before you begin recruiting participants. Copies of draft requests for organisational consent must be included in the 'Supporting Documentary Evidence'. You must also provide copies of any recruitment emails/posters that will be used in your study.*

As key research partners, recruitment of staff and artists will happen exclusively through EA during this study, with whom I have an established research partnership. Artists will be recruited internally by EA for voluntary participation in design workshops, and or participation in the deployment of physical-material toolkits.

Care home residents will be selected for CEWs with the help of care home staff on the occasion of each individual CEW. The informed consent of each participant in each CEW will be gained, as described below, prior to the commencement of CEWs.

Access to care homes will be arranged in partnership with EA, and we will only be working in care homes where an established relationship is already in place, the only addition being the physical-material toolkit itself and the presence of myself, undertaking participant observation and documentation during CEWs.

Details of remuneration *Will you make any payment or remuneration to participants or their carers/consultees? If yes: Please provide details/justifications. Note that your Faculty may have specific guidelines on participant payments/payment rates etc. and you should consult these where appropriate.*

Type of Consent

Alternative Consent Model

Alternative Consent Model

Type of Consent Details *Please include copies of information sheets and consent forms in the 'G6: File Attachments' section. If the study involves participants who lack capacity to consent, procedures in line with sections 30-33 of the Mental Capacity Act will need to be put in place. If you are using alternative formats to provide information and /or record consent (e.g. images, video or audio recording), provide brief details and outline the justification for this approach and the uses to which it will be put:*

EA staff & artists, and care home managers, will be given the relevant attached information sheet and asked to give their informed consent via the relevant attached consent form. Residents' informed consent will be co-signed by care home staff.

Proxy consent will be used to ensure that individuals unable to provide informed consent due to moderate to advanced dementia, a significant proportion of care home residents, are not excluded from the study. Murphy et al [12] synthesise different strategies used for maximising inclusion of people with dementia in qualitative research, informing their CORTE (COnsent, maximizing Responses, Telling the story, and Ending on a high) guidelines, which inform the design of this study.

Care home staff will be invited to read the relevant attached information sheet ahead of time and invited to ask any questions of the researchers before seeking the consent of residents. Information sheets and proxy consent forms will also be provided for any relatives of residents who care home staff feel are better placed to be consulted regarding consent.

Dewing [5] recommends that when working with people with dementia the researcher be physically present throughout the consent process, which I will be, to provide answers to any questions during the process. With each participant the process of the research will be fully explained, and any questions regarding the research will be answered at whichever point they arise. Every effort will be made to help residents understand what is happening, why, and that they are completely free to choose to participate, or not.

Following this, residents will be guided through the consent process by care home staff who have legal authority to give consent on their behalf using the attached information and consent forms, in accordance with British Psychological Society guidelines [13]. Staff will be acting in the interests of the potential research participant and should not be influenced by a conflict of interest [14].

One consent form will be provided for each member of staff before each CEW, allowing them to detail which residents were recruited to each CEW on the day, as well as an indication of whether verbal consent (VC) was given from the resident, or if consent was given by a relative (RC). The reason for doing this rather than one consent form per resident is a matter of practicality, given that the proxy consent will be offered by only one member of staff for each CEW. This

style of consent form is currently used by EA for the taking of photos in CEWs for use in marketing materials and social media.

Consent given on behalf of care home residents will be considered on an ongoing basis by paying careful attention to each individual's verbal commination, body language, tone, and facial expression. If at any point residents' assent, or willingness to participate [14] in CEWs is not forthcoming, then they will be withdrawn from the study without consequence.

Regarding those residents in care homes who lack capacity to consent, sections 30-33 of the Mental Capacity Act will be upheld, at all times, as follows:

- Research will be carried out in a manner which is non-intrusive, in accordance with section 30.

- This study aims to improve the quality and life and wellbeing of people living in residential care, who may specifically be living with dementia, the growing evidence base for the importance of creativity in dementia care [1,3,8,15] and this study's focus on the improvement of those CEWs taking place in residential care homes is in accordance with section 31.

- Care home staff, most likely activities managers in each care home, who have an ongoing care relationship with those people who may lack capacity to consent, will be nominated to consult on, and provide proxy consent for care home residents. If at any time care home staff advise that any participant is not showing willingness to take part in or would like to cease to take part in any part of the study, then I will ensure they are withdrawn without consequence. This is in accordance with section 32.

- Nothing will be done to, or in relation to, any participants to which anyone appears to object, except in the case of prevention from harm, or to reduce or prevent pain or discomfort. If any participant shows a wish to be withdrawn at any point during the study, they will be withdrawn immediately in accordance with section 33.

Researcher and Participant Safety Issues *If there any risks the research could cause any discomfort or distress to participants (physical, psychological or emotional) describe the measures that will be put in place to alleviate or minimise them. Please give detail of the support that will be available for any participants who become distressed during their involvement with the research.*

The risks for the researcher in the conduct of this study are considered minimal. There may be risks associated with working in care homes, specifically lone working. These risks will be mitigated by ensuring that I am always accompanied by a trained artist from EA or trained care home staff whenever working in a residential care home setting. Potential risk will be further mitigated through always let a colleague or family member know when I am visiting a care home to conduct this research.

While every precaution will be taken to ensure the study places no participants at risk, there is a potential for care home residents to become unsettled or anxious. In any such occasion, care home staff present will be consulted on the best course of action to ensure the safety, comfort, and happiness of all participants. It will be made clear to participants that they can pause or withdraw from taking part in the study at any time, should they feel any distress in response to the subject being discussed.

Data Gathering Materials Used *Provide a detailed description of what the participants will be asked to do for the research study, including details about the process of data collection (e.g. completing how many interviews / assessments, when, for how long, with whom). Add any relevant documentation to the 'Supporting Documentary Evidence' section of this form.*

1. During participant observation and ethnographic fieldwork focused on CEWs within residential care homes, artists and care home residents will be asked to conduct their CEW as normal. In my role as a participant observer, I will take part in the CEW with care home residents, occasionally taking photography. Each CEW will take (typically) 2 hours. Immediately following each CEW, I will generate field notes, add to a research diary, and produce any relevant sketches informed by my observations in each CEW.

2. Design workshops with the EA staff and artists that run CEWs will take place in EA's office in Gateshead. During these workshops EA staff and artists will be asked to contribute their experiences of running CEWs, and respond to selected mixed data gathered during my initial participant observation and fieldwork through a range of activities including; mind-mapping, swim-lane charts, and group sketching. These design workshops will be 90 minutes long each, three of these design workshops will be completed. Data from these workshops will be those diagrams, sketches, charts and mind-maps created during the workshops, as well as my accompanying field notes, and photography of those artefacts generated.

3. Following these design workshops, visits to a residential care home will take place, with the inclusion of prototype physical-material toolkits in CEWs with care home residents and artists. During these CEWs artists will be asked to include the physical-material tools into creative activities, introducing them into the context of CEWs. Again, I will undertake participant observation in these CEWs. Care home residents will be asked to comment on their experiences interacting with these physical-material toolkits, these comments will be documented as field notes, and accompanied by photography, video footage, and sketches.

4. A larger design workshop with a group of artists will take place in **Shipley Gallery, Gateshead.** Participants will be asked to appropriate, hack, and play with, single-use, cardboard prototypes, to explore how they may use and adapt physical-material toolkits to better suit their own creative practices when running CEWs in residential care homes. Participants will be asked to consent to audio recordings of discussions for transcription, photography and video would also be captured throughout with consent. This design workshops will run for approximately 2 hours. Design materials generated will be preserved and documented, and field notes will be taken.

5. Following this larger design workshop, a number (target number 5) of artists will be asked to incorporate a physical-material toolkit into CEWs in a residential care home setting in which they work. A physical-material toolkit will be given to each artist to use in 2-3 unfacilitated CEW. Following this period, I will attend a CEW session with each artist to conduct participant observation and document ways in which the toolkit has been included in, or excluded from any workshop activities, as well as any changes or workarounds which have been made to the toolkit. As in my initial participant observation, artists and care home residents will be asked to consent to the taking of field notes, photography, and video from each of these engagements, which will each last approximately 2 hours.

6. Artists who have chosen to participate in the deployment of physical-material toolkits in their CEWs will be invited to a final workshop to share their experiences and insights from the use of toolkits in their practice. Artists will be asked to bring along each toolkit they worked with, to scaffold discussion, as well as to be photographed. Participants will be asked to consent to audio recording for transcription, and the taking of photos and videos during this final workshop which will last for 90 minutes.

All data collected will be held by Northumbria University, as I am leading the study as principle investigator. Data collected may subsequently be shared with the staff of EA as core research partners, for the purposes of shared analysis, following anonymisation.

Data will be stored in a lockable office at Northumbria University, in accordance with University protocol.

Potential Ethical Issues *Please describe any potential ethical issues the project may have which are not covered above, and how you have sought to minimise these.*

H1: Children (i.e. under 18s) and Vulnerable Adults
Tick if your work involves children or vulnerable adults?

Describe what role if any parents/carers/consultees will take in the study, and how their consent will be obtained if required.

Care home staff will be used to consult on the consent of care home residents who lack capacity to consent, as described above.

DBS clearance required?
If you, or any members of the research team, will have regular contact on an individual basis with children or vulnerable adults as part of this research study, the relevant DBS (Disclosure and Barring Service) clearance may have to be obtained in advance. Check at the DBS website **https://www.gov.uk/disclosure-barring-service-check/overview** and then complete section M2 below.

Research Ethics Handbook link
Research Ethics Home link
Safeguarding Arrangements (available only to NU staff) link

M2: DBS Clearances Required
Person
Henry William Richard Collingham
Type
Basic Certificate
Reference
000894595323
Date of Check
14th March 2018

M3: Secondary Data

Tick if you will be using secondary data NOT in public domain

M4: Commercial Data

Tick if your work involves commercially sensitive data?

M5 Environmental Data

Tick if your work involves collection of environmental data?

H2: Human Tissue

H3: Animal Subjects

H4: Government Security Classifications

H5: Cultural Sensitivity

G3: Research Data Management Plan (Mandatory)

Anonymising Data (mandatory) *Describe the arrangements for anonymising data and if not appropriate explain why this is and how it is covered in the informed consent obtained.*

All participants names and specific personal information pertaining to specific locations will be anonymised in field notes, or in the case of audio recordings once transcribed. Once transcribed, audio recordings will be destroyed.

Storage Details (mandatory) *Describe the arrangements for the secure transport and storage of data collected and used during the study. You should explain what kind of storage you intend to use, e.g. cloud-based, portable hard drive, USB stick, and the protocols in place to keep the data secure.*

Transcriptions, photography, and video footage will be stored via Northumbria University's SharePoint server.

Physical artefacts and design materials will be stored in a locked office within Northumbria University.

Retention and Disposal (mandatory)

I confirm that I will comply with the University's data retention schedule and guidance.

Research Data Management link

Data Protection link

Records Retention Schedule link

G4: Research Project Timescale (Mandatory)

Proposed Start Date

Proposed End Date

G5: Additional Information

Externally Funded?

External Funder

Please give details of your 'other' funder

Agresso Reference

Franchise Programme Organisation

Please give details of your franchise organisation

NHS Involvement

Please give details of any NHS involvement

Clinical Trials

Please give details of any Clinical Trial(s)

Medicinal Products

Please give details of any Medicinal Product(s)

G6: File Attachments

Additional files can be uploaded e.g. consent documentation, participant information sheet, etc.

Please note: It is best practice to combine all documents into one PDF (This avoids the reviewer having to open documents individually)

G7: Health and Safety (mandatory)

I confirm that I have read and understood the University's Health and Safety Policy.

Health and Safety Policy link

I confirm that I have read and understood the University's requirements for the mandatory completion of risk assessments in advance of any activity involving potential physical risk.

Risk Assessment link

Please tick one of the boxes below...

There are PHYSICAL risks associated with the work and I have consulted the following approved risk assessments...

State Risk Assessment references and titles Specific risk assessments, where required, have been produced, approved and submitted to the Risk Assessment Library.

I will take the necessary action, adhere to any identified control measures, and consult with the central Health and Safety Team where necessary to manage the risks.

I can confirm that there are no physical risks associated with this project and so no risk assessments are required.

G8: Insurance (Mandatory)

I have read and understood the University Insurance guidance document (link below):

Insurance Guidance link

I confirm my work is covered by University Insurance. I confirm an insurance risk level of:

If your insurance risk level is HIGH please attach details of exceptional insurance coverage:

G9: Electronic Signature (Mandatory)

I confirm my supervisor has reviewed the contents of this document

I confirm I have assessed the ethical risk level of my work correctly and answered the above sections as fully and accurately as possible.

Full Name

Date

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[5] Jan Dewing. 2002. From ritual to relationship A person-centred approach to consent in qualitative research with older people who have a dementia. *Dementia* 1, 2 (2002), 157–171.

[6] K Ducak, M Denton, and G Elliot. 2016. Implementing Montessori Methods for Dementia in Ontario long-term care homes: Recreation staff and multidisciplinary consultants' perceptions of policy and practice issues. *Dementia* (2016). DOI:https://doi.org/1471301215625342 [pii]

[7] Margolis Eric and Luc Pauwels (Eds.). 2011. *The Sage handbook of visual research methods*. SAGE, Los Angeles.

[8] Maria A. Luján Escalante, Emmanuel Tsekleves, Amanda Bingley, and Adrian Gradinar. 2017. 'Ageing Playfully': a story of forgetting and remembering. *Des. Heal.* 1, 1 (2017), 134–145. DOI:https://doi.org/10.1080/24735132.2017.1295529

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[12] Kathy Murphy, Fionnuala Jordan, Andrew Hunter, Adeline Cooney, and Dympna Casey. 2015. Articulating the strategies for maximising the inclusion of people with dementia in qualitative research studies. *Dementia* 14, 6 (2015), 800–824. DOI:https://doi.org/10.1177/1471301213512489

[13] Profssional Practice Board. 2008. Generic Professional Practice Guidelines. *Br. Psychol. Soc.* 2nd editio, February (2008), 1–40. Retrieved from http://www.bps.org.uk/sites/default/files/documents/generic_professional_practice_guidelines.pdf

[14] Susan Slaughter, Dixie Cole, Eileen Jennings, and Marlene A Reimer. 2007. Consent and Assent to Participate in Research from People with Dementia. *Nurs. Ethics* 14, 1 (2007). DOI:https://doi.org/10.1016/S1728-869X(11)60001-4

[15] Alice Thwaite. 2017. *Growing the Creative Ageing Movement : International lessons for the UK*.

EQUAL ARTS WORKSHOP TOOLKIT
RESIDENTS INFORMATION SHEET

Hello!
We are conducting research into arts workshops in care homes, and we would love you to participate in our research.

This will involve Henry Collingham, a PhD researcher at Northumbria University, coming along to observe, and participate in, these workshops, with your consent.

Who are we?
Henry is researching wellbeing and quality of life for people living in care homes through design.

Why are we doing this?
We would like to learn more about arts workshops in care homes, see what works well, and find opportunities to make them even better.

What will I be asked to do?
You will be asked to allow Henry to take part in workshops and make some observations, this includes taking notes, recording audio and video, and taking photographs.

Do I have to take part?
Absolutely not. Deciding not to take part will not affect your involvement with Equal Arts in any way, nor will your decision not to partake be noted or documented.

What data is being collected?
Written notes, audio, sketches, video, and some photographs will be recorded from each workshop.

Will the information be confidential?
All personal information will be anonymised to keep recorded information confidential.

Will I be able to change my mind about taking part?
Yes, anyone can change their mind about participation at any point leading up to, during, or following workshops.

What are potential benefits of taking part?
The design of new tools for artists working in care homes, carrying out work which enriches people's lives through creativity.

What are the potential downsides of taking part?
There is a potential for anyone to become unsettled or anxious, in any such occasion care home staff will be asked what the best course of action is to ensure the comfort, and happiness of all participants.

How will data be store, and how long will it be stored for?
All data collected will be held by the university, following protocol and GDPR regulations.

What are my rights?
All participants in this study have a right of access to a copy of the information comprised in their personal data.

If you have any further questions about the study, then please get in touch with Henry or ask a carer.

CONTACT INFORMATION:

Researcher
Henry Collingham
Northumbria School of Design
Room 120, Squires Building, 2 Sandyford Rd
Newcastle upon Tyne, NE1 8SB

07492 022533

Data Controller: Northumbria University
Duncan James
Data Protection Officer at Northumbria University

Northumbria University Research Ethics
Jennifer Stergiou
Director (Research and Innovation Services)

Equal Arts Workshop Toolkit – Resident's Consent Form

Statement of consent	Tick
1. I have read and understood the information sheet provided.	
2. I have had any questions about the study answered, to my satisfaction, by the principle investigator.	
3. I understand that all data collected from the workshops will be stored securely by Northumbria University	
4. I agree that the anonymized data that I contribute will be archived at Northumbria University and may be reused by other researchers in the future.	
5. I understand that the information collected for this study will only ever be used for research purposes.	
6. I understand that my name, or any other personally identifiable information, will not be used on any documents about the research.	
7. I understand that I can request any data to be withdrawn during or after the workshop is complete, and up to 15 days after each workshop.	
8. I understand that I can ask questions at any point during or after the discussion about any aspect of the research.	
9. I understand that I can choose to withdraw from the study and any associated data from the study at any time without explanation.	
10. I agree to be audio recorded during the workshop.	
11. I agree to be video recorded during the workshop.	
12. I agree to be photographed during the workshop.	

Researcher's Name [in block capitals]

Researcher's Signature

Date

Care Home Staff's Name [in block capitals]

Care Home Staff's Signature

Date

Resident's Name [in block capitals]

Resident's Signature

Date

EQUAL ARTS WORKSHOP TOOLKIT

EQUAL ARTS STAFF AND ARTIST INFORMATION SHEET

Hello!

We are conducting research into Equal Arts' creative-engagement workshops in residential care homes, and we would love you to help by allowing us access to [a number of] of the workshops you are running as an artist working with Equal Arts.

This will involve Henry, a PhD student in the School of Design at Northumbria University, coming along to observe, and participate in, [a number of] your workshops to learn more about your practice.

Who are we?

This study is led by Henry Collingham, a product designer whose PhD research is focussed on improving wellbeing and quality of life for people living in care homes through design innovation.

Why are we doing this?

Learning more about artists' practice of running workshops to support the creativity and self-expression of care home residents, and the experiences of those care-home residents is a key line of enquiry.

We would also like to identify design opportunities to develop tools that could potentially make the delivery of workshops in care homes even better. We believe that there are potentially significant benefits in the inclusion of physical-material tools into your creative workshops, for both you as artists running these workshops, and residents in care homes as participants.

What will you be asked to do?

Basically, running your workshop in a care home as usual. You will be asked to allow Henry to come along to [a number of] your workshops in the role of 'participant/observer' He'll be taking part in, or helping with, the workshop while also making some observations.

Do you have to take part?

Absolutely not. We are asking artists to invite us into their workshops voluntarily. Deciding not to take part will not affect your work in any way, nor will your decision not to partake be noted or documented.

What data is being collected?

With the consent of both yourself, and the care home residents in the workshop, written field notes, sketches, and some observational photographs and videos will be recorded from each workshop, as well as the recording of audio for transcription.

Will the information be confidential?

All personal information (Names, ages, specific locations etc.) will be anonymised to keep recorded information confidential. All digital data generated will be stored securely by Northumbria University. Data may be used in academic publications, but all identifying information (such as your name) will be removed to maintain privacy.

What if you don't want to have your photo taken?

That's absolutely fine, no photographs with your likeness will be taken if you decide. Furthermore, all photographs taken in your workshops will be shown to you for your approval before they are included into the study.

What if you don't want to be recorded on video?

Again, that's absolutely fine, no video with your likeness will be taken if you decide. Furthermore, all video footage taken in your workshops will be shown to you for your approval before they are included into the study.

Will you be able to change my mind about taking part?

Yes, you can change your mind about participation at any point leading up to, during, or following workshops. You can let us know in person, or via email up to 15 days after the workshop. In this case all of the data collected in your workshop will be removed from the study and destroyed.

What are potential benefits of taking part?

This study hopes to inform the design of new tools for artists working in residential care homes, carrying out essential work which enriches people's lives through creativity.

This is the first study of Henry's 3-year PhD, which was has a broader aim to improve the design environment in which people with dementia live, with an aim to improving their quality of life and wellbeing. Your contribution to this growing field of knowledge will be an invaluable asset to this research and will allow you to add your own experience to the ongoing conversations in dementia research.

What are the potential downsides of taking part?

As with all work involving vulnerable populations, there are potential risks involved working in care homes. While every precaution will be taken to ensure the study places no participants at risk, there is a potential for care home residents to become unsettled or anxious, in any such occasion care home staff present will be consulted on the best course of action to ensure the safety, comfort, and happiness of all participants.

How will your data be store, and how long will it be stored for?

All data collected will be held by the principle investigator in a lockable office at Northumbria University, in accordance with University protocol and GDPR regulations. Data collected may subsequently be shared with Equal Arts as core research partners, for the purposes of shared analysis, following anonymisation.

Your data will be stored for the duration of the study +5 years, after which it will be deleted.

How will you be kept updated on the outcomes of this research?

Research insight and themes, as well as any design opportunities identified will be shared with Equal Arts. If any products are developed following findings from this study prototypes and images will also be shared with Equal Arts.

Furthermore, if you would like to be involved in the development, deployment, and testing of these designed products as this study develops then you are more than welcome to do so. For more information on this stage of the study, please contact the principle investigator, Henry.

What are your rights as a participant in this study?

All participants in this study have a right of access to a copy of the information comprised in their personal data (to do so individuals should contact the principle investigator, a right in certain circumstances to have inaccurate personal data rectified; and a right to object to decisions being taken by automated means.

It should be noted that some of these rights are subject to derogations for research-related activity. For example, where giving access to data or rectifying data may "render impossible or seriously impair" the scientific research, then the University may refuse to comply with these rights. However, this would be considered on a case by case basis in close liaison with the University's Data Protection Officer.

What happens next?

If you would like to take part then you can either get in contact with Henry directly at the address below, or through Equal Arts to identify an appropriate workshop for a visit.

If you have any further questions about the study then please get in touch with Henry, as principle investigator.

CONTACT INFORMATION:

Principle Investigator
Henry Collingham (Principal Investigator)
Northumbria School of Design
Room 120, Squires Building, 2 Sandyford Rd
Newcastle upon Tyne, NE1 8SB
07492 022533
henry.collingham@northumbria.ac.uk

Data Controller: Northumbria University
Duncan James
Data Protection Officer at Northumbria University
dp.officer@northumbria.ac.uk

Northumbria University Research Ethics
Jennifer Stergiou
Director (Research and Innovation Services)
jennifer.stergiou@northumbria.ac.uk
0191 227 4908

EQUAL ARTS WORKSHOP TOOLKIT – EQUAL ARTS STAFF AND ARTIST CONSENT FORM

	Statement of consent	Initials
1.	I have read and understood the information sheet provided.	
2.	I agree to take part in this research study.	
3.	I have had any questions about the study answered, to my satisfaction, by the principle investigator.	
4.	I understand that all data collected from the workshops will be stored securely by Northumbria University	
5.	I agree that the anonymized data that I contribute will be archived at Northumbria University and may be reused by other researchers in the future.	
6.	I understand that the information collected for this study will only be used for research purposes, and that my consent is conditional upon Northumbria University complying with its duties and obligations under the General Data Protection Regulation 2018.	
7.	I understand that my name, or any other personally identifiable information, will not be used on any documents about the research.	
8.	I understand that I can request my data to be withdrawn during or after the discussion is complete, and up to 15 days after each workshop.	
9.	I understand that I can ask questions at any point during or after the discussion about any aspect of the research.	
10.	I understand the risks working in a care home setting, and the potential to cause distress to vulnerable adults. I understand in any such occasion care home staff present will be consulted on the best course of action to ensure the safety, comfort, and happiness of all participants.	
11.	I understand that I can choose to withdraw myself and any associated data from the study at any time without explanation.	

Audio Recording
I give my consent for researchers to record audio during the workshop, which will be transcribed before being deleted.

Please tick the box if you give consent for the recording of audio. ☐

Video Recording
I give my consent for researchers to record video footage during the workshop, in which I or my likeness may appear. I understand that these images may be published in academic papers, of the dissemination of this research study.

Please tick the box if you give consent for the taking of video. ☐

Photography
I give my consent for researchers to take documentary photographs during the workshop, in which I or my likeness may appear. I understand that these images may be published in academic papers, of the dissemination of this research study.

Please tick the box if you give consent for the taking of photographs. ☐

Name: [in block capitals]

Signature: Date:

Researcher's Name: **Henry Collingham**
Researcher's Signature: Date:

Appendix 9.8
Interview Schedule

Example schedule for participant interviews from my final study (6.0)

Intro

- Firstly, Thank You
- Consent to record video and audio
- The aim of this study is to explore meaningful ways People with Dementia can impact the design of objects around them, with the aim of simple, joyful acts of creativity resulting in designed objects which reflect a bit of each individual through their choices.
- All identifiable information about other people, like places or names will be removed from the data before it is transcribed.
- The interview should last about an hour
- Today, you're going to be designing a cup, a plant pot, and a lamp.
- I'll ask you to share a photo of your finished designs at the end of the interview.
- We will do the activities one at a time, and I'll ask you some questions as we go.
- Each activity would be facilitated in person in a care home, this setup is just for covid-safety.
- There are no right or wrong ways to explore these activities.
- At the end of each activity, I'll ask you specifically about 'your thoughts about each activity, where I'd like you to think about the interaction the amount of freedom you had to make creative choices, and the materiality of the activity
- Time for you to ask any questions at the end, or at any time.

Cups

In this activity you can design a cup by pairing up the cup-bodies with the cup-handles provided in the case.

Your finished cup will then be made out of porcelain and delivered to you to keep.

Cup Questions:

- How do you take your tea?
- When do you like to drink tea?
- Who do you think would use the different types of cups?
- How do you think this activity could be used in a care home?
- What do you think about the existing cups in care homes?
- What are your thoughts about this activity?

- Interaction:
- Creative freedom:
- Materiality:

Plant Pots

Get out the brown folder, and plug-in the light box, if you like.
In this activity you can design a plant pot, by arranging paper shapes on the light box provided to form the outside of a plant-pot.
The finished plant pot design will be made out of Jesmointe and can be made with any colour you like.

- How do you feel about house plants?
- How do you think this activity could be used in a care home?
- What do you think about plants and plant pots in care homes?
- What are your thoughts about this activity:
- Interaction:
- Creative freedom:
- Materiality:

Lamps

The lamp-making activity uses the set of wooden disks, and the wooden stand.
In this activity you can design the body of a lamp, by building up disks on the holder.
The finished lamps will be made out of Jesmointe and can be made with any colour you like.

- How do you feel about table lamps at home?
- How do you feel about table lamps in a care home?
- How do you think this activity could be used in a care home?
- What are your thoughts about this activity:

- Interaction:
- Creative freedom:
- Materiality:

Appendix 9.9
Codebook Extract

Example codes generated during my final study for analysis (6.0)

Study 03 Coding Notes

I transcribed the audio as a closed-caption file onto each video recording, allowing both audio and visual data to be linked, and reviewed simultaneously. I then followed the subsequent six steps of a Thematic Analysis; familiarisation, coding, finding themes, reviewing themes, defining and naming themes, and finalisation (Braun and Clarke 2013).

Initial Themes:

1. Aesthetic Experience
2. Power ∆ Balance
3. Individualisation v Homogenisation
4. Methods of Making
5. Creative Context
6. 'My Ultimate…'
7. Ability and Disability

What did I do?

- Synchronising audio and video recording
- Transcribe audio as timestamped Closed Captions file
- Export Captions file as a text document
- Read through transcript, initial coding with a pen and highlighter, while re-watching the video with captions
- Initial sorting of codes; re-watch while colour coding codes into themes
- Name the themes
- Arrange themes into codebooks digitally (below) – colour coded to match hand coding
- Re-read themes, referring back to video file for context, to start to refine codes and refine themes
- Refined and renamed themes while writing them up in the report presented.

Codebooks

1. Aesthetic Experience

1.1 Aesthetic Experience: Cups

Poppy 07:22

Yeah. They don't feel that like, luxurious like, you'd want to hold on to them you know sometimes with a cup in like, a nice trendy cafe and you feel almost like it feels like a treat and you're like 'ooh!' I've feel like the experience in the care homes is like, the opposite of that where the cup is really like a builder's tea cup or like either a builder's mug, or like a tea cup.

Poppy 18:46

This white material is lovely to hold, it's so smooth!

Betty 04:08

I'm enjoying the smoothness inside of all of them in relation to the outside. That's really nice... and I like the fact that really quite thin and I feel like I'm not going to snap it. But it's got that lovely bone China feel about it.

Betty 05:34

Oh, I've got lots to say about cups and care homes. I think the first thing I'd like to say is they're aesthetically very un-pleasing. They usually like a beige.... And they've got maybe got like, a red, or a green rim around the outside a, just sort of, line.

…

They're short and they don't hold heat in very well, so you have to drink it straight away, or it gets really cold. And they're all the same! So, you've got tiny, tiny little women with very small fingers, trying to hold the same cup as, say, somebody who's got a really big hand or

maybe arthritis. There's no kind of, I think the words differentiation between - the cup handle in particular.

Betty 11:16
Then, I mean, just as this is in front of me. I can imagine very well. People who we have known, [a resident] [at a local residential care home] for example, who's got you know, issues with her eyesight would have a hard time just feeling all of these

Betty 11:40
I'm quoting research that I have no idea about, it's something I've seen at some point in my life, and gone 'Ooh that's a really good idea.' And, it's about the colour of the cup, and, either it's different on the outside of the inside, and that helps people with your visual impairments to be able to aid where their cup is, for example.

…And what is gorgeous about that (handmade pottery processes) is I don't know if you've ever made any pottery before and then you've actually painted your glaze on. It's great, because what you think you're putting on and what comes out of the kiln at the end is totally different.

Betty 15:36
The interaction? Yeah, yeah, I think it, from a physical point of view, I think this whole thing here in front of me, invites you to feel it. Like imagine this, you've got a blank table, and you come in and go 'Ooh it's the tea trolley!' Because actually, you know, you've got them silver bits, the gold bits, on the side, placing this down there's ceremony to that, I might even show my wrist, like a Geisha! And so immediately, there's a focus. Look at this, 'Ooh, what's this?' Well... you know, and then you start passing these things around? What do you feel about

this? What do you think about that?

Betty 18:28
Well, I think I want to be mentioned about the brass here it's shiny and it's enticing and it's it's it evokes that kind of tea, tea trolleys and exciting things like your supper coming on in on a tray, and toast lovely. The magnets work for some of them, like this one is relatively light so actually when I put this on it can hold. When I tried it with a bigger one, I think it was this one...

Betty 19:29
And that probably be something I'd say at the beginning of the session. Even if there wasn't lots of them and gonna smash them on the floor like a Greek Wedding. You know? Yeah. This is pleasing. And I think folks will find that pleasing.

Betty 19:48
Yeah, brilliant. I love that. I think it's it's, you want to explore it. You want to get in there when you see it. You want to feel everything. Like when I was first presented with it I just had to do it quite systematically.

Appendix 9.10
Making In The Moment: Insight from Participatory Arts for Co-Design Practice in Dementia Care Settings.

Collingham, Henry, Abigail Durrant, and John Vines. 2020. "Making In The Moment: Insight from Participatory Arts for Co-Design Practice in Dementia Care Settings." In Proceedings of the 6th International Conference on Design4Health, edited by Kirsty Christer, Claire Craig, and Paul Chamberlain, 78–85. Amsterdam, NL. https://research.shu.ac.uk/design4health/publications/2020-conference-proceedings.

This conference paper was published at Design4Health 2020 to disseminate learning from my first study (4.0) and has been included to enable the reader to be fully informed of the contribution to knowledge actually made during my doctoral research.

NB The following page numbers are from the conference proceedings.

MAKING IN THE MOMENT: INSIGHT FROM PARTICIPATORY ARTS FOR CO-DESIGN PRACTICE IN DEMENTIA CARE SETTINGS

Henry Collingham, Abigail Durrant and John Vines

Northumbria University, UK

Abstract

Design for dementia literature calls for greater degrees of personalisation and participation for people living with dementia, while acknowledging that 'alternatives are also needed to the one-on-one approaches, often used in the development of highly personalized outcomes' (Kenning 2018, 2).
We respond to these provocations by reporting on a qualitative study in a care home setting that informed Inclusive Design directions for dementia care.
The professional practice of conducting participatory arts workshops in this setting was empirically observed and analysed, to deliver transferable insights that may advance co-design methodology for dementia care design contexts.
This paper presents an autoethnographic account taken from a year-long participant observation in a residential care home in Northern England, by a designer volunteering for a creative ageing charity that runs participatory arts workshops. In presenting the designer's account about his involvement in the development of a large-scale participatory artwork with this charity, and his facilitation of 30 workshops, the paper captures empirical insight and learning from working alongside experienced creative professionals.
We critically reflect on this insight, discussing its relevance to co-design practices in residential care contexts, and calling for designers to draw their strategic focus away from identifying notions of 'good; or 'bad' design outcomes, and towards celebrating the act of creative intent and voice-giving through co-design practice. We offer methodological insight for Design4Health that is grounded in a recognition of the importance of authorship and autonomy of people with dementia: the facilitation of creative expression should ensure that there is reciprocity within co-design methods, between those who are involved with creative practice in the form of one-to-many, or many-to-many.

Keywords: dementia, co-design, participatory arts, care home, creative ageing

Introduction

We report on an autoethnographic account following a year-long participant observation by the first author in a residential care home specialising in advanced dementia care. This work was conducted alongside professional participatory artists from Equal Arts, a creative ageing charity who have been delivering arts workshops in care homes for over 30 years.

We critically reflect on how insights from this participatory arts practice may advance co-design methodology for dementia care contexts. Drawing on this case, we highlight three key challenges for design research, relating to the value of participatory arts practice in dementia care contexts. These challenges are to: (1) accommodate a greater focus on the moment of making and intentionality in co-creative practice; (2) recognise the key role of facilitators to creative expression, appreciating how this social practice has impact beyond each participatory activity; (3) understand the importance of increased personalisation in design practice while confronting the reality of the scale of deployment needed to benefit those living with dementia.

Background

Dementia and The Arts

With no cure for dementia, UK policy making focuses on finding ways for people to live well with the condition (NHS 2018) primarily following the framework of Person-Centred Care (Edvardsson, Winblad, and Sandman 2008). There is a substantive body of practice and research in the field of dementia and the arts which support such person-centric approaches (All-Party Parliamentary Group on Arts Health and Wellbeing 2017).

Arts practice has been empirically shown to aid communication, expression, confidence, social participation, and a sense of freedom (Zeilig, Killick, and Fox 2014). Benefits to quality of life are observed through the act of participatory creative practice, with a broad range of arts therapies in dementia care reinforcing 'sense of control, life meaning, and personal satisfaction' (Cowl and Gaugler 2014, 308). Arguably, it is the job of the facilitating artist in a dementia care setting to enable each person 'to do what otherwise he or she would not be able to do, by providing those parts of the action - and only those - that are missing' (Kitwood et al. 2019, 109).

Co-design practice for People with Dementia

Design literature has called for greater personalisation and participation to allow people living with dementia increased creative expression: 'Design [which] allows for individualisation is likely to be useful for people with dementia and acknowledges the multiplicity of experiences which people with dementia and their families may face in the course of the condition.' (Morrissey, McCarthy, and Pantidi 2017, 1328). Craig calls for designers to 'see individuals' creativity and resilience, have confidence in design … to offer individuals structures and vehicles through which to be heard.' (Craig 2017, 62). Hendriks et al note the benefits of creative expression and acknowledge the need for designers to build embedded relationships in care settings (Hendriks et al. 2018, 59–60). Arguably, the need for embeddedness conflicts with the call for these design projects to be adopted at a scale with the potential to benefit the growing number of people living with dementia (Zeisel 2010; Wey 2006), especially those most vulnerable who are living in under-funded residential care homes (Thwaite 2017).

In presenting this study that engages with professional participatory artists' practice, we contextualise calls for design research to push further towards forming empathetic, creative collaborations with residents (Swaffer 2016). Our insight builds on work that discusses the heightened emotional

experience of living with dementia through creative practice (Killick and Craig 2012; Kitwood et al. 2019) and that acknowledges its potential to influence social dynamics within the care home (Bratteteig and Wagner 2012). We also wish to highlight challenges for designers delivering greater personalisation to people living with dementia in light of the shortage of resources in the care sector.

The Study

Each workshop involved 5 to 20 residents, one or two professional arts practitioners, activities coordinators, and the first author in a dual role as Design Researcher and Volunteer Facilitator. Thirty workshops were documented over a year-long period in which a large-scale collaborative textiles artwork was produced with residents.

Our key research questions follow.

1. How can we design to deliver greater degrees of personalisation and participation for people living with dementia at a scale commensurate with the context?

2. How can techniques from professional participatory arts practice translate into co-design practice in a dementia care setting?

Methodology

Or approach was informed by Sensory Ethnography (Pink 2015), which allows verbal and non-verbal communication to be considered equally. Pink's methodological focus on the relationship between the material and emotional experience of selfhood guided particular a focus on sensorial qualities and interactions when documenting field notes. This was valuable in the arts workshops, which were rich in multi-sensory stimuli, including music, aroma, textural exploration, food and drink, embodied movement and dance alongside visual activities.

Participant Observation enabled embedded research practice, for building relationships over time within a community of residents. Interpersonal dynamics were focused on in workshops alongside the needs and expressions of individuals.

Field notes were interpretatively coded following completion of the field work. Notes and codes were then re-coded using Ethnographic Analysis (Ghodsee 2015) to form an autoethnographic account, extracts from which are presented here.

Ethics

This research received ethical approval from Northumbria University and was conducted within the Ethical Working Guidelines of our partner Equal Arts. All names, places, and identifying details within the account presented have been pseudonymized.

Autoethnographic Account

The following vignettes have been chosen from the first author's autoethnographic account to elucidate key methodological insights. Note that the authorial voice shifts to the first author in this section. Key moments have been selected to demonstrate the artists' methods put into practice.

Extract 1

Emily and Pip had initially been asked to decorate a fabric starfish that lay untouched beside them, but they had instead taken control of the direction of their work.

Pip leaned in to watch as Emily moved two pieces of fabric from position to position on the table in front of them like a chess game. They used a fabric maple-leaf Pip had previously made, with deep autumn colours chaotically scribbled onto its spiky form and a plain offcut of peach-coloured felt.

Emily used deliberate gestures to describe the relationship between the two pieces, moving her hands in unison to carve a neat circle in space around them to make her meaning clear, something that would often elude her in strictly verbal communication.

‘Similar? Balanced? Opposing? Unified? Playful?’ I suggested.

‘They’re nice, the way they play together.’ She nodded.

They continued experimenting throughout the workshop, discussing the layout intensely; adding, and amending, elements they found. Eventually settling on a composition both were satisfied with, showing it off carefully.

Seeing their pride, I asked what they thought should happen next.

‘Ooh, you could see it properly then, if it was up on the wall! You know, ironed and pressed and in a frame…’

Facilitators had the ability in the space to encourage, prolong, and celebrate these moments of creation.

I helped carefully pin the design onto a piece of blank calico, with Emily correcting me as I made mistakes. Working as the facilitating artist I was guided by Emily to help realise the piece as she saw it.

Emily is usually quite shy, though when we held the final piece up for everyone to see she admitted;

‘I’m not that bad, am I?’ with her shoulders raised.

Extract 2

Artists were able to personalise the pursuit for creative expression while enabling collective participation and contributions, afforded by the careful choices of material and spatial interactions.

Residents each chose a fallen autumn leaf and traced around it onto fabric, then coloured their artworks in using marker pens.

The spatial arrangement of the activity was very clear to interpret; the leaf and resulting drawing ended up exactly equal in size as a result of tracing, and all of the residents chose to use colours closely matching their leaves at first, resulting in highly figurative artworks.

If people drifted in and out of engagement with the activity, they could get back on track easily as the materials in front of them were physically suggestive of the activity in hand without having to vocally question what was going on, or what to do next. This resulted in a particularly high uptake which, in turn, encouraged yet more residents, often less keen to take part, to engage with the activity.

The relaxed atmosphere of joining-in encouraged greater creative exploration, with some residents moving away from the representative into more abstract and self-expressive imagery within subsequent artworks.

Extract 3

Convivial group activities were sometimes at odds with individualized interactions, where artists sought and identified discrete authorship among collective work.

During a drawing activity Claire was searching restlessly through the papers at her table. I saw she was strumming her thumbnail along the corner of each sheet of paper in turn to see if any individual pieces were actually two stuck together. After some time, we were able to work out she was looking for the artwork she’d started in the previous week’s workshop.

She tried in vain to describe to me what it was she was looking for; it took a long time checking each piece of paper in the room with her until finding the drawing she was looking for. Once recovered, Claire recognized it instantly and started working again as soon as she had it back. What was particular about the artwork was how small and gentle it was, yet still completely recognisable to her. The artwork was just four tiny circles, lightly drawn in pencil towards one corner of an A4 page, no bigger than a coin.

The beauty of created artworks was foregrounded in interaction by residents and artists; built over time through empathy. Artists sought to simultaneously

hear the quietest voices while bringing group activities to as many residents as possible.

Discussion

We present three transferable insights for co-creative practice, framed as challenges for the community and highlighting structural tensions in the context of co-design methods in dementia care.

1. Making in The Moment

During our workshops artists' key focus was on the making; resultant perceived aesthetic beauty in the objects was derived from collective celebration and careful curation. This was, at times, in tension with the perceived agenda of external agencies in the project, whose focus was typically more on the material manifestation of artworks, rather than the moments of creation.

A conscious focus on celebrating the moments of creativity during a making process can define the collective experience of participants and foster a sense of designers being open to and sensitized to ideation by those moments. We echo extant reviews of arts practice reporting benefits to 'personal sense of control, life meaning, and personal satisfaction'(Cowl and Gaugler 2014, 308) regardless of the material arts process employed.

Inputs from participants may be critical during creative processes to define the design response, rather than that being led by the designer on a problem-solving trajectory. We encourage designers to step back and give more control on the direction of design work, creation and decision making to participants in co-creative practice.

2. Curating Social Spaces

Significant expertise is needed to orchestrate social activities which are collective, while also bringing individual meaning for many participants. The degree to which interactions are carefully tailored reinforces the necessity for skilled creative practitioners to 'be there', to share in and observe moments of making. Co-creative work in dementia care has the potential to ensure reciprocity between actors.

Key moments of the workshops were those where individuals felt comfortable enough to; break rules, question, and disrupt established expectations. Playful and joyful creativity came about through mutual encouragement, facilitation, and openness. Artists were attuned to the emotional and therapeutic potential of making and creating together (Killick and Craig 2012). We suggest that design researchers can also deliver in this regard, given the right approach, by learning from other creative disciplines and practices.

Dynamic flexibility is needed to invite people living with dementia to meaningfully disrupt and personally explore the bounds of creative practice. The artists in our study keenly encouraged social dynamics in which people were supported to develop and express individual creativity, often challenging the discourse of the space at the same time as working within it. Recognition of the importance of authorship and autonomy superseded preconceived expectations.

Listening to the choice of each person living with dementia was transformative for the first author. Co-design has the potential to position individuals as experts, navigators, and inventors. Surrendering ideas of good or bad design, and rather advocating for designing itself, we have an opportunity to disrupt power imbalances. Handing over the reins and letting people in can lead to aesthetically pleasing processes and unexpected happy results. Significantly, the act of making is democratized and can be celebrated aside from any material outcomes.

3. Personalisation at Scale

Designers are well placed to approach the daunting problem of delivering individualized participatory practice at scale, appropriate to the numbers of people living with dementia in residential care.

This undertaking involves confronting key tensions within the existing discourse, and real-world context of care homes. With limited resources available, we invite designers to embrace personalisation and participation, at a scale commensurate with the context of care. We call for future work that creates opportunities for more people with dementia to benefit from these moments of creation which 'should work to enrich this co-presence rather than provide a facsimile of it' (Morrissey, McCarthy, and Pantidi 2017, 1328).

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