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# Memory in Making

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A thesis presented in partial fulfilment of the requirements for a Master in Design at  
Massey University, Wellington, New Zealand

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## Abstract

Memory in making explores different ways we can utilise memories, nostalgic storytelling and reminiscing in the design and making process in the hopes of facilitating emotional attachment to products and breaking down barriers between designers, makers and users. In sustainable design research there is an increasing emphasis on the meaning of products and the emotional value they add to our lives, shifting away from the symptom-based approach which focuses on reducing energy and resource use. This behavioural approach looks more critically at the consumption systems in place and acknowledges that consumerism is a system which negatively impacts both the planet and consumers. My research takes an autoethnographic approach, exploring my own memories in order to design and make mnemoactive objects, grounding the project in relation to research on product attachment, object meaning, user-makers and memory. Memory in making explores and develops tools for designers and makers to use in order to add depth of meaning and narrative in the hopes of creating products with mnemonic qualities and sentimental value. I explored memories of my family and childhood to design products, eventually creating a rug and pyjamas, which can be seen as case studies for the process I have developed. I reference material from both product design and fashion design and argue the use of memories in making could be of value in multiple disciplines.

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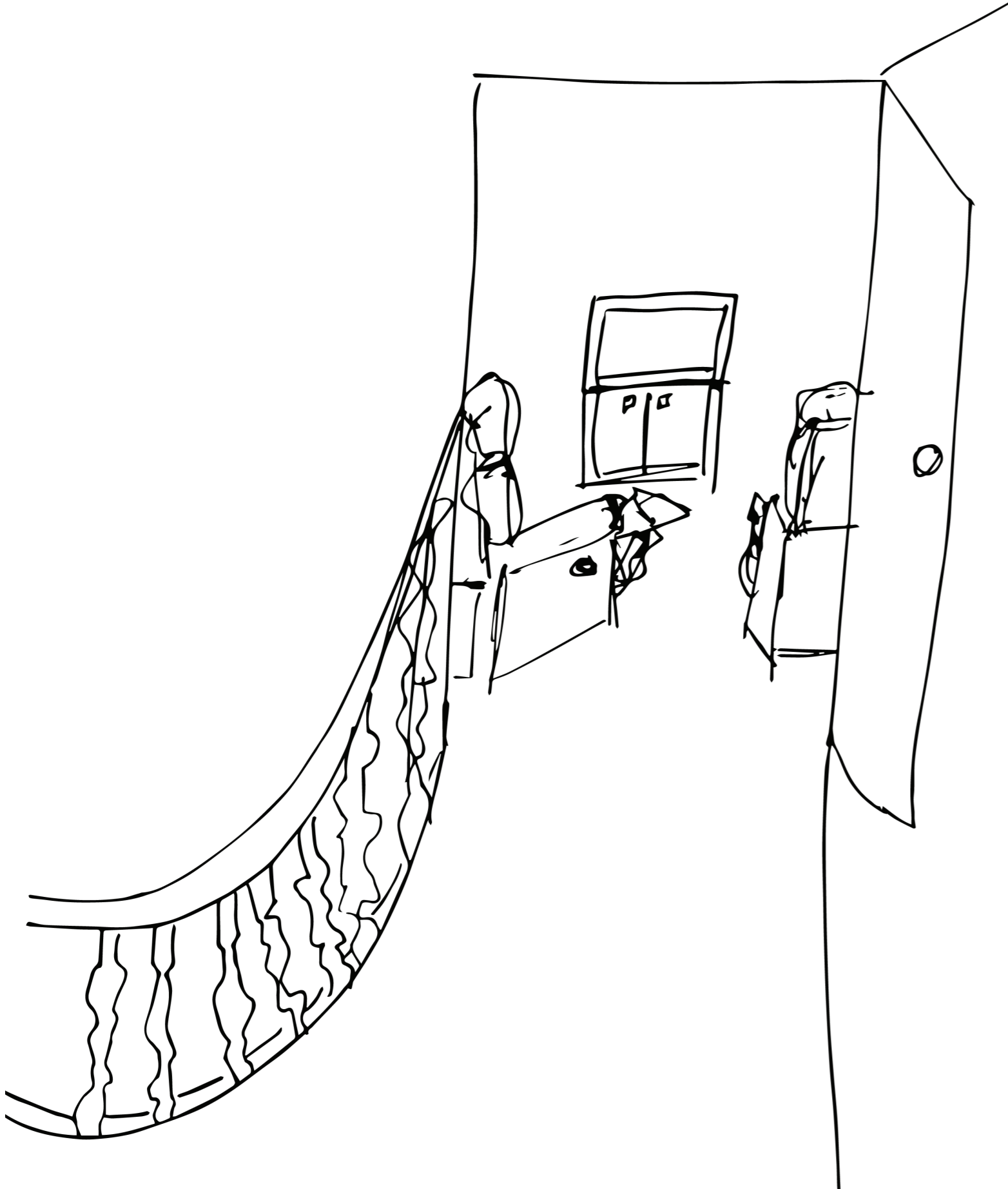
Thank you Kendra, for reading my exegesis so many times, your encouragement and always correcting my colloquialisms

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## The beginning

Our first home was a small L shaped house at the bottom of a long steep driveway on Moxham Grove. At night time I would often sneak down the hallway into my sister Chelsea's room to cuddle and play games. I mostly remember playing the alphabet game. We would pick a topic, usually animals, and alternate naming something for each letter of the alphabet. A for ant, B for Baboon, C for cat, etc. As we neared X our giggling would slowly increase, knowing that whoever got the letter was going to say xylophone. Somehow it never got old.

In our next home our bedrooms were at the end of the hallway opposite each other. We could lie in bed and talk to each other, so I no longer had to sneak into her room. We did, however, sneak down the hallway to watch TV, quite literally behind our parents' backs. Our house was long and L shaped. At one end of our house were our bedrooms, at the other was the lounge with the TV opposite the door. Chelsea and I would sneak up the hallway, avoiding the creaking spots under the carpet, and sit on the floor with the perfect view of the TV between our parents' lazy boy chairs (fig. 1). I'm not sure how old we were when that started, but not old enough to watch what we saw on late night TV (think *Outrageous Fortune*). The sound of a lazy boy footrest going down was our queue to scam, as quickly and quietly as possible. If we were successful we would sneak back to bed only to sneak back out again when we heard the footrest go back up. If the floor creaked we would sneak into the bathroom and flush the toilet, or pretend we were going to the kitchen for some water. We were crafty young things, and my parents were none the wiser until we told them a few years ago.

Figure 1. Oswin, Ashley. *The view*. 2022

Reminiscing and nostalgic storytelling have positive effects, bringing up feelings of social connectedness and positive emotions (Routledge 47,57). Throughout this project I have been exploring how to design and make based on memories and nostalgia, ultimately making a rug and pyjamas based on the above memory. The pyjamas feature a xylophone repeat pattern with subtle googly eyes, alluding to the in joke my sister and I share. The rug references the location and sensory experiences of sneaking out of bed through its shape, with my sister's and my own footprints subtly carved into its surface, colour blocking alluding to light falling through doorways, and a hidden patch which creates subtle noise when stood on. My hope is that by designing based on a memory which is meaningful to me, I can make a product which serves as a cue for that memory and the memories of designing and making the product, thereby facilitating emotional attachment and product retention.

This project is a response to sustainable design research, which increasingly emphasises the role human behaviour has in sustainable practice. I am hoping to address failed human-object relationships and a lacklustre consumer experience by examining the meaning of objects, using existing valued memories as a source of inspiration for designs which tell stories and hold personal significance.

In my project I have taken an autoethnographic approach to develop a process, tools and recommendations to designing from memories. Autoethnography is a highly valuable research method as researchers are able to supplement and guide the research through their personal lived experiences (Poulos 4). When we are trying to access memories, collect information about experiences and emotional attachment this is of particular value, as these aren't things which can easily be measured or expressed. Whilst ethnography involves observation which can reveal things that the participants themselves may not know or be able to verbalise, autoethnography takes this a step further and enables the researcher to embed their own personal experiences in their research in relation to a larger social context (Poulos 5–6). In this way their personal experiences are often the basis of their research. Autoethnography provides an opportunity to record and reflect critically on your own experience, bringing tacit and latent knowledge to the surface, which traditional research methods may not allow for (fig. 2). Autoethnographic research usually draws on a plethora of methods in order to gain a thorough understanding of the area of research, such as focus groups, journaling and narrative analysis (Poulos 5), and I have used these methods in my project.

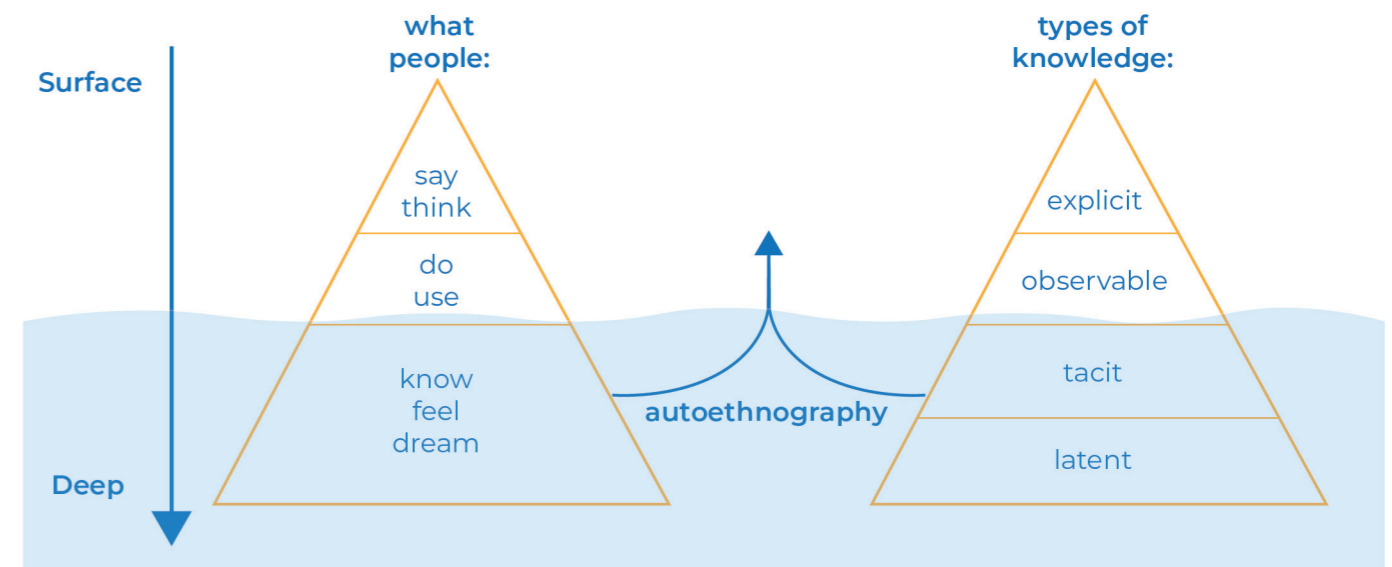


Figure 2. Adapted from Sanders, L; [Autoethnography can help access different levels of knowledge], 2022, Convivial Toolbox: Generative Research for the Front End of Design

At the beginning of my project, I was imagining involving users throughout the entire project by getting users to do activities to cue memories, then designing and making based on their memories with my guidance as a facilitator. However I found working with users to be a significant undertaking in itself and wanted the focus of my project to be about using memories and how the experience of being a user-maker impacts emotional attachment. I also found it difficult to facilitate designing and making from memories when I myself have never done it; it felt like teaching someone to ride a bike without knowing how to ride one myself. I didn't understand what was important in terms of what the resulting objects should achieve for the user-maker but also the approaches that would allow them to tap into and use their memories in the most effective ways. I also didn't understand the importance of the experience. Without all this knowledge I wouldn't have much to offer as a facilitator. By taking an autoethnographic approach, focusing on exploring designing and making from my own memories and critically examining my experience, I gained a rich and thorough understanding of these areas which has prepared me for facilitating sessions with users in the future.

Although my focus has primarily been how this process might work for user-makers, I speculate that my process could be of use for designers as well. Designing from memories could be utilised to involve users in the designing and/or making of their things in a meaningful way. Whilst user involvement in the designing and making process is outside the scope of this project, research into how being a user-maker impacts emotional attachment has informed my process and my understanding of my own designing and making experience.

In addition to the benefits of designing and making for myself and proposing others do the same, storytelling can also result in transferred nostalgia and transferred meaning. Designing objects with rich backstories and communicating them effectively to consumers could result in transferred nostalgia and potentially strengthen the user-product relationship without user involvement.

My exegesis starts by outlining sustainable design research which focuses on human behaviour and addressing user-product relationships. I then delve into what shapes a user-product relationship, guided by Don Norman's three levels of design, and further explore the reflective level by examining meaning and memory. I document and discuss current approaches to designing for emotional attachment, looking at products which are designed to age well and show marks of use. I outline nostalgia and memory within the context of emotional attachment, then outline my explorations into cueing memories and nostalgia. Next, I discuss design precedents which explore memories and how being a user-maker can further enrich or hinder the user-product relationship. I then delve into designing from my own memories and reflect on my own making experience and its impact on emotional attachment.

Part one:  
Context

## Sustainability in design; object meaning

### Planned obsolescence and the consumer experience

The most sustainable thing one can do is consume less and keep things for longer, so why don't we? Why do we throw away perfectly functional things? Or rather, why do we keep and value things? And how can we learn from this and create things that people want to keep for longer?

Most current sustainable design strategies focus on reducing energy and resource consumption, essentially addressing the symptoms of a much larger issue: a human behaviour called consumerism stemming from capitalism (Chapman, Emotionally Durable Design 13–15; Fletcher and Tham 12–13).

Consumption alone is not inherently unsustainable, rather the mode of consumption prevalent today has evolved to be largely devoid of the meaning which causes us to keep and value objects. Consumerism, 'advocating a continual increase in the consumption of goods as a basis for a sound economy,' ('Consumerism, n.') is facilitated through planned obsolescence (Maycroft 3–4). Planned technical obsolescence is the designing and making of products of finite quality so they need to be replaced earlier, however stylistic or psychological obsolescence is more complex and arguably harder to solve as it is an issue of meaning and human behaviour. Stylistic obsolescence is about fashionability and novelty, and is often used as a marketing tool to sell more things (Fletcher, Craft of Use 193; Maycroft 24); if your current possessions are perceived as unfashionable, you dispose of them and purchase new ones. While particularly prevalent in the fashion industry, it is a marketing tool utilised in all design sectors and leads to the premature disposal of products.

It's easy to understand how stylistic obsolescence creates more waste, however it also negatively impacts the consumer. Firstly, consumerism is often driven by the desire to be fashionable, or perhaps a fear of being unfashionable, which has been linked to a rise in insecurity and mental illness in consumers (Fletcher, Sustainable Fashion and Textiles 140). Additionally, mass marketing and trend driven consumer culture have resulted in formulaic fashion and a formulaic consumer experience, resulting in a de-personalised relationship between consumers and their things (Fletcher, Sustainable Fashion and Textiles 222). All of this means choice is largely eliminated for the consumer, making their role and experience rather passive and ultimately resulting in failed human-object relationships. Meanwhile designers are perceived as trend makers and experts, held up on a pedestal.

If our current unsustainable system is failing both the planet and users, we should be looking to change it rather than finding more efficient ways to produce objects within it (Fletcher and Tham 13). Enacting such substantial sustainable change will require a radical ideological shift, challenging the consumerist ideology which prioritises uninterrupted growth. It will see change in the way we – and indeed who – designs, makes and consumes things which will require "fundamental personal, social and institutional change" (Fletcher, Sustainable Fashion and Textiles 3).

## Emotional attachment; understanding meaning

Chapman argues that sustainable design should be addressing the issue of failed human-object relationships, challenging planned obsolescence (Chapman, Emotionally Durable Design 24–25, 73–74). Until the turn of the millennium, few researchers have been concerned with object meaning, mnemonics, and the emotional value objects can add to our lives (Chapman, Emotionally Durable Design 43; Jones and Martin 1587). Now there is an increasing emphasis on how we can design emotionally fulfilling objects with durable meanings which stand the test of time (Chapman, Emotionally Durable Design 21–22). Ultimately our memories, emotions and thoughts about products determine how we value them and whether we keep them and continue to use them.

Don Norman's three levels of design – visceral, behavioural, and reflective – help us understand our relationship with objects. Your first impression of an object is the visceral level. This is where the look and feel of objects are particularly important (Norman 37). When we call something 'pretty' or 'ugly' this is our visceral response. Often this alone is enough to make us want to buy something (Norman 68). The behavioural level is about the experience one has while using an object which is determined by how well an object performs (Norman 69). This has to do with the quality of the experience in terms of function, performance, and usability. Ensuring an object meets both these criteria is imperative to making an object which a user will want to use and keep. However, the final level, the reflective level, is arguably the most important in understanding and determining user-product relationships (Norman 37–38). The reflective level is all about the meaning of the object, how it can cue memories and how it makes us feel. It is about all the processing that goes on inside our heads, where we interpret and reflect on the objects, synthesising all our emotions and thoughts to determine an object's value to us.

Semiotics is a method of interpreting sign systems and has been studied primarily in a linguistics and communications context, examining how words, symbols and objects communicate meaning (O'Shaughnessy and Stadler 122–23). Objects are signifiers, or visual cues, which have connotations that each individual associates with them. This could be as simple and universal as the meaning of road markings and signs, to something more complicated, changeable, and open to interpretation such as the meaning associated with a pair of Doc Martins and what they communicate about the person wearing them. Cues usually rely on shared cultural context and collective knowledge to function as communication tools within society, which Richins terms public meaning (Richins 505).

However, one must also look to the private meaning objects hold to understand product or emotional attachment to objects. Object meaning is as ubiquitous as it is elusive and multifaceted when it is examined from an individualised psychological perspective, hence a relative lack of research into this area (Jones and Martin 1587). Objects can also cue specific personal memories, which vary from person to person. Richins refers to this as private meaning whilst Jones and Martin call these 'mnemoactive objects' (Jones and Martin 1587; Richins 505–06), objects which are able to elicit memories unique to individuals.

## Mnemoactive objects

The value an object holds is often by default assessed by its public meaning, or social and financial value, however it's these mnemoactive objects which we really value the most (Jones and Martin 1594–95; Richins 504; Chapman, Emotionally Durable Design 17–18). For example, jewellery made of gold and precious jewels would generally be valued higher than that made of sterling silver, but my favourite piece of jewellery is an understated silver ring.

*I'm the youngest of eight children in a group which we call Four Families. Our mums all worked together in their early twenties, became fast friends and ended up having kids around the same time. We grew up having sleepovers and potlucks together. Whenever they came over we would play dress ups. There's one photo of all the kids in dress ups in front of our childhood home on Moxham Grove. At potlucks we would always have Monkey Bread, a pull-apart bread smothered in garlic, butter, sesame and poppy seeds. I remember one sleepover in particular. Indianna, Jasmin and their parents were over for dinner at our house and we all wanted to have a sleepover, so we rehearsed the macarena, performed it for our parents then asked if they could stay the night (they said yes).*



Figure 3. Oswin, Wendy. *Four families' kids*. c. 1999. Author's personal collection. Reproduced by permission of Wendy Oswin and all those in the image.



*For our 21st birthdays our Aunty Sue bought each of us a Pandora ring. She knows how fussy I am so she secretly let me pick out which ring I wanted. This is the ring I chose and I've worn it every day since (fig. 4).*

*Since moving to Wellington, I rarely get to see any of them except for occasional trips home for birthday parties or reunions. This ring is one of my most cherished possessions because it reminds me of my second family. It's a symbol of our relationships and by extension all the memories and emotions associated with them.*

Our objects have stories; they are able to capture and evoke memories, social connections, our identity and emotions. It's the private meaning and memories associated with objects which makes us value them. Our attachment isn't to

Figure 4. Greer, Ryan. *The ring*. 2022. Reproduced by permission of Ryan Greer.

the object alone, but to the meaning the object has to us and the memories it allows us to relive. To put it simply 'products do not possess meaning – they elicit meaningful associations within us' (Chapman, *Emotionally Durable Design* 148).

When the public meaning of an object changes or we outgrow it's meaning, we may dispose of it; this is a failed human-object relationship (Chapman, *Emotionally Durable Design* 24–26). Objects which have durable private meaning are more likely to be kept and valued. By examining why we value objects we can understand what is important to consider when designers are trying to facilitate stronger attachment between users and their things, elevating them from products to possessions.

## Designing objects with mnemoactive abilities

There is an ever-growing area in design which focuses on creating products to facilitate emotional attachment, employing a plethora of methods to create a stronger human-object relationship. However, there is never a guarantee of emotional attachment. Many theorists agree that as a designer you cannot engineer or predict specific meaning because of its idiosyncratic nature; it depends on each person, their personality, values and background (Chapman, *Emotionally Durable Design* 105; Richins 506; Fletcher, *Craft of Use* 184, 211). All designers can do within our current consumerist system is either provide the opportunity for memory association and meaning to develop over time, or design a product hoping it will evoke existing memories.

Objects don't usually intentionally become mnemoactive objects in our consumerist society. There are exceptions such as souvenirs and gifts, however objects will usually become associated with memories through use over time, and, if these memories are significant, the user might become emotionally attached to the object. This has resulted in a lot of designs which either age gracefully and show marks of use, grow over time with their user, or objects which facilitate a positive experience. But to what degree are these designs actually facilitating emotional attachment? Or are they simply novel?

The 365 knitting clock by Siren Elise Wilhelmsen is a clock which knits a scarf over a year, giving the passage of time a tangible form (fig 5). In this way it can become symbolic of the year during which it was knitted, potentially having the ability to cue memories of that year. It's also an unusual object and would likely prompt conversation about the scarf, creating memories around the object. As it slowly and seemingly autonomously comes to life before your eyes, it may be seen as having a life of its own. Whilst it was not designed specifically to facilitate emotional attachment, it has been discussed within this context by researchers such as Chapman (Chapman, *Emotionally Durable Design* 85).

Memories associated with the scarf, the autonomous creation and it's symbolism of time may all result in a degree of attachment to the scarf, but I wonder if it's meaningfulness extends past the point of novelty and if it would result in durable emotional attachment. When we talk about why we value objects, we tell stories. Think back to the stories I told about my ring, I talked about my relationships (my second family), repeated events (potlucks and monkey bread), and an episodic memory (the macarena sleepover). The meaning my ring holds goes beyond novelty, it's emotive, intrinsically linked to my identity, and symbolic of what I value most.

Chapman has conducted many focus groups in which he and a group of participants bring a cherished possession and share stories about what the possession means to them. He found that the key theme throughout all the stories was connection to meaningful people, places and times from our past. He describes objects as providing 'experiential bridges', with their ability to cue memories and capture our sense of self (Chapman, *Meaningful Stuff: Design That Lasts* 29). We dispose of or avoid objects which connect us to negative experiences, while we keep and cherish objects which connect us to positive and autobiographically significant ones.



Figure 5. Wilhelmsen, Siren Elise. *365 Knitting Clock*. SIREN ELISE WILHELMSSEN, 2010, <http://www.sireniselwilhelmsen.com/#365knittingclock>

Now think about the stories the scarf resulting from the 365 knitting clock would prompt. Likely a story about watching it being knitted over the year, perhaps discussing the tangibility of time, or a comment on its novelty, but are any of these memories emotive or personally meaningful? If we're lucky the scarf may prompt a story about a repeated memory or episodic memory, but this is completely outside the control of the designer and isn't guaranteed. Its ability to connect us to anything meaningful is somewhat limited. But what if the scarf could capture things which we know might become meaningful to the user, making it more relevant and unique to each individual, how would this affect its lifespan? If, for example, the yarn in each stitch could be dyed a different colour depending on the amount of conversation it detected. You might be able to identify birthday parties, family dinners, weekly social events. The scarf would be entirely unique and have the ability to connect you to significant people, places and times. Would this not be more meaningful and increase the chance of emotional attachment?

There were many directions my project could have taken in response to this research. I considered making something that would age well post-purchase, making something that would grow over time, or that could be customised or personalised by the user, or facilitating users learning new skills so they can become user-makers. But when I was examining the objects I valued most, I found I valued them because they told stories of my identity, my values, my social relationships, and my past; they were autobiographically significant. Sharing these stories in a social setting made me and my audience nostalgic, and I wanted to explore that feeling, how it relates to why we cherish objects and how it can be utilised by designers and makers.

Whilst objects which age well or grow slowly over time can successfully result in varying degrees of emotional attachment and mnemoactivity through their post-purchase use, I am more interested in reversing the process and designing and making things based on existing meaningful memories, enhancing the connectivity I feel to my possessions, my memories and sense of self. I have many cherished memories which exist solely in my head, how can I create objects which capture these memories, giving them a tangible form? Will this result in emotional attachment between myself and the object? Can this process be of use to facilitate emotional attachment by involving users in the design process? Or can designing from memories and effective storytelling elevate the meaning of objects and facilitate attachment in users, without them being involved in the design process?

## Memories and nostalgia

There are many links between nostalgia and the stories behind our cherished items. I have already regaled you with a story from my childhood and a story behind my most cherished object. Both of these are stories which I find nostalgic, but what is nostalgia? What causes it? What are its affects? And how can nostalgia be of use when looking to facilitate emotional attachment?

Nostalgia can be defined as “a relatively positive emotional experience concerning personally meaningful past experiences involving close ones, but also prominently featuring the self” (Routledge 24). The term ‘emotional experience’ is important to note here, as nostalgia is a feeling or experience which is caused by reliving a memory. Memories are not inherently nostalgic; it’s the experience of remembering and reliving them which is. People and momentous life occasions are the most common features of nostalgic memories (Routledge 21). As with the stories I have told of my most cherished objects, they are centred around people, places and events from the past, with rich sensory details which transport me back to the time and place, enabling me to relive the memories.

A thorough look into the scientific research of memory is outside the scope of this project, however it’s useful to understand how our long-term memory system works at a basic level and where nostalgic memories are situated. Our long-term memory can be considered an information processing system which involves perceiving, encoding and then retrieving information (Baddeley et al. 9). Semantic memory and episodic memory are the two main types of conscious long-term memories. Semantic memory is accumulative general knowledge of the world. These memories are generally things we ‘know’, meaning we don’t remember the acquisition of the knowledge (Baddeley et al. 14). This spans from knowing how to use a language, to knowing the difference between casual and formal wear. On the other end of the spectrum is episodic memory, which by contrast is something we usually ‘remember’, the distinction being that you are able to transport yourself back to the acquisition of the memory and relive it (Tulving 5). Tulving emphasises that semantic memory is generally when subjects only remember the ‘what’, whereas episodic memory is highly specific and also encapsulates the ‘when’ and the ‘where’ (Tulving 3–4, 9). Whilst this binary categorisation system is an oversimplification of very complex mental processes, there is limited research into personal semantics which encapsulates a few types of memories which exist between these two poles, such as memories of repeated events and autobiographically significant concepts (Renoult et al. 550). We can deduce that nostalgic memories are memories which we can ‘relive’, situated at the episodic memory end of the spectrum (fig. 6). These types of memories have higher emotional valence and rich sensory information associated with them.

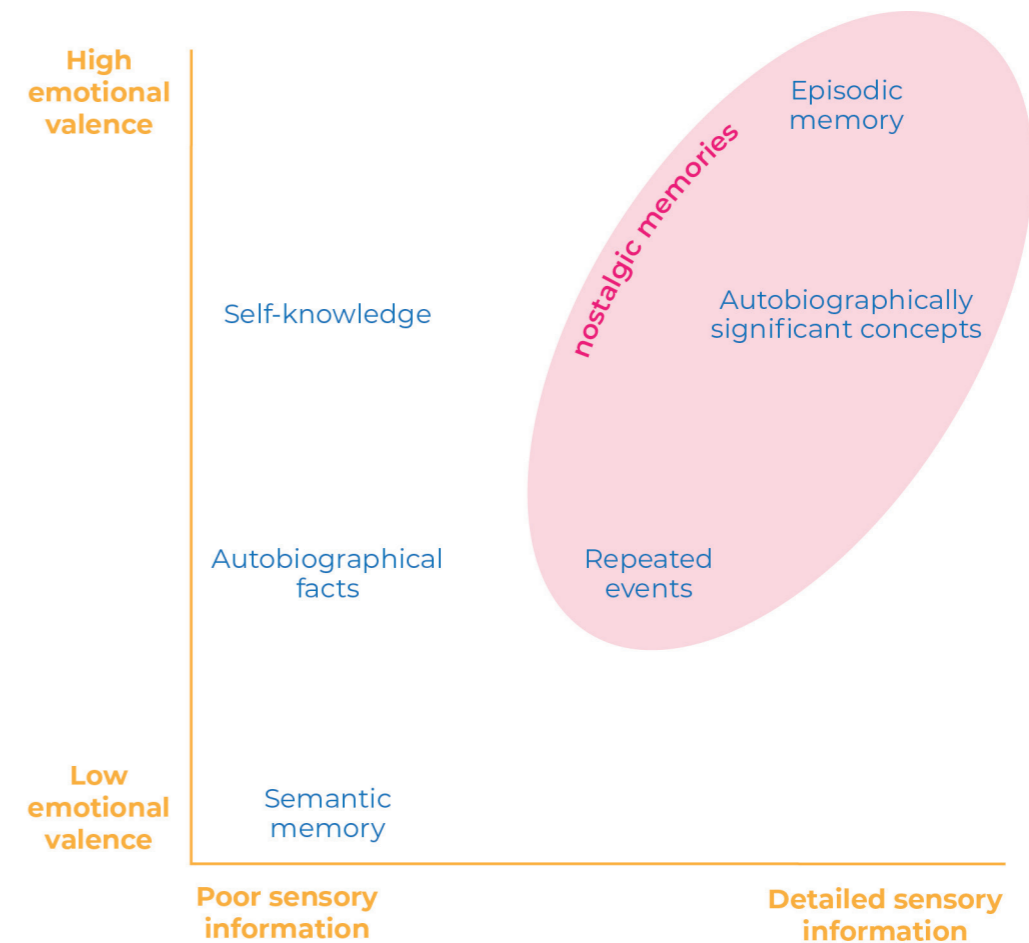


Figure 6. Adapted from Renoult et al.; [Mapping long-term memories and nostalgia], 2022, <https://www.sciencedirect.com/science/article/pii/S1364661312002197>

Nostalgic memories are most commonly triggered by connecting with close ones and sensory experiences such as smells and visual media (Routledge 42), however even words can be used to trigger memories. Nostalgia, in particular social nostalgia, causes positive effects, increasing positive mood, feelings of belonging and even inspires social behaviour (Routledge 68). Social nostalgia is the discussing of meaningful past experiences with others (Routledge 38). Additionally, van Tilburg et al. found that nostalgia increases creativity by increasing openness to experience (van Tilburg et al. 5). How could I use triggers such as sensory experiences, visual cues, words, and social experiences to create activities to cue nostalgic memories? And how can the positive effects of nostalgia be used to both facilitate positive creative experiences in designing and making objects and to facilitate emotional attachment to objects by making them symbolic of the original nostalgic memory?

Additionally, some research suggests that nostalgic interpersonal emotional transfer, where your emotional state can be effected by another person's emotional state, is possible (Wildschut et al. 5, 16). Wildschut et al found that even reading a nostalgic account can result in transferred nostalgia. It may be that this process occurs when we share stories of our most valuable possessions, stories which are likely nostalgic. Indeed, Chapman found the process of storytelling in his focus groups transforms the way all the participants value the other possessions. Without the rich backstories the possessions are considered worthless, but by the end of the group session everyone views them as irreplaceable (Chapman, Meaningful Stuff: Design That Lasts 28). This suggests that objects designed based on a nostalgic memory could result in transferred nostalgia if the story is properly communicated to consumers. How could this process of designing from memories be of value for designers in addition to user-makers?

My hope is that reflecting on and designing from a nostalgic memory will have a positive impact on the designing and making experience, which will result in an mnemoactive object for both the original memory and the creative experience (fig. 7). I also hope that the object will be a talking point and able to facilitate a nostalgic experience through it's use by prompting nostalgic storytelling.

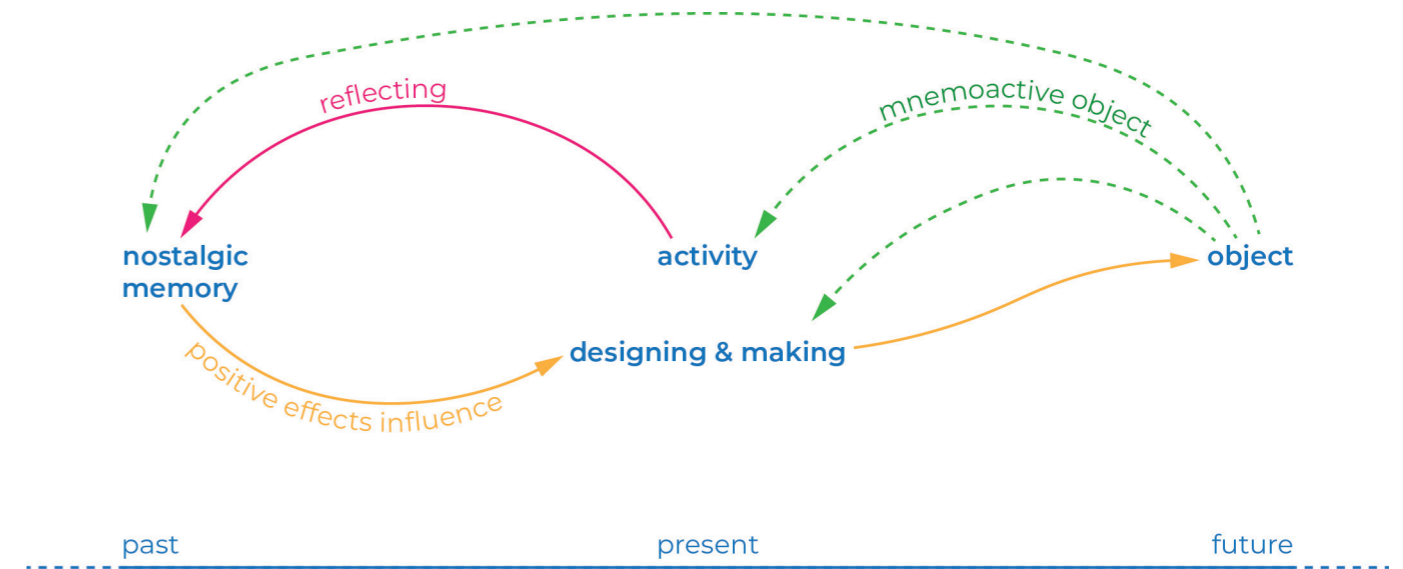


Figure 7. Oswin, Ashley. *Envisioned process utilising nostalgia to create an object.* 2022

Part two:  
Process

## Cueing memories

My project started by exploring the cues for memories and nostalgia. My goal was to find the most natural way to access and record memories and facilitate a nostalgic experience. This involved testing different activities for potential future use with users, while also building a bank of memories from which I could design and make from later. Throughout this process I was assessing the viability of activities to work with broader audiences, which involved testing the activities with others. I was also thoughtfully reflecting on the experience of the activities, with the knowledge that this experience would likely become associated with any resulting objects.

This initial phase in my project has been quite different to what I am used to in designing textiles. The textile design process I usually use is based on the double diamond method which is characterised by convergent and divergent thinking. Usually I have a clearer understanding of what the designs will be by the time I am designing, for example knowing I will be making a rug or a repeat pattern, and I explore a large variety of designs at the same time (see page x for more discussion). However designing activities which require testing on people is vastly different to designing textiles. This was unfamiliar territory for me, which led to me approaching it in a different way. My process in this case felt more cyclic, exploring and testing one or two ideas at a time and using my learnings to refine or design another activity (fig. 8).

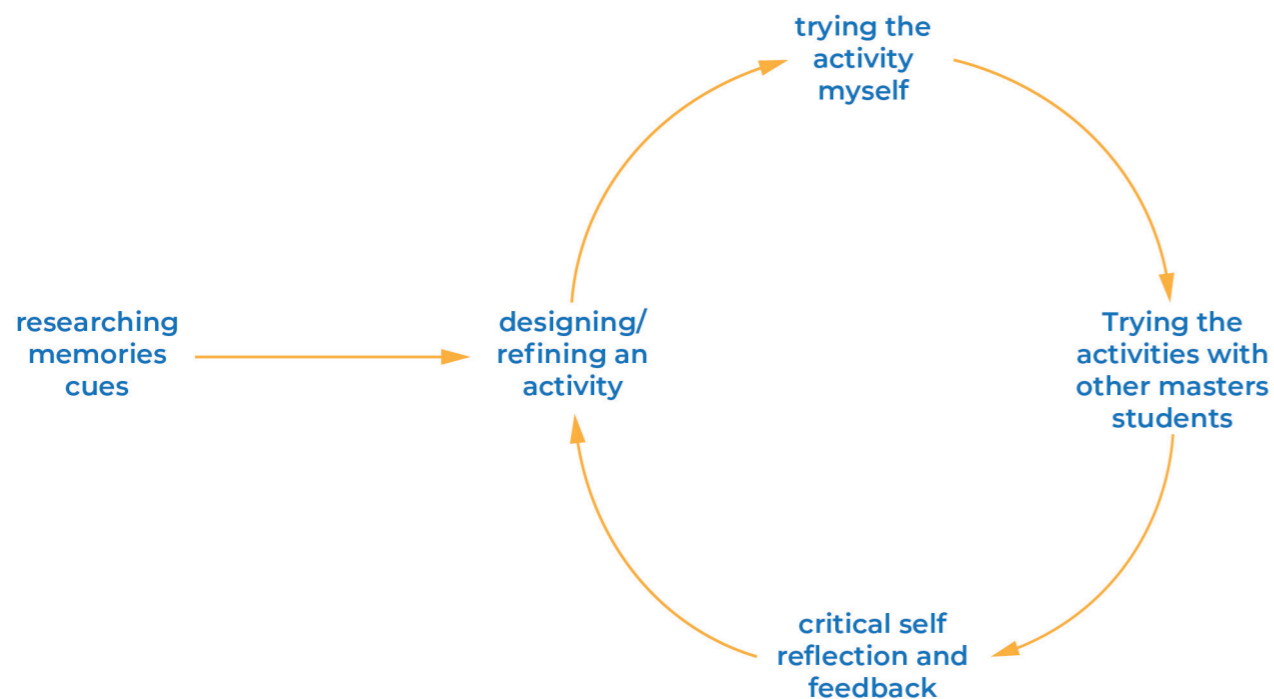


Figure 8. Oswin, Ashley. *Process for designing an activity to cue memories*. 2022

It was important for me to get feedback from other master students and friends during this process to ensure my project wasn't completely insular. Additionally as I was looking at social nostalgia, testing the activities in a social setting rather than by myself was important as it changed the nature of the activities entirely.

We know that nostalgic memories can be triggered by sensory experiences, keywords and social interactions, therefore this was the starting point of my process. I tried a variety of activities:

- brainstorming using words and drawings
- cooking nostalgic food
- looking at photos
- collaging
- drawing and writing
- social scenarios involving storytelling and reminiscing

What elements of these activities matter the most? Do some cues work better than others? Can you design a generic activity which can cue a specific memory for everyone? How does a group activity compare to an individual activity? How does the pace of the activities impact their effectiveness and the experience?

# Grandmother's houses

- in the bush so many bugs - bug screens on windows
- near railway station overlooking field
- + warm + white
- + sliding door into garage
- end of Swanson
- + overlooking golf course
- + lovely garden
- + Crochet blanket
- + round table
- + rocking lazy boy lovely wooden handles
- + writing desk
- + purple cane
- + yellow tupperware container

## Naana + Poppa

- + ugly + uncomfortable chairs wooden, nice form, bad fabric
- + weird ugly kitsch mirrors that I LOVED
- + tinsel + bad xmas tree
- + cigarette smoke
- + NZ naturals snakes/lollies

## Objects

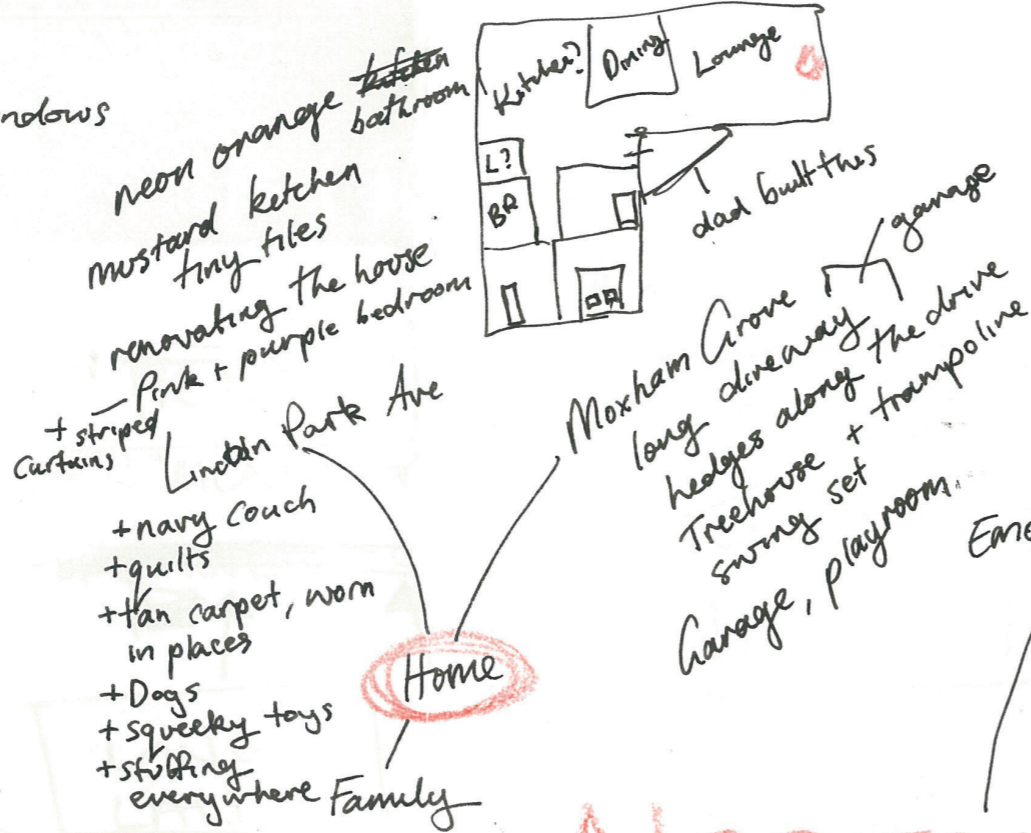
Mark + Michelle + kids

holiday  
dolphins  
grad bike, horse ride  
boat race

Tinopai horse riding

## Cousins

- Joshua + Courtenay staying @ each others houses
- Daniel - sword fights + games
- Pool spa
- blanket forts
- biking



## Home

# NOSTALGIA

when in my life was I happiest?

Events, birthdays, Xmas

## Four families

- sleepovers
- dressups with Indy + Joss - cool house
- monkey bread
- Aunties like family
- Sibling relationship
- awesome garden
- lots of fighting
- some good stuff
- Pizza after school

Steph came to live w/ us end of

Hard social dynamic

too many people  
no close friends until later in school

## Relationships

## Friendships

- High school
- Corryn, Olivia - not great memories
- Carolynn - ANPM/StarKid
- Maria -
- Ruby, Siela + others easy to hang/get along w/
- Freya - rave
- Mrs Tumaru
- Fashion class = the best
- Mr Brook - form class
- Cool

Positive and negative

## Childhood

Music - classic hits

## Primary school

- Steph, Julie, Vicky, + others
- Charmed - lots of fighting tho - who played who
- Sleepovers
- Dress ups
- Netball - Helena, Harmonie

## Intermediate

- Alla, Yvonne, Kiara
- Steph, Holly, Maria, Siela
- Awesome playground
- T2F room - creating lots of things
- HUGE field
- Spanish class Miss McKay
- Mr Dale
- Assembly - singing songs, dancing, fun

## Place

- Primary map, play ground, big tree in corner, big brick wall - liza
- Jump rop, levels of the school, smell of Mrs Dawes class room

reminder of the past

Kindly Primary school

Intermediate

Secondary

grandparents

Parents

family - sister

Can be a fond reminiscence or a longing for a better time

Friends - playtime - Char TV show lol

Really good vibes, 1R8 = best teacher

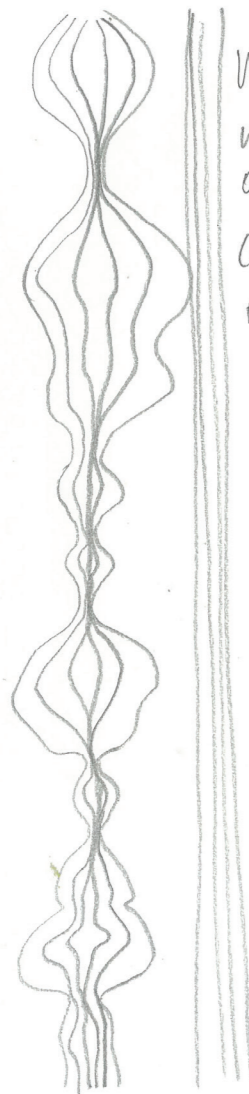
general vibe of the school was cool

Really cool Flat friends awesome principal

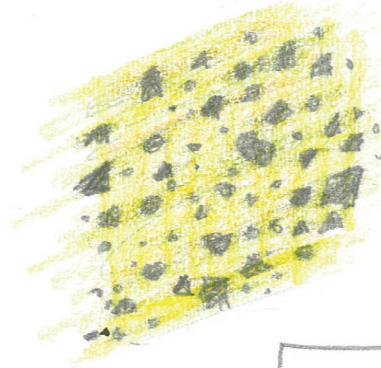
Time phases

General mood of a time/place phase/relationship

Specific memories things

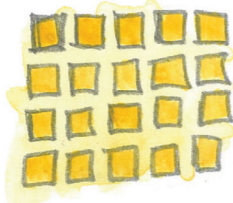
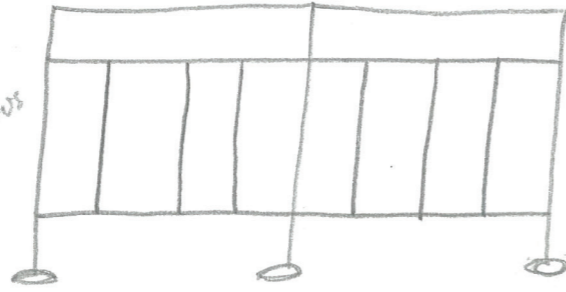


Wall paper we had in our house growing up cream/off white really ugly lol



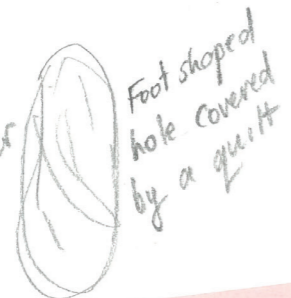
Speckled texture decking - mustardy colour

wh to, peeing very bus very dangerous deck railing



1cm<sup>2</sup> mustard tiles in the kitchen

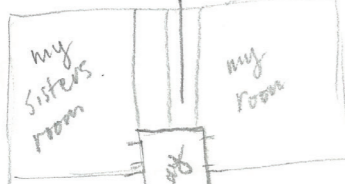
MY CHILDHOOD HOME



in this wall paper Foot shaped hole covered by a quilt



Cat mug that my mum would always make me tea in



Run down the hallway & kick the wall!

Actions/movement ritual - running down the hall way - drinking tea

Sensory/textural wallpaper wooden railings tiles

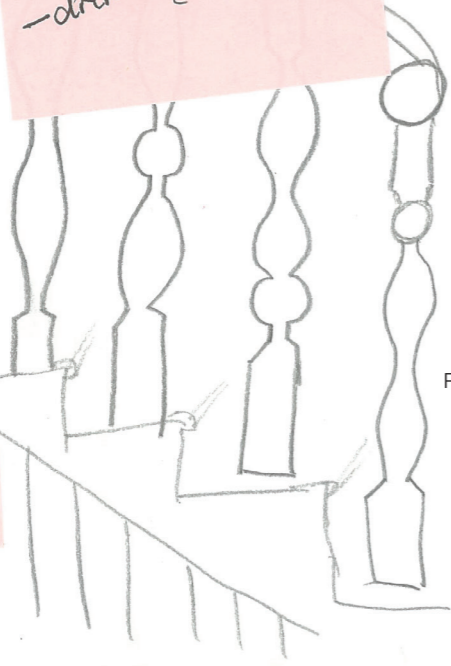
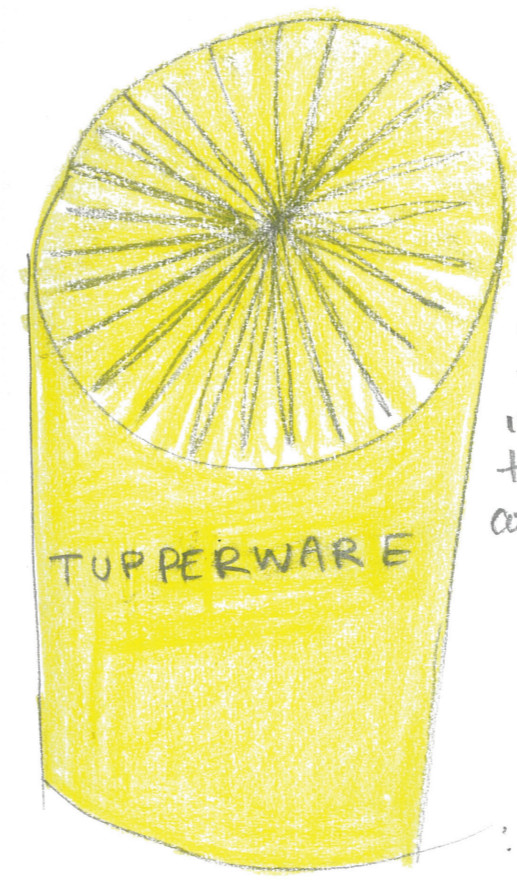
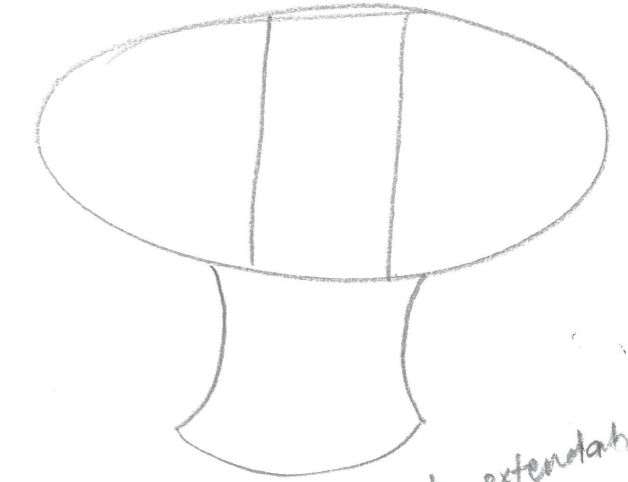


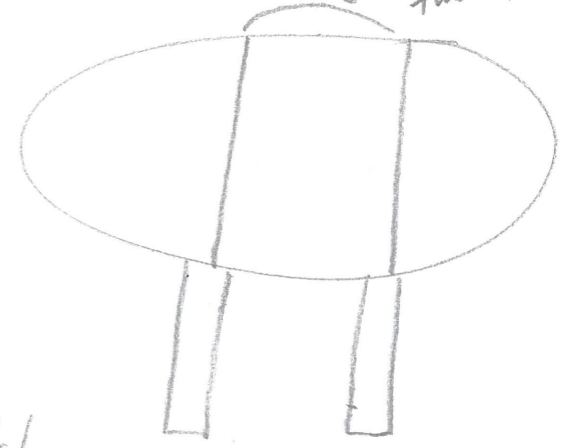
Figure 10. Oswin, Ashley. My childhood home - drawing exercise. 2021



Cookies + crackers in yellow tupperware containers



Big oval extendable table, kauri

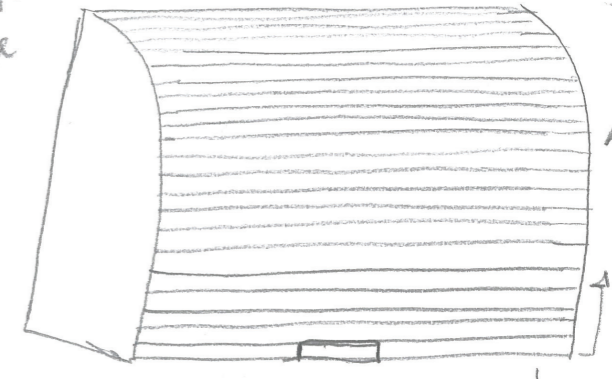


weird greeny velvet rocking chairs / lazy boys

My grandmother still has a brightly coloured crocheted blanket, this is one of the few things she still has / took with her to the resthome

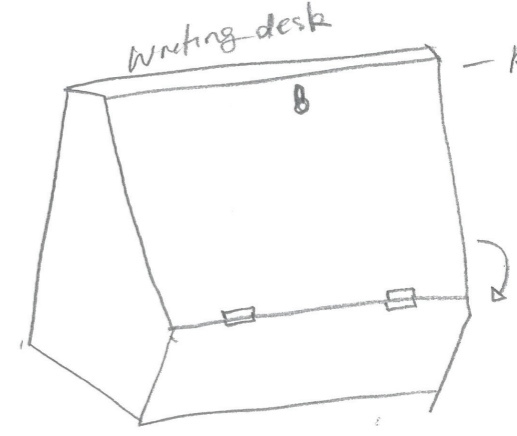


I would rock on the chair until it was leaning the level and it would put the footrest up + freeze the chair mid rock.



Writing desk? door slid open?

This may be from another memory



Keyhole hinged?

Figure 11. Oswin, Ashley. Grandma's home - drawing exercise. 2021

GRANDMA

## Pace and specificity of cues

I found that an activity which invited users to elaborate and respond to a prompt in any way they wished was the most natural and effective way to explore their memories. Due to the idiosyncratic nature of memories and the specificity of memory cues, it's difficult to design an activity which works for everyone to cue memories. Activities which invite and encourage further individual exploration can elicit specific and personal information which in turn can cue nostalgic memories. In this way, we can scaffold activities to work with our brain's information processing system by starting with a broad concept and getting increasingly specific and personal. We can also gear the activity towards nostalgia by asking for key features of nostalgic memories such as people, places, times and key life events, or by using words with positive connotations such as 'favourite' or using personal language such as 'your'.

For example, I did brainstorming activities (fig. 9) using broad keywords as prompts, such as 'school', 'relationships' and 'home'. While the word 'home' for example doesn't elicit any episodic or repeated memories in and of itself, it does make me think of the homes I lived in growing up. Through drawing and writing, creating maps and recording elements of the house, it draws more specific details to the surface, which in turn are able to cue repeated and episodic memories (fig. 10 & 11).

I attempted to do these brainstorming activities with fellow masters students and found that in a workshop setting there is too much pressure and not enough time to do an activity which starts as broadly as this. I myself did this activity over a week or two which allowed me time to think about it and revisit it. It was relaxed and unpressured, which the group settings lacked. Therefore sensitising participants to the subject/s to allow them time to think is important. Additionally doing these activities individually can relieve the pressure which can come about in a semi-formal group setting.

On the other end of the spectrum, specific questions can be great at cueing memories, however they are less generally applicable. I did a workshop with two friends during which we sat, talked and drew things. I had prepared a set of specific questions aimed to cue episodic memories, such as 'How did you get to and from school growing up?' The friends were aware of my project and were provided with an information sheet that outlined what we were going to do, sensitising them to the topic. One friend regaled us with a story of running through some trees to get the bus to school on time because she was always running late. She grew up in India and was told not to go through there in case of snakes, but she was more scared of missing the bus than she was of snakes, at least until she tripped in the trees one day, looked up and saw a snake above her. The specific nature of these questions worked almost instantaneously to cue memories and the comfortable setting amongst friends helped facilitate a positive experience. There were instances where one question would cue memories for one of us, but not for others, simply because they didn't have any specific memories related to the question. This didn't inhibit the experience overall though, as storytelling often cued related memories. The one drawback from this method however was that the cued memories weren't always meaningful. Instead, inviting an explorative approach allows the participants to have a lot more freedom in the memories they explore.

## The importance of social nostalgia

More than any other activity, I felt the most nostalgic when I was engaging in storytelling and reminiscing. At one stage I made a collage of my childhood home. Throughout all of this I was sitting, often alone, in the masters studio, scouring through photos of my home, through Facebook posts, searching for similar visual imagery on Google images. I made a collage consisting of pictures of wallpaper, of our stairwell bannisters, the 1cm square mustard brown kitchen tiles, my sisters, and my own bedrooms (fig. 12). But I didn't feel good, I didn't have any of the warm fuzzies that I associate with nostalgia. The collage felt factual; 'this is what my childhood home was like'.



Figure 12. Oswin, Ashley. *My childhood home – collage*. 2021

Then I had a supervisor meeting and I started explaining everything in the collage; how my family all hated the wallpaper, but it took us years to replace it. How my sister and I would run down the hallway and run up the wall to stop ourselves, until one day a hole appeared in the wall. How we all hated the very 70s kitchen tiles, but the kitchen was the last thing in the house to be renovated. How my dad had posted renovation updates on Facebook every day and tagged me, and all my university friends would see them and say my parents' kitchen was looking good. I was laughing while telling these stories; I felt nostalgic. It was that moment which really cemented the importance of storytelling as part of my project. As seen in Chapman's focus groups, when we have to communicate private meaning to others we start telling stories and a rich narrative emerges, drawing the meaning to the surface and making it explicit knowledge rather than tacit knowledge.

Additionally I found that this storytelling can in turn cue memories in others. We see this happen all the time in everyday life. When someone tells a story from their past and we relate to it, we share a similar story (fig. 13). In this way, these conversations were the most successful means of bringing nostalgic memories to the surface, and it feels more natural to do this than structured activities where you are tasked with remembering things on the spot. I found that I was more aware of these spontaneous moments happening in everyday life because I was sensitised to them, which indicates that if I could sensitise participants to these nostalgic moments, they may not need to do a structured activity. Rather, a journaling exercise in which participants record the stories as they come up would be more natural.

It was just after this supervisor meeting that we were plunged into another lockdown, and I had to pivot my project to do exactly this instead of nostalgic group activities. I started writing down all the memories that I had uncovered throughout my project as short stories and found that the process of writing these stories and reading them back usually cued even more memories. Reminiscing with my family in turn cued more memories, until I had well over 30 stories from which to explore designing and making. This journaling exercise proved the most successful of all the activities I tried because it involved storytelling, had a relaxed pace and allowed the memory retrieval to occur quite naturally.

My main finding from this process has been that the activity ideally should allow time for participants to explore their memories on their own or with loved ones. Storytelling and reminiscing is arguably the most important element, bringing the memory to the surface, and with the ability to cue other memories in both yourself and others, resulting in transferred nostalgia.

But now that I have a bank of memories, how do I design from them in order to facilitate emotional attachment? How is nostalgia being used in design currently? What are the important takeaways and the gaps in research? And what is the difference between designing for others, and designing for myself as a user-maker?

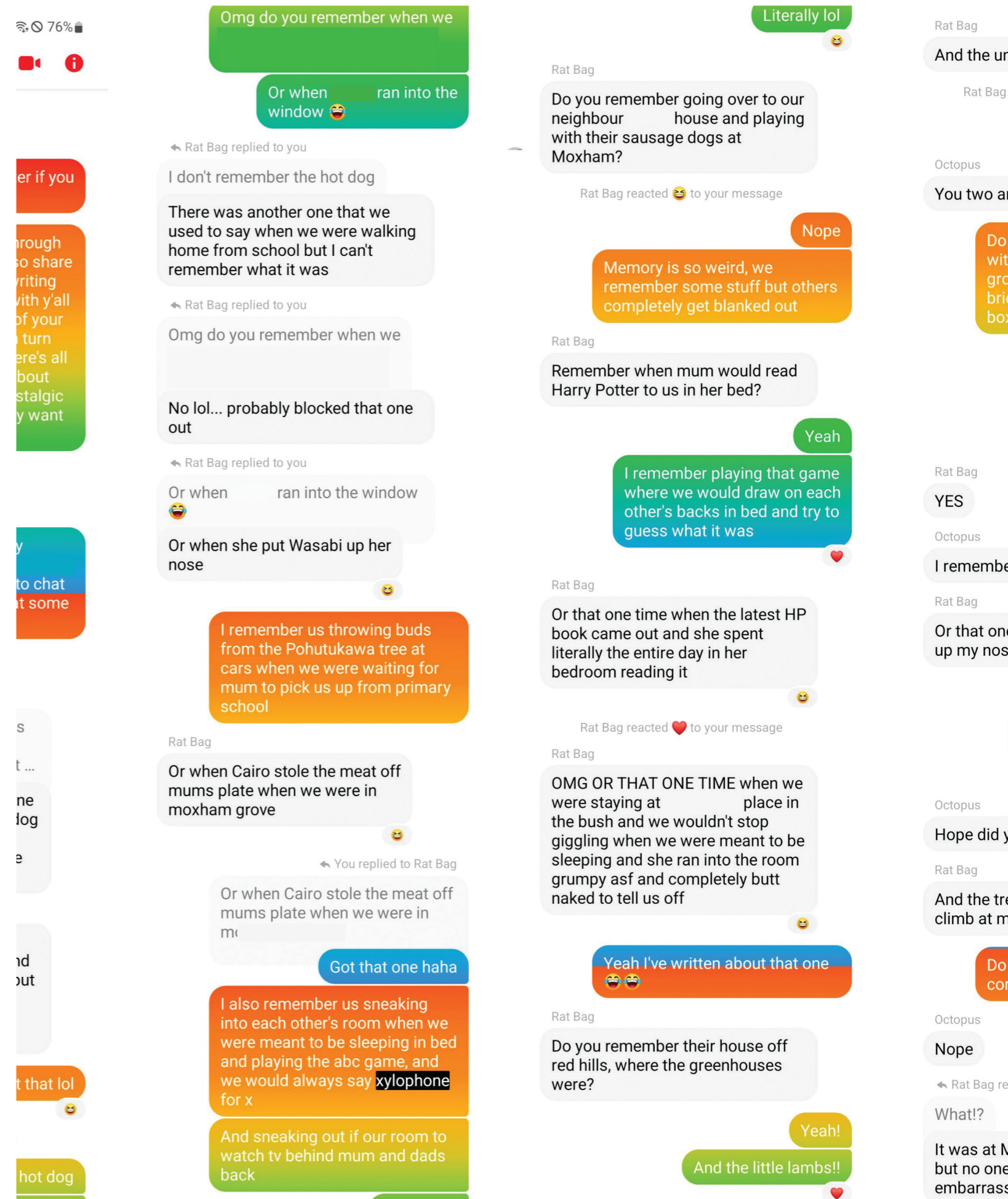


Figure 13. Oswin, A et al. Messages sent to Family chat. Facebook messenger, 25 Sept 2021.

Part three:  
Context

## Design precedents

### Nostalgia in design

Fig. 14 from Xue and Almeida can help us map different types of nostalgia within a design context. There are many examples of designs which capitalise on collective cultural nostalgia. Reboots of media such as Pokémon Go or the resurgence of Tamagotchi are the perfect examples of this, and these are largely successful because they allow the user to relive an experience from their childhood (McNear). Pokémon Go is particularly successful because it is an inherently social game which allows users to make friends over shared nostalgic experiences. Nostalgia can also be used at the visceral level as an aesthetic to grab the consumer's attention, potentially causing an impulse purchase. Whilst I do think there is some value in utilising cultural nostalgia as it often relates to personal nostalgic memories as well, I'm interested in exploring cherished episodic or repeated personal memories.

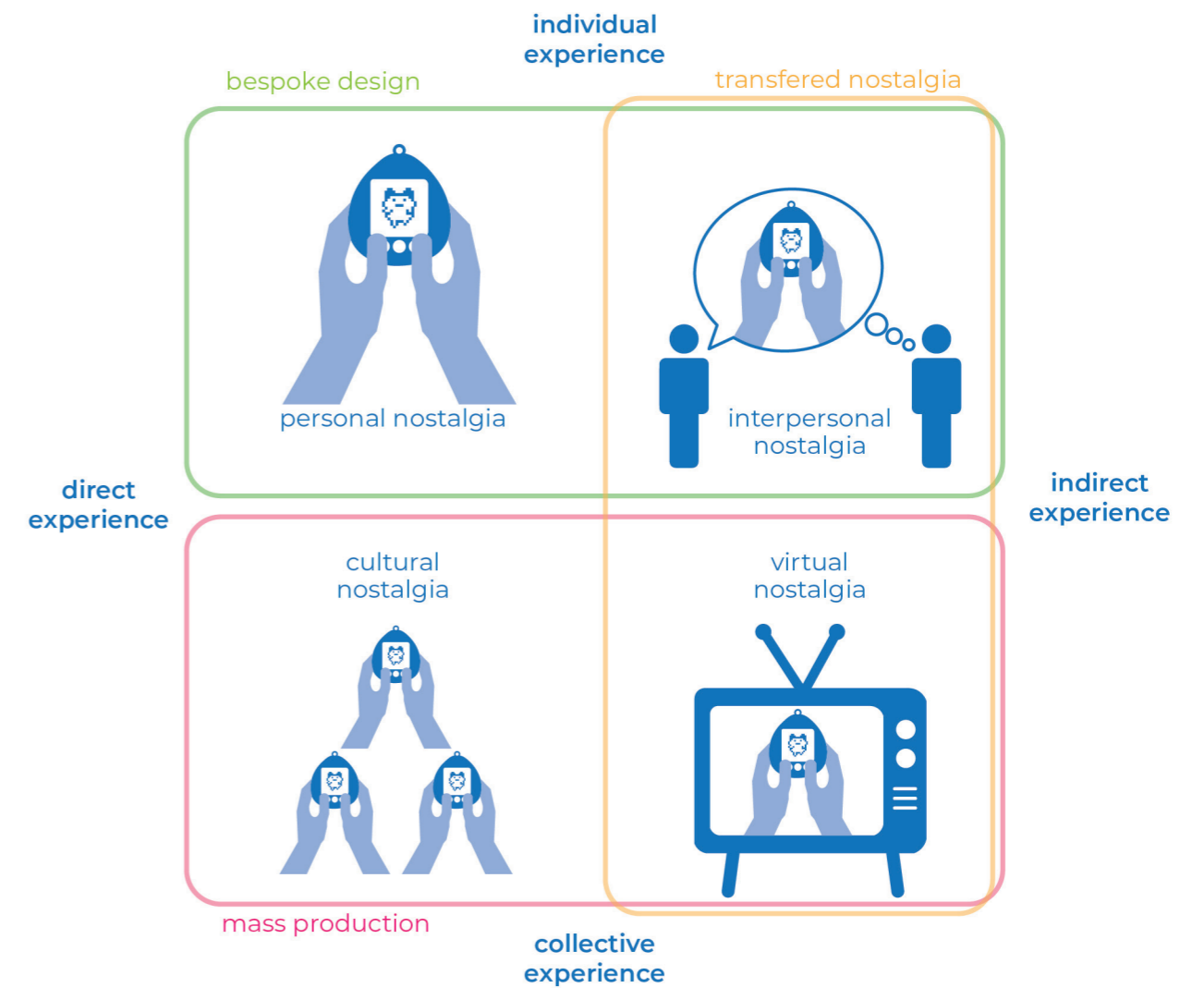


Figure 14. Adapted from Xue and Almeida; [Four types of nostalgia and their design value], 2022, <https://research.aalto.fi/en/publications/nostalgia-and-its-value-to-design-strategy-some-fundamental-consi>

There are very few designs which utilise individual memories or personal nostalgia, likely because this level of individualisation is at odds with mass production. Given the nature of bespoke design, however, there are some great examples of designing based on personal nostalgic memories in this area. Memory quilts for example are often made to mark momentous occasions, both negative and positive, from birthdays and graduations to deaths. The quilts are typically made with old textiles which have pre-existing mnemonic qualities. The act of intentionally putting them together to be an object of significance elevates their meaning. In this way the client is curating fabrics to tell an autobiographical story. For example, Teddy's Birthday Quilt, a commissioned piece by Zak Foster, was made using fabric contributed by Teddy's family to mark his 40th birthday (fig. 15). Each textile had a story associated with it so Foster made a 'swatch album' to accompany the quilt and record these stories for future generations. This quilt represents Teddy's familial connections and history, so much so that Foster calls it an autobiographical quilt. The fact that it is a gift and was intentionally made shows that his family love and care about him and value their relationships with him.

There are a few things which make memory quilts highly successful in facilitating nostalgic emotional attachment. Firstly, they are often made as gifts to symbolise relationships between loved ones and to mark momentous life occasions, both of which are common features of nostalgic memories. The cloth used is known to the user; it has existing meaning and is therefore a visual cue for this meaning. Secondly, the process of commissioning a memory quilt and gifting it would involve social nostalgia, the sharing of these meaningful memories. Social nostalgia can be further defined as 'reminiscing', which involves discussing the memory with those who were present in the memory, or 'storytelling', which is discussing it with people who weren't part of the memory (Zijlema 2). In this way, the positive effects of social nostalgia will help facilitate a positive designing and making experience, which can positively influence emotional attachment. As we know from the research from Routledge, these are all key aspects of nostalgia, therefore memory quilts are an example of how nostalgia can be used to facilitate emotional attachment.

There is something to be said about the intentional process of making something involving nostalgic memories. The process of curating and reflecting seems to honour and elevate the meaningfulness of the original memory, which makes me wonder how this process also strengthens and enriches relationships. It's also clear that social nostalgia, storytelling and reminiscing plays a large role in facilitating a positive experience and facilitating emotional attachment for the users. Whilst I have explored this while cueing memories, I would like to further explore how I can bring this into my own design and making practice by involving others in the process.

Whilst Foster's quilts use textiles with existing meaning, this isn't something I'm looking at doing in my own practice. However what causes the textiles to be cues are their familiarity with the user; their look, feel, sound and smell. How can I capture sensory information to create something new yet familiar?



Figure 15. Foster, Zak. *Teddy's birthday quilt*. 2021, ZAK FOSTER, <https://www.zakfoster.com/teddys-birthday-quilt-1>. Reproduced with permission from Zak Foster.

In addition to the attachment towards the quilt that the recipient, those who gifted it and Foster himself likely feel, I also think we can observe an example of transferred nostalgia in the engagement with Foster's process on social media. A lot of Foster's posts on Instagram focus on telling the story behind his quilts, whether it be the history of the fabrics, the occasion the quilt is marking, his design inspiration or the making process. This storytelling adds depth to the quilts, engaging his audience and getting them invested in the final product outcome. I myself have experienced this investment, having followed Foster for a few years now. The nostalgic stories behind the quilts make the viewer nostalgic, in turn elevating the objects to items of an almost reverent value. This narrative transforms the object from a viscerally pleasing quilt, to a quilt with a richly reflective and relatable meaning. This mirrors what Chapman found in his focus groups; storytelling results in transferred meaning. This further demonstrates the effect of storytelling in facilitating emotional attachment through transferred nostalgia. It's worth exploring the value of designers creating based on their own personal memories and utilising this to facilitate attachment in consumers.

## Social nostalgia and user makers

Whilst I have mentioned how nostalgia, in particular social nostalgia, can facilitate a positive experience, utilising this in a creative context with users and its impact on emotional attachment is an area which has never been explicitly studied. Neumann et al. sought to explore how artefact creation and exchange would stimulate memory sharing, however their process resulted in emotional attachment between the participants and their artefacts and I believe also utilises social nostalgia successfully.

The researchers asked pairs of participants who had a shared meaningful experience to reminisce and individually create artefacts to record the personal memory. For example, one person created a puzzle, a digital audio recording and a collage. The objects were then exchanged between the pair who discussed their artefacts and memories together (Neumann et al. 4). They termed this process memory dialogue.

Although the authors do not use the term social nostalgia, this is an example of it in practice. Participants' memories fit the definition of nostalgic memories; they are positive, meaningful memories involving close ones. The participants even discuss how these memories were defining moments in their relationships (Neumann et al. 6). The creation of artefacts and discussion of these memories with each other is a practice of reminiscing, which as a process has positive effects, as discussed earlier.

The participants found the process of creating, exchanging, and reflecting particularly meaningful and were surprised by how special the resulting artefacts were to them. They go on to say that the process even elevated the value of the memory to them and that the resulting artefacts should be perceived as "tokens of gratitude to the other person and appreciation of their shared memory" (Neumann et al. 9).

This research suggests that the designing and making process resulted in attachment due to the nostalgic nature of the memories and the reminiscing process participants engaged in. The artefacts have mnemoactive abilities, they are able to trigger memories of both the original memory and the reminiscing process. It also shows that this process of reflecting and memorialising elevates the meaning of the memory and the resulting artefact.

# The creative experience

## User involvement and emotional attachment

Facilitating a positive designing and making experience by utilising the positive effects of nostalgia is something I've already mentioned, but what else impacts emotional attachment when making for yourself?

I grew up sewing. My mum is a quilter and taught me how to sew as a young kid. I took fashion classes in high school and have made many garments for myself, but I rarely wore them immediately, if at all. Sometimes it was because they didn't look the way I wanted them to, or I was silly and didn't toile them enough so they didn't fit properly. Sometimes the sewing was shoddy and I didn't want to be seen in it, or I was rushing to get it done in time for an assessment and was stressed during the making experience. Or, my personal favourite memory, I accidentally overlocked the dress in half at the very end and had to patch it up with a belt of contrasting fabric. Of course, there have been moments where, a year later, I've found the garment in my wardrobe, can't remember what I hated about it and wondered why I haven't been wearing it. And there are times when I've been very happy with what I've made and have loved wearing it, usually when everything has gone according to plan or when I have taken breaks when something goes wrong and taken time to fix it.

When you analyse your experience in comparison to your attachment to the object, it's very obvious that there's some kind of correlation. So why do these experiences throughout the making process matter so much? And how might nostalgia impact this process?

There are two areas of design research which can provide insight into this; product personalisation and research into user-makers. Both areas tend to have smaller sample sizes which allows for richer, more in-depth information to be collected, but also limits the ability to generalise the research. Product personalisation research focuses on post purchase personalisation of ready-made products and gathers data through interviews or questionnaires. Alternatively, user-maker research tends to be autoethnographic, qualitative and centred around fashion and textiles. Both areas provide insight into why users value having input in the design and making process, the impact this has on emotional attachment, as well as how to facilitate this.

Research into emotional attachment through product personalisation is scarce, however the research that does exist is consistent and has some valuable insights. Grant et al. conducted semi structured interviews with users who had personalised a variety of objects, such as cars and clothing. They found that users feel connected to their personalised products due to the amount of time and effort invested, strong emotions/ memories associated with the object and a sense of achievement in successfully personalising them (Grant et al. 21–24). Their main suggestions for designers are to allow the user to have control and creative freedom, and to create an experience through which emotions and memories are made (Grant et al. 27). Similarly, Mugge et al. surveyed students in the Netherlands, where there is a culture of personalising bicycles. They found that a key factor in product attachment was the amount of mental effort invested in the personalisation (Mugge et al. 472). It should be noted that product personalisation does

not typically occur as part of the study, rather the researchers survey or interview people who have independently personalised products in the past.

Whilst this research indicates that there is value in pursuing user involvement in design, autoethnographic research can provide more insight into the psychological nuances of this in practice. As the nuances of the making experience and its impact on emotional attachment are complex and yet little understood, autoethnography has a valuable role here because it involves recording and reflecting critically on your own experience, which can bring deeper knowledge to the surface than traditional research methods. There is a significant amount of autoethnographic research into user-makers in the fields of textile and fashion design. Holroyd's autoethnographic research into the user experience and its effect on product-attachment is particularly insightful. Her research centres around amateur fashion and fashion textile makers and critically examines this from a sustainability perspective.

Holroyd found that the end product meeting expectations has more of an impact on product attachment than the making experience when you are making objects with the intention of using them (Holroyd 82). This holds some relevance in an interiors context as well, as we often surround ourselves with items which resonate with us on a reflective level and capture our identity. Additionally, if something does not meet our expectations, it can be perceived as a failure regardless of whether the object is a fashion or interiors object (Chapman, Meaningful Stuff: Design That Lasts 43–44). However, creating objects to be worn on the body comes with expectations of how the garment will make us look and convey our sense of identity, therefore the intimacy between user and a product worn on the body elevates the importance of the final product meeting our expectations further.

Holroyd also discusses the impact the making experience can have, as the end product can cue our memories of the design and making process (Holroyd 84–86). If the process is enjoyable and the end product meets our expectations, we will then associate these positive memories with the object and have a positive emotional attachment. However if the process is frustrating or evokes other negative emotions, the experience and emotions can be associated with the finished product and taint it's meaning, creating a negative emotional attachment. Alternatively if these challenges are overcome successfully and we are happy with the finished product, there can be a sense of achievement in completing it. This narrative highlights the importance of having the skill level or support to successfully navigate challenges, or having realistic expectations of what you can achieve.

Sanders' Levels of Creativity (fig. 16) can help us understand how people with varying levels of abilities would require different levels of support. If, for example, people of varying skills wanted to alter a sewing pattern to fit themselves perfectly, an advanced sewer would likely need no support, whereas an intermediate sewer might need help with advanced pattern alterations. On the other end of the spectrum, a beginner sewer would likely find this unachievable without a high level of support, likely needing to learn how to read a pattern as well as altering the pattern. Without access to this high level of support, the creative experience would likely be frustrating and result in an unsatisfactory garment and negative attachment. Whilst my project does not involve users in the making and designing process, it's useful to consider my own skill level and how this will affect my experience. Additionally, this is something that would need to be considered if I were to engage with users in the future.

To summarise, we know there are a few key factors to consider when involving users in the design/making process or when making something for yourself with the aim of emotional attachment.

- the user should have creative autonomy
- the user should put mental effort into the designing of the product
- users should be supported at their current skill level or in upskilling which can help ensure the following
- the experience should be an overall positive one
- the end product needs to meet the users' expectations

I have particular interest in exploring further the impacts of differing skill levels on the creative experience. How do the challenges of learning a new skill impact the experience? How does a lack of experience in a process impact the disparity between a maker's vision and the resulting object? How does this compare to creating something using a process which you are highly skilled in? How does outsourcing the making impact emotional attachment if users are still involved in the designing process? And how does nostalgia impact this experience?

the levels	interest and skill level examples of	creative engagement
doing	minimal interest no special skills	consuming garments primarily functional
adapting	some interest basic skills	altering a garment or putting together outfits
making	genuine interest intermediate skills	making a garment from a pattern
creating	passion advanced skills	making a garment from scratch

Figure 16. Adapted from Sanders, L; *Levels of Creativity*, 2022, <https://doi.org/10.1177/0887302X15572877>

Part four:  
Process

## Designing and making from memories

From the short stories I wrote, I chose the story of my sister, Chelsea, and I playing games and sneaking out of bed to watch TV to take forward into the designing and making phase. My focus during this part of the process was to create a mnemoactive object which represented both the original memory and the memories of designing and making. I was considering what the cues were for this memory and exploring which elements I could bring into the designs. This involved a sensory analysis, considering the people in the memory, the places and the keywords or topics from the story.

The story can be split into three parts (a beginning, middle and end) and occurs in two locations. The beginning is my sister and I sneaking into each other's rooms, talking from our beds and playing games together. The middle starts with building the anticipation of being caught out of bed; sneaking down the hallway, being careful of the creaking spots and watching TV behind my parents' backs. The final part, the peak of the story, is the sound of my parents' footrests going down and the quick escape we have to make back to bed. From the context and locations of the story I decided my design outcomes quickly. I wanted to make pyjamas and a rug to represent the two locations in the story.

I also wanted these two outputs because they required different skills and processes which I have varying levels of experience in and I was interested in how this would impact the attachment I felt towards the resulting objects. I was also interested in how outsourcing the making would affect my attachment.

Whilst I would have loved to involve Chelsea in the making experience to fully utilise social nostalgia, due to being based in different cities this wasn't possible. Instead I involved her in the process by reminiscing with her, discussing what she remembered from this memory, and getting her to partake in the design and decision making process. I was consistently sending design work to my family to get their feedback and input as well. Meanwhile I engaged in storytelling with my friends in the masters programme and we often had social design sessions alongside each other.

For this phase of my project, I followed an iterative double diamond like process which is common in textile design. This involves explorative divergent thinking, coming up with lots of ideas, and convergent thinking, which is synthesis and decision making. The two diamonds represent four phases in the design process; Discover, Define, Develop and Deliver (The Double Diamond) (fig.17). This structure works well as a starting point, however I find it is oversimplified. My own process is fluid and contains lots of branching diamonds within the two diamonds, with continuous divergent (explorative) and convergent (synthesising and decision making) thinking. For me this involves exploring what I want the design to achieve by iterating a large variety of drawings which communicate design ideas, meanwhile critically reflecting upon and developing the designs throughout the process. My process is also very much 'throwaway' design, which is roughly designing to communicate an idea without investing a lot of time, which I then go back to and refine if I choose to pursue it. I find this rough design method prevents me from focusing too much on perfection and helps me explore, analyse and develop my ideas quicker.

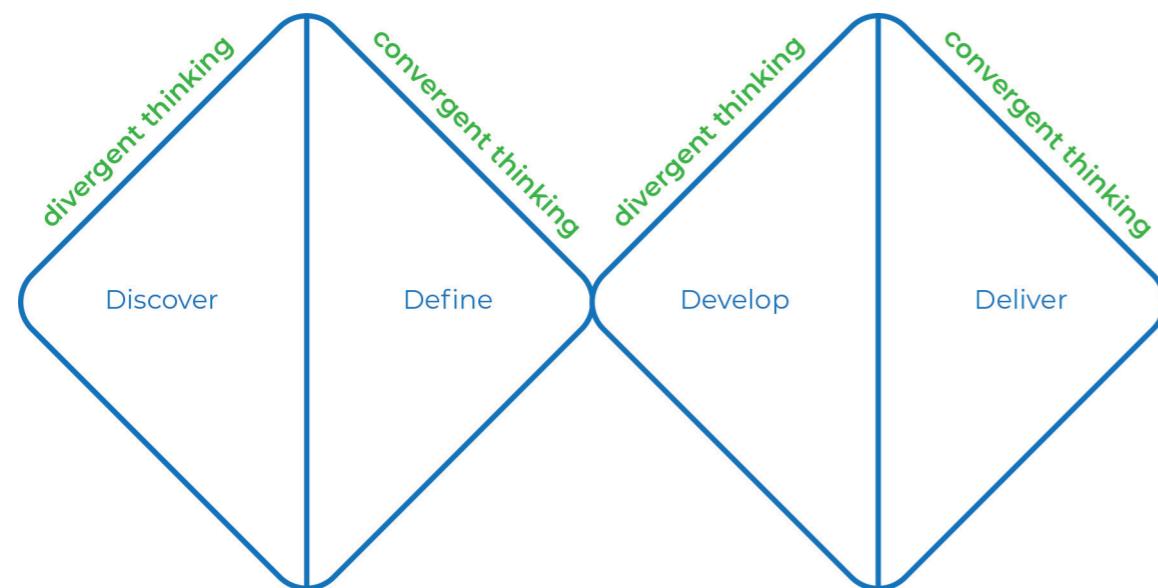


Figure 17. Adapted from The Design Council; [*The double diamond methodology*], 2022, <https://www.designcouncil.org.uk/our-work/skills-learning/tools-frameworks/framework-for-innovation-design-councils-evolved-double-diamond/>.

## The rug

To design the rug I used sensory analysis (taste, smell, touch, sight, sound and movement) of the memory as a design tool to capture and recreate the experience. Sneaking down the hallway had visual, auditory, tactile and kinetic elements. Throughout the process I was exploring what I wanted the rug to achieve and what would make me value it the most. I found that the rug shouldn't just be telling a story, it was more meaningful to recreate the experience. While I was designing the rug, I was also learning both hand and machine rug tufting and developing my dyeing skills to be able to create the rug myself (fig 29-30, 33-35).

A key part of the story involved my sister and I attempting to prevent creating sound by avoiding the parts of the floor which we knew creaked. Whilst there were small areas which creaked throughout the entire hallway, the loudest area was the alcove where the bathroom and study branched off. We had to either slowly step on the outskirts of this large patch or carefully and quietly leap over it. I explored a variety of ways to portray this by visually representing creaky patches, usually with large patches in different colours (fig 23). I also considered representing this through the rug tufting, using different pile heights or through the contrast of cut and loop pile. I finally looked at visually representing the sound, doing some research into the mapping of sound and exploring how creaks would be visually represented (fig 24).

However, I found this interpretation didn't feel right because it didn't allow me to create an object that led me to reexperience the memory. Visually representing the creaking patches or the sound might create a visually interesting rug, but it doesn't act as a cue for the memory for me. If we look at nostalgic designs such as Pokemon Go, we know they're successful because they recreate an experience which is nostalgic. I therefore decided to make a hidden noisy patch so that the experience of walking on the rug mimics that of walking down our hallway. The intimate knowledge of knowing where the creaks are is the only way to avoid it. This also sets the rug apart from other rugs. I can imagine visitors to my home standing on the rug and enquiring as to why it makes sound, which could prompt storytelling and transferred nostalgia. It also turns my memory into an experience for others.

I considered both low tech and high tech noisy patches, testing plastic underneath the rug and exploring the use of e-textiles with a pressure sensor and a speaker to play actual creaky noises. The most important thing for me was the sensitivity of sound to different pressures, the speed that the pressure is applied, and for there to be different sensitivity in different areas. The actual creaking sound was less important to me because the sneaking and the avoidance of noise was the key part of the story. Through research I found that a high tech version which had the sensitivity I wanted would be difficult to achieve. Whilst this is something that I could explore in the future, the plastic under the rug creates the nuanced experience of sneaking better than a basic pressure sensor would. Therefore I created textured cellophane and tucked it into a pocket under the rug.

I also wanted to capture my own and my sister's footprints to show our movement through the space. I tried a few methods for recording my own footprints and found walking on a sheet of card with wet socks worked the best. This revealed where I stepped as well as where heavy pressure was applied from my feet, with some areas of the card soaked while others were just damp. This process involved me blu tacking my phone to the ceiling, wetting my socks in an old water filled takeout container, pretending I was sneaking down the hallway to watch TV, then sneaking back. I then yelled 'capture' at the ceiling, prompting my phone to take a photo (fig. 18).

I got Chelsea to do a similar DIY process at my parents' house. She set up an area the right size using brooms and rakes as guides, and wet her socks in our dog's paddling pool while mum stood on the deck above, videoing the process. As my sister snuck down the 'hallway' and sat down, our fetch obsessed dog dropped her ball for Chelsea to throw, coming to rest in the marked area (fig. 19). I decided to include the ball in the rug design because it was a funny and serendipitous moment. Chelsea can also be heard saying 'yuck, wet socks' in the video, a sentiment which I agree with. There's something deeply unpleasant about wearing wet socks. Doing it on purpose, and in my own case for several hours, is a weird and novel experience. The rug has become a mnemoactive object which reminds my sister and I of this designing experience, in addition to the original memory, deepening the storytelling and the connectivity we feel to the resulting rug.

I explored a variety of scenarios to visually represent the footprints, such as sneaking back and forth multiple times to symbolise the ad breaks when my parents would get up, or doing it dozen of times to capture the well-worn track I would walk over time. Ultimately I decided a single set of footprints from myself and my sister best represents the story as an episodic memory. I also carved our footprints into the rug, giving it the memory of our movements and creating a sense of familiarity when our feet nestle into the wool. The footprints also subtly communicate where the noisy patch is, through the large gap without any footprints (fig 24-27).

The shape of the rug references the shape of our hallway, L shaped with an unusual curve around the stairs, with the colour palette inspired by the colours of my sister's room, my room, the clothing we wore as children and the house (fig. 31). I considered doing the footprints in either the same colour or a slightly different colours as the background to make them extremely subtle and to further create a sense of intimacy between my sister and I and the rug (fig. 25-27). However I wanted to both showcase the story and to celebrate the dye work I had done (I did a total of 144 dye baths exploring colours), therefore I decided to tuft the footprints in bright colours instead. To differentiate between our footprints, my own are in yellow and my sisters are in green.



Figure 18. Oswin, Ashley. *Wet footsteps from above*. 2022 (opposite)

Figure 19. Oswin, Wendy. *Screen shot from video – Chelsea's wet footsteps*. 2022. Reproduced by permission of Wendy Oswin and Chelsea Oswin.



I considered representing visual elements from the location to act as visual cues, such as incorporating imagery of the wallpaper, the stairway bannisters or the kitchen tiles, but quickly moved away from this idea (fig. 23-24). Whilst these things are visual cues which connect to my childhood home, they're not viscerally appealing to me and they don't relate to the experience of the memory. I ended up examining a more subtle element at someone else's suggestion; the light in the hallway. My sister and I would turn all the lights off in the house when we went to bed so only the lounge and kitchen lights were on. We claimed we needed relative darkness to sleep, which had a measure of truth to it, but it also had the added benefit of making it less risky to sneak out of bed. If the stairwell light was on it illuminated the entire hallway, so we would turn it off claiming it made it hard to sleep, then wait a few minutes and sneak down the hallway to watch TV with only the dimmed light from the lounge and kitchen illuminating the space.

Our home has since been renovated so doorways and lights are now in different places. Instead I imagined where the lines of light would fall and did light studies, photographing multiple light sources interacting and creating shadows and pools of light (fig. 20-22).

Within the rug I represented this by using a four colour gradient, with highly saturated colours tufted in the shadows and lighter colours tufted where the light fell. I also mixed the colours together at the edges where the shadows were less defined because the light source was further away (fig. 22). When on the floor, this gives an instant impression of a hallway at night, subtly capturing the doorways and inhabited rooms, transporting me back to my childhood home and providing the viewer with context and direction in relation to the story.

Throughout this design process I was exploring creating objects which capture sensory information to act as cues to the original memories and the memories of designing and making. I found the process of analysing the memory and re-enacting it brought more pieces of the memory to the surface. Walking in wet socks, pretending there were creaky spots made me remember that there was one big creaky spot in the middle. Someone suggesting I examine the lighting in the hallway made me remember turning all the lights off throughout the house. Drawing the view looking towards the lounge and the floorplan of the house made me remember the curved railing around the staircase. The act of analysing and capturing all these things brought this deep knowledge to the surface and resulted in an even richer sensory memory which the rug represents.



Figure 20. Oswin, Ashley. Photograph of Drawing light. 2022.



Figure 21. Oswin, Ashley. *Light through a doorway in the museum building*. 2022

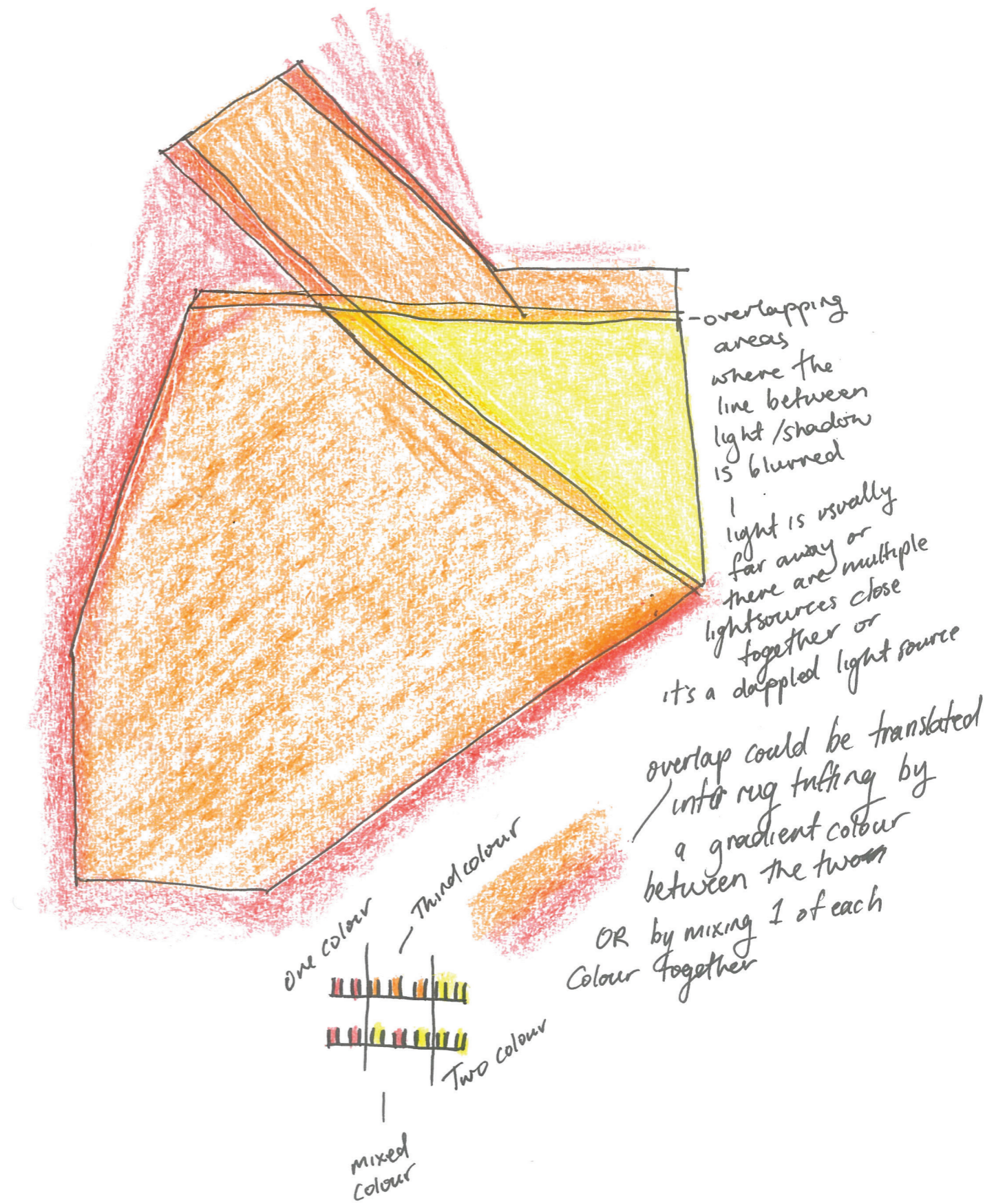
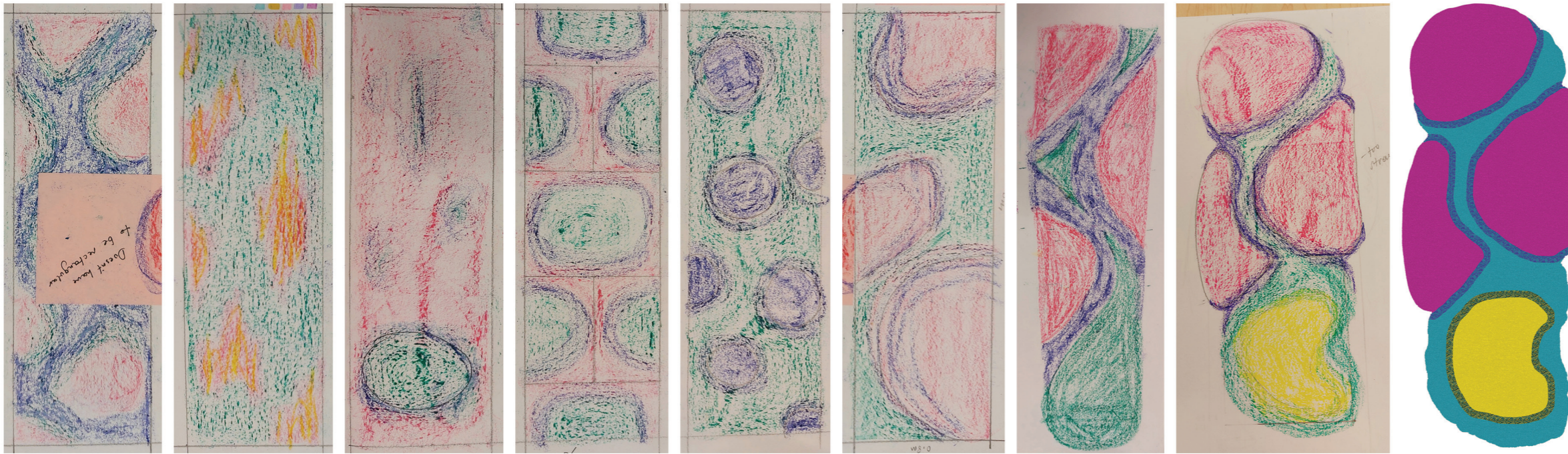
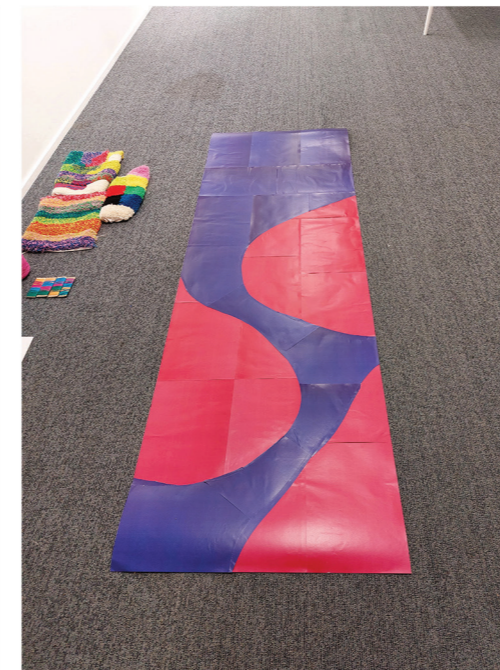
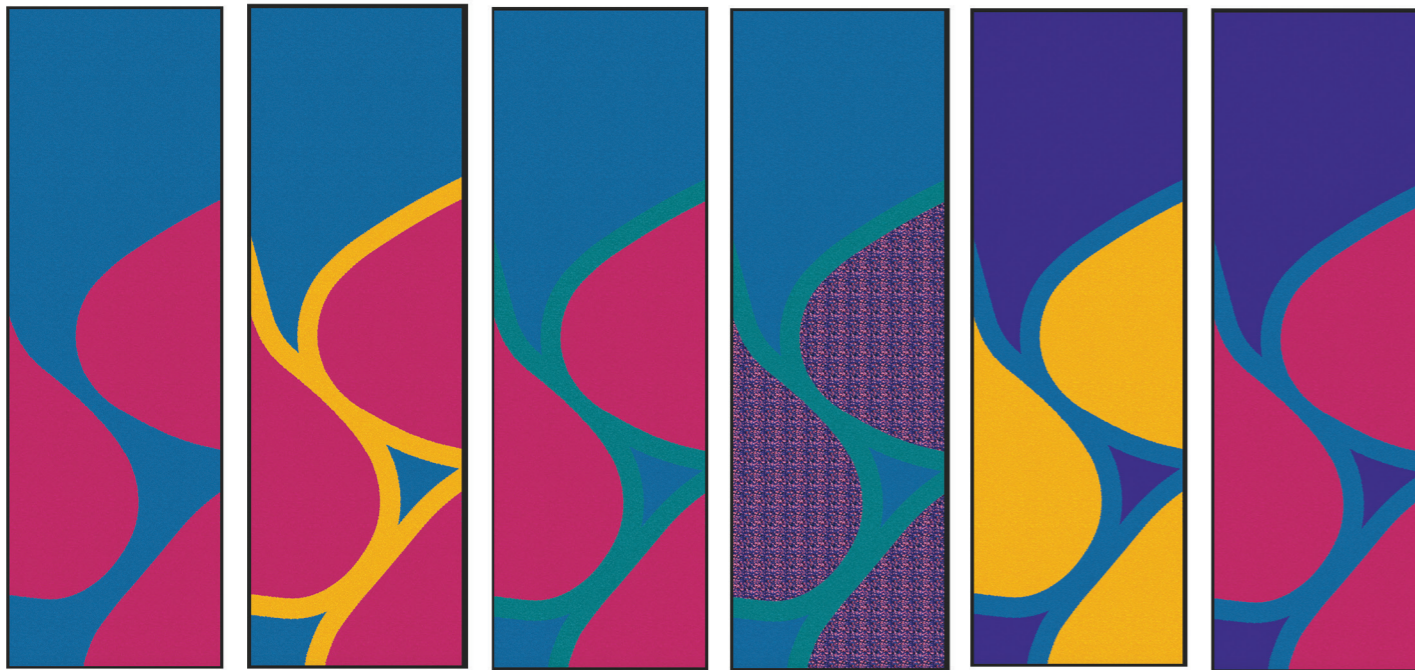


Figure 22. Oswin, Ashley. *Crayon drawing of light and shadows*. 2022



Visualising creaky patches using colour

**Rug design development**



Colour variations  
Making a 1:1 scaled version

Visualising sound waves - calm outside creaky areas, sharp inside



Using visual imagery from my childhood home - grid from kitchen tiles

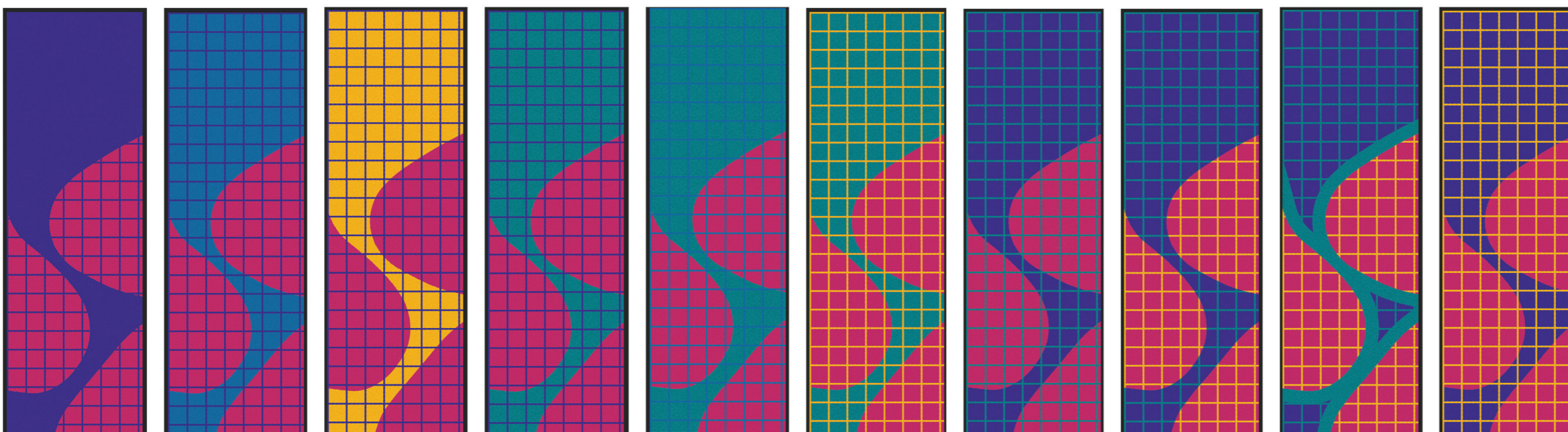
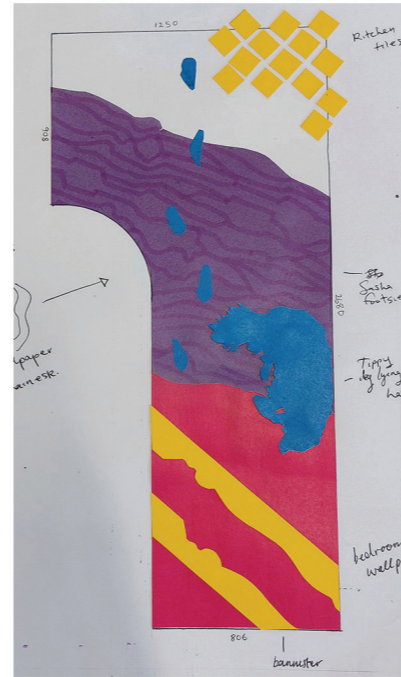
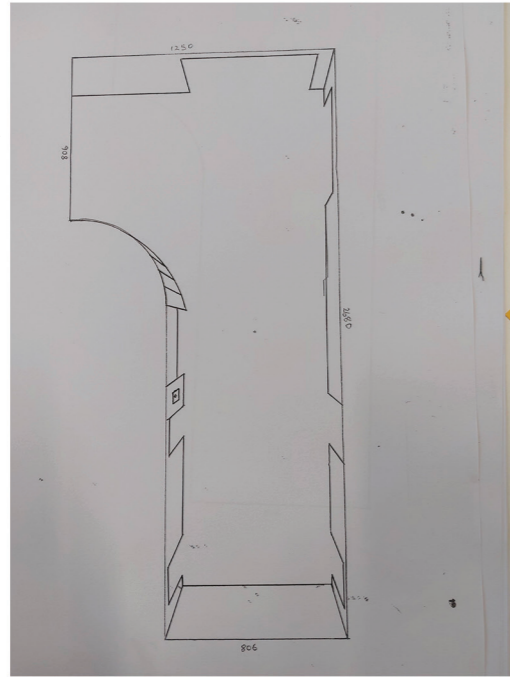


Figure 23. Oswin, Ashley. *Rug iterations* page one. 2022

Birdseye view of hallway

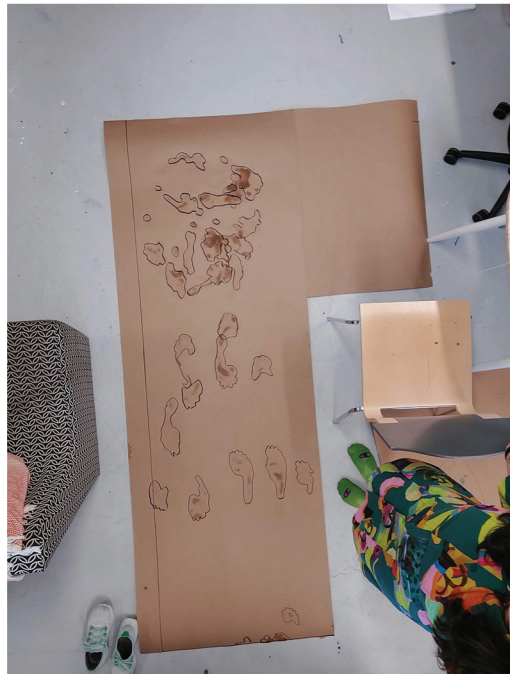


Using other memories of the hallway (dogs) and visual imagery from the home

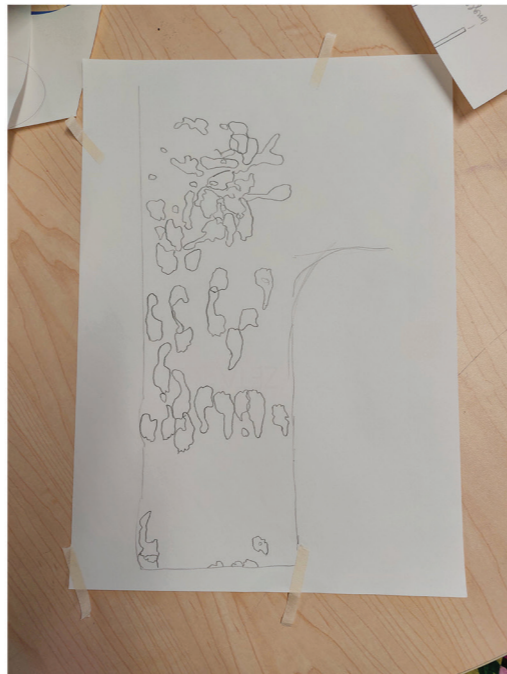


Combining different parts of the story - using my sisters handwriting of the alphabet in the rug design

Figure 24. Oswin, Ashley. Rug iterations page two. 2022



Mark making with my feet, exploring different variations (one journey, lots of journeys)



Visualising sound based on research into sound mapping



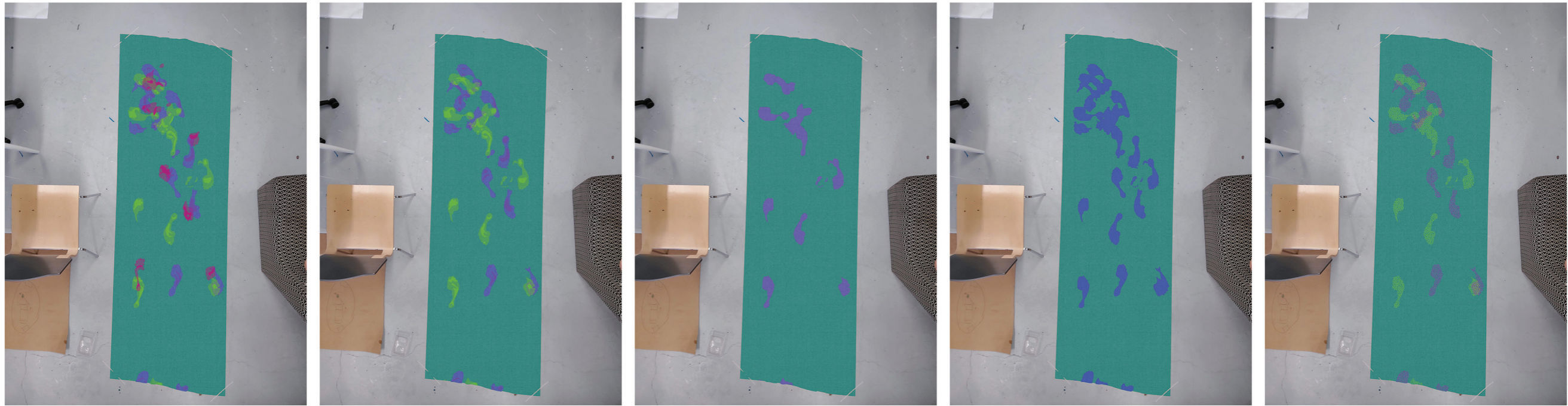


Figure 25. Oswin, Ashley. Rug iterations page three. 2022

Footprint explorations:

- number of footprints
  - multiple journeys - the well worn track
  - two sets of footprints - Chelsea and I
  - one set of footprints
- communicating footprints through texture
  - different pile heights
  - loop and cut pile - different textures
- colours
  - colour gradients to show depth of footprints or overlapping footprints
  - footprints the same colour as background, subtly different colours, vibrant colours, mixing two colours together

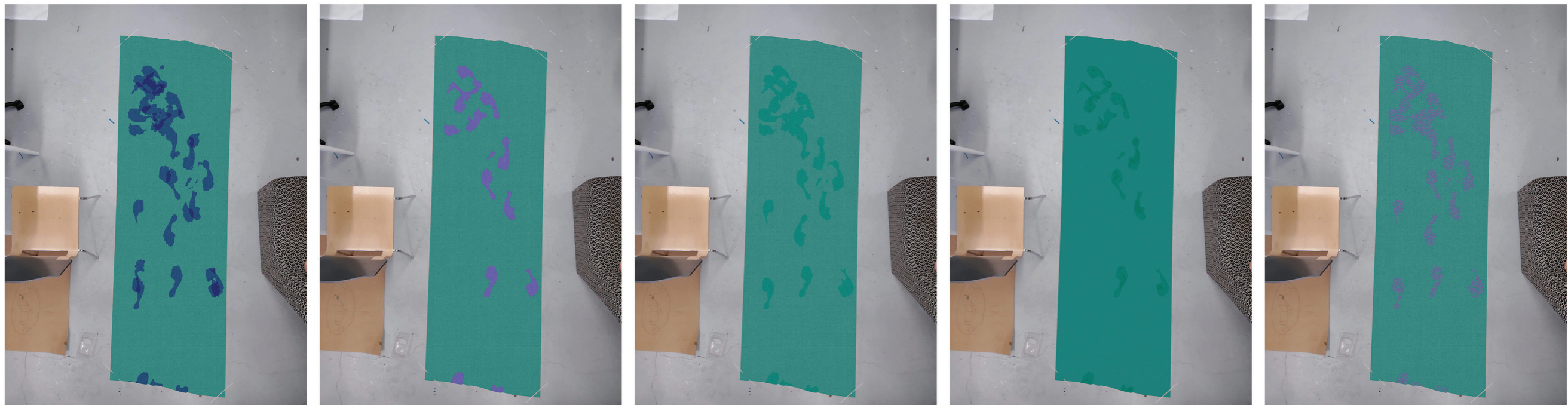
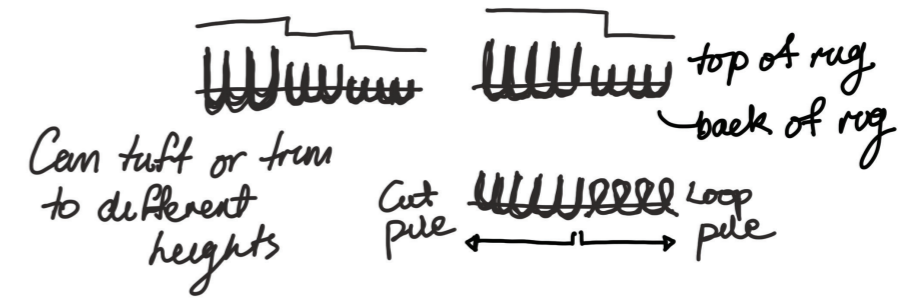




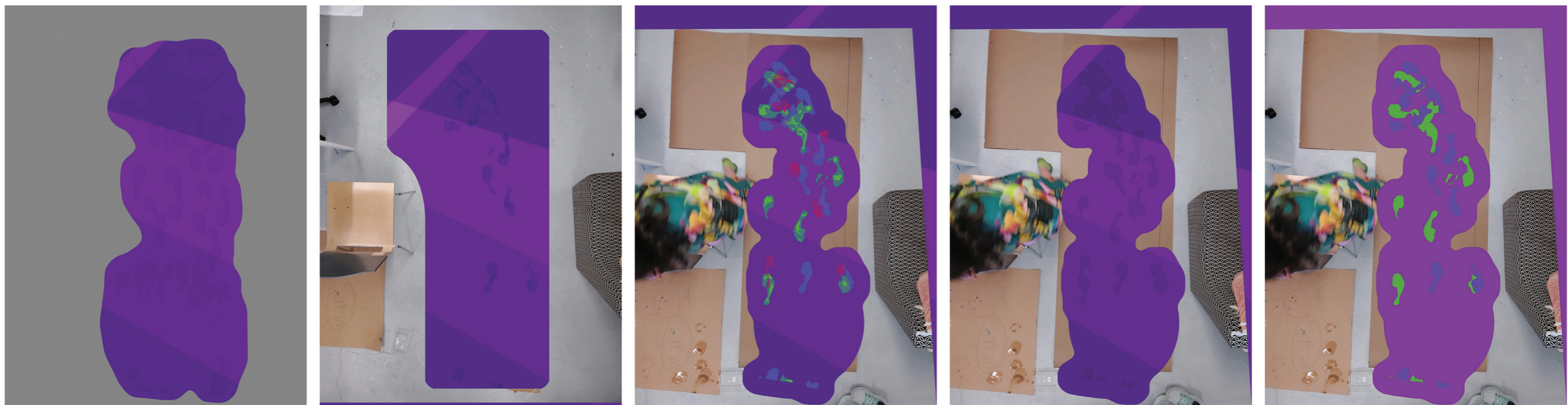
Figure 26. Oswin, Ashley. *Rug iterations page four*. 2022

Continuing footprint explorations from last page

Exploring shape of the rug:

- shape of the hallway
- shaping around the footprints for an abstract shape

Introducing visualizing the light and shadows in the space



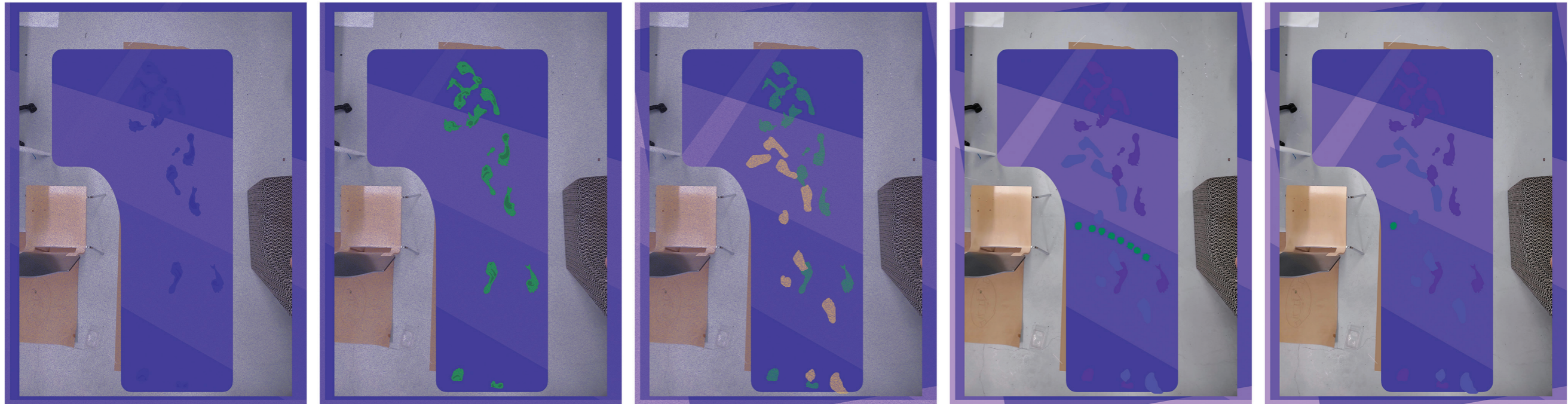
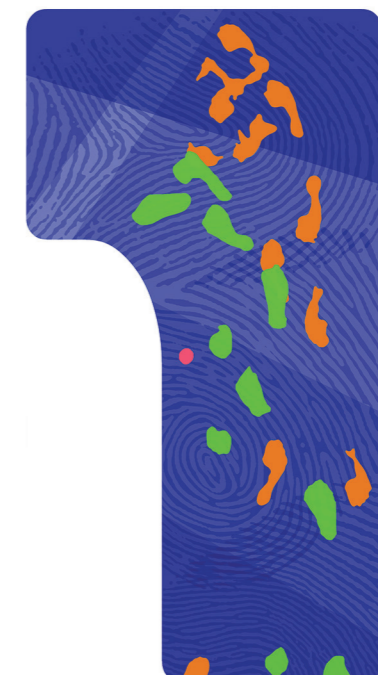
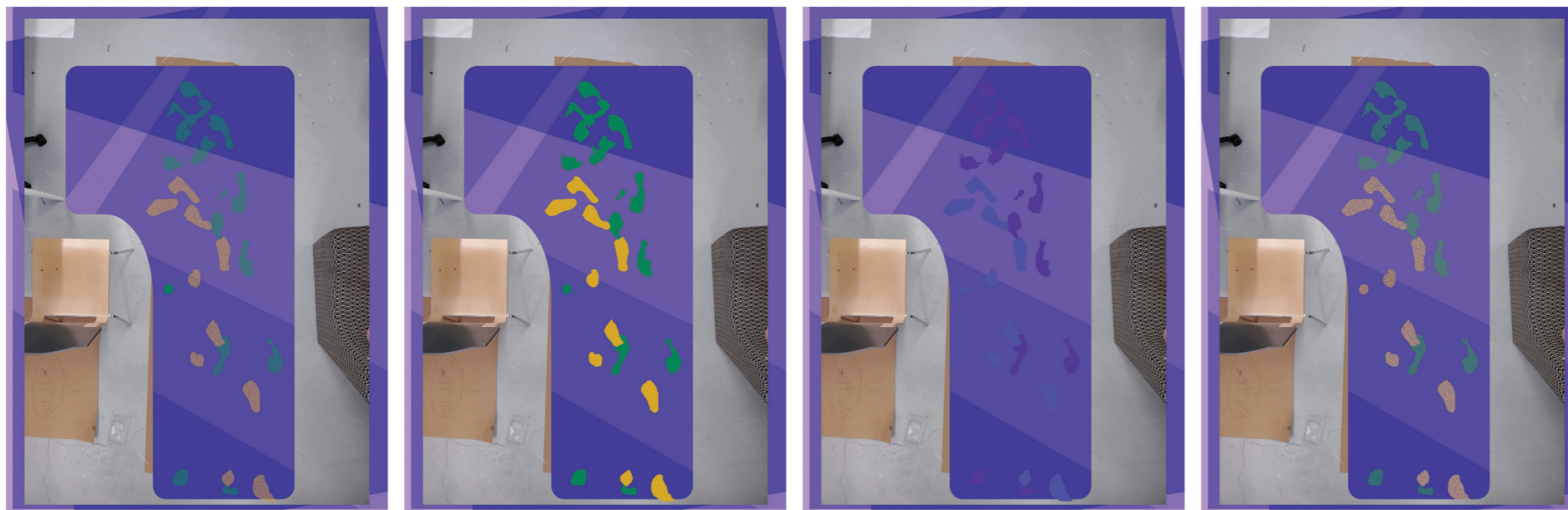


Figure 27. Oswin, Ashley. *Rug iterations* page five. 2022

Continuing footprint explorations and developing the light and shadows

Introducing my sister's footprints and the dog's (Willow) ball

Brief exploration of using toeprints for an overall textural element



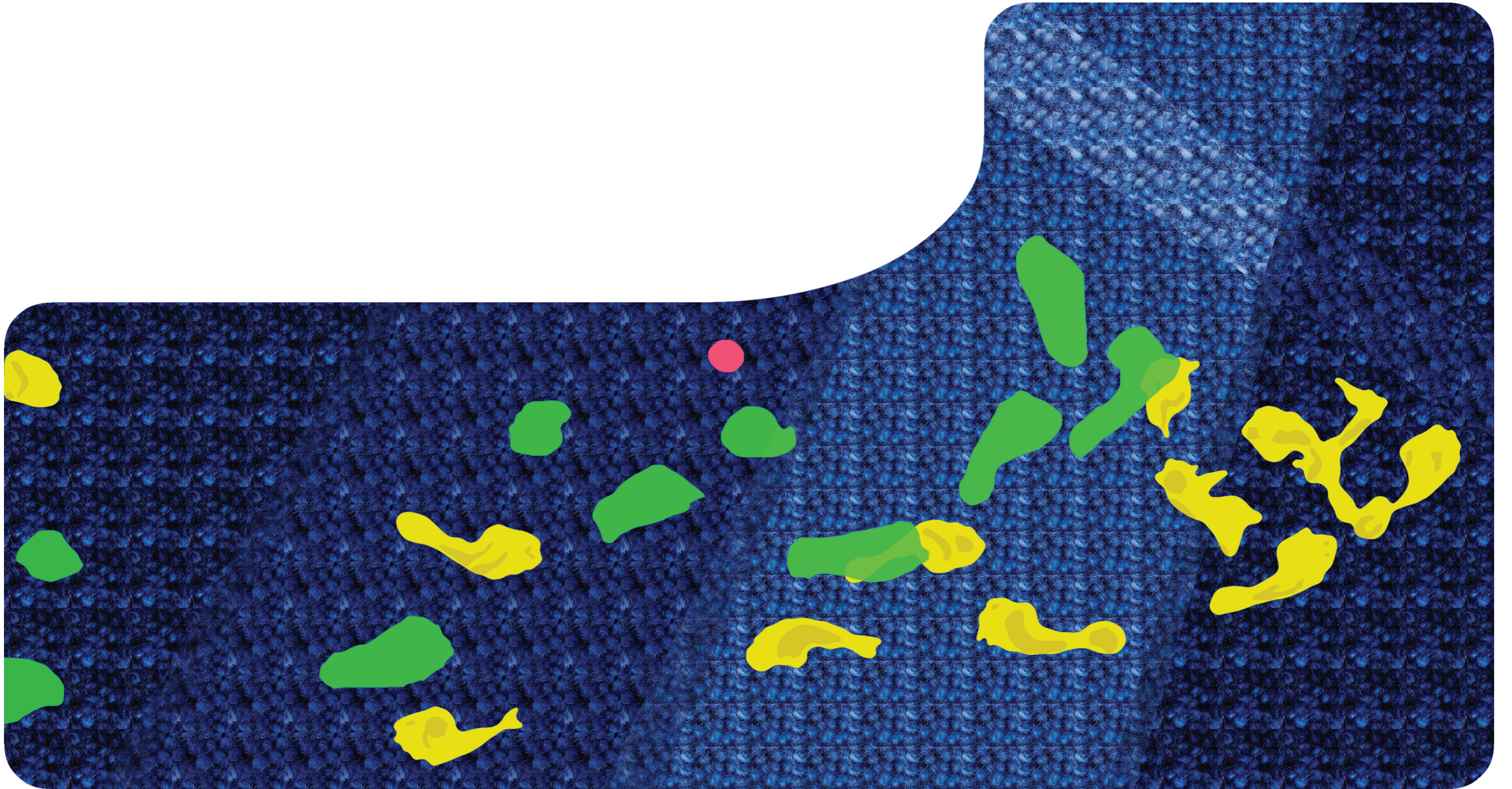
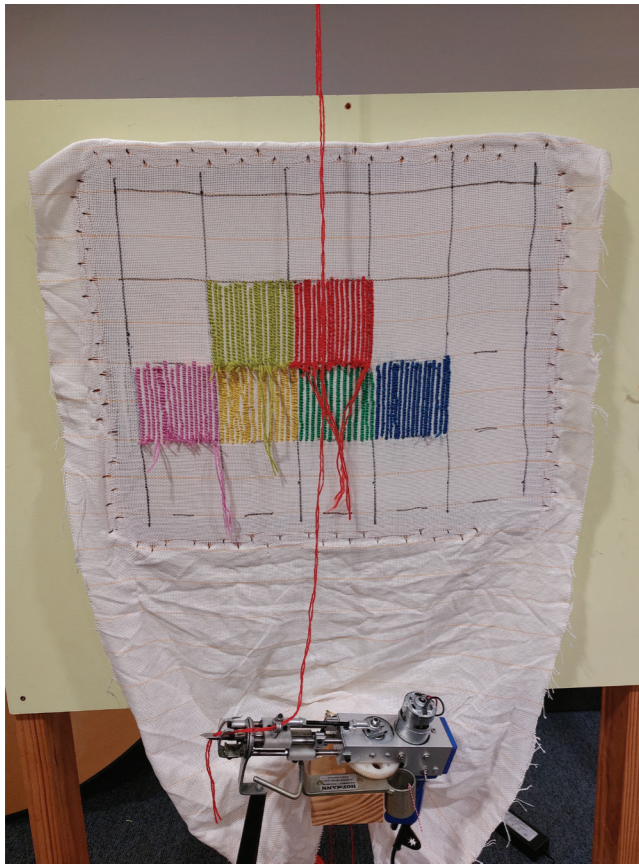


Figure 28. Oswin, Ashley. *Final rug design*. 2022



## Rug tufting process

Above: Learning rug tufting

Left: Playing with plastics under a tufted samples to explore sound

Right: Carving footprints on the tufting frame



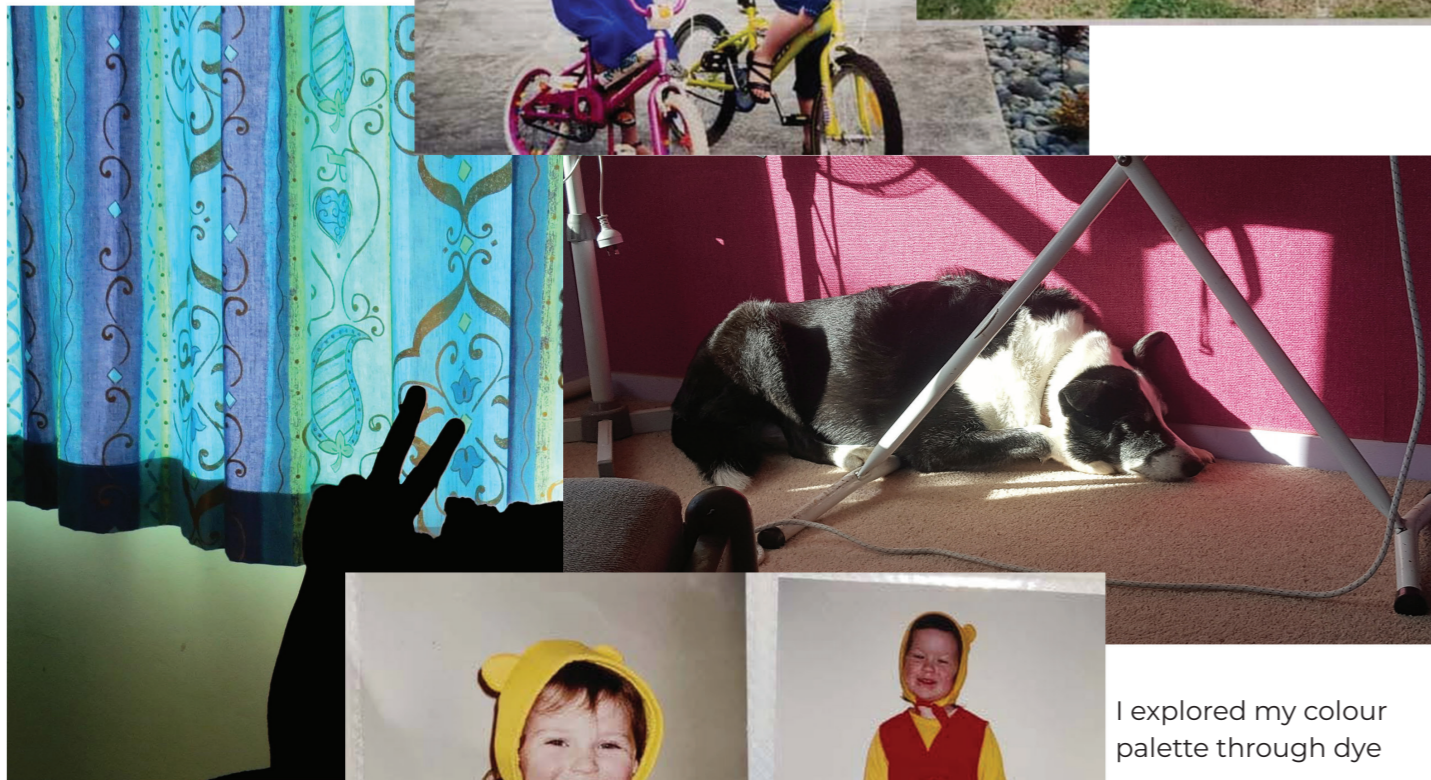
Figure 29. Oswin, Ashley. *Rug tufting process*. 2022



Figure 30. Oswin, Ashley. All rug tufting samples. 2022



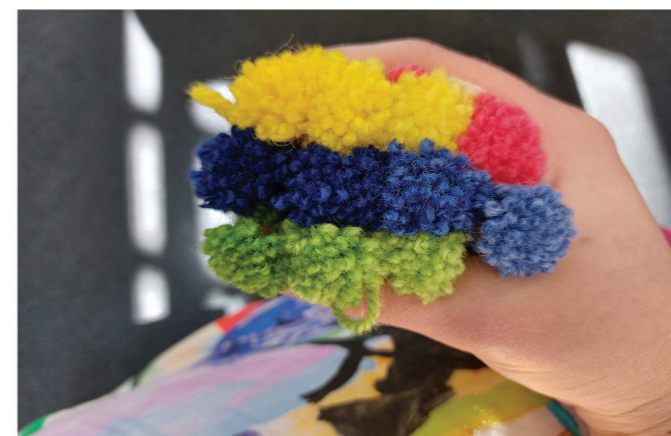
Colour palette development



I explored my colour palette through dye



Figure 31. (Opposite) Oswin, Ashley. *Colour palette development collage*. 2022. Reproduced by permission of all those in the images.  
 Figure 32. Oswin, Ashley. *Photograph of dyed yarns inspired by collage*. 2022.



Left: Exploration of different colour combinations

Above: Exploring gradient and deciding on the final colours

Right: My final colour palette

Figure 33. Oswin, Ashley. *Colour palette development and finalisation*. 2022.





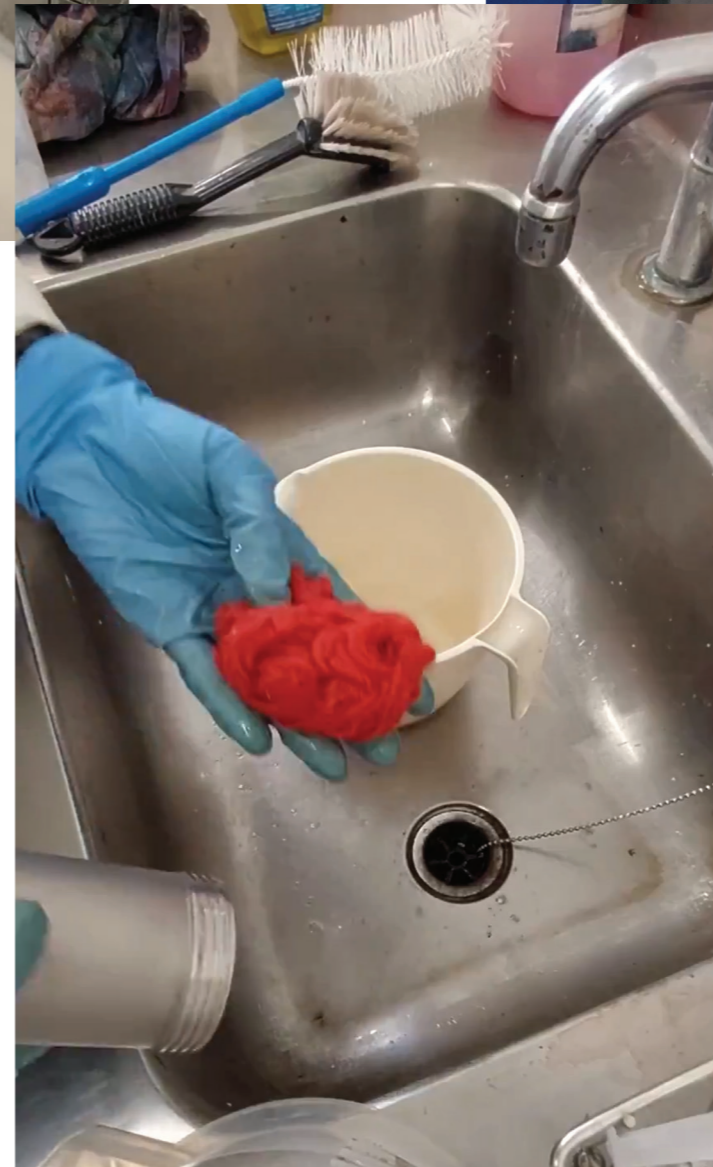
2. Below: scouring the wool to get any chemicals or oils out



3. Left: preparing the dye baths  
- measuring out the dye, water and vinegar into the canisters  
- I used the pyrotech dye machine to do my dye testing, meaning I could do 8 dye baths at once



4. Left: washing out the wool, the dye gets completely absorbed by the wool - only the acidic water should be left at the end



5. Above: the wool drying on the washing line, comparing to paper colour palette explorations.

### The dye process

1. Above: making the yarn into skeins to ensure even dyeing



Figure 35. Oswin, Ashley. *All my dyed yarns*. 2022.



### Large scale dye baths

1. Left: scouring the wool in batches



2. Above: dyeing larger dye baths in the dye winch



3. Left: dyeing smaller dye baths in pots



4. Left: whipping the wool outside to get excess water out of the wool - makes it dry quicker!



5. Left: the wool drying on large racks

6. Above: winding the yarn into 'cakes' which ensure the yarn doesn't get tangled while rug tufting



Figure 36. Oswin, Ashley. *Large scale dye baths*. 2022.



### Final rug tufting process

Transferring the design onto the base cloth, stretched on the frame

Hand tufting the footprints - greater control than machine tufting, good for small areas and curves

Carving the footprints on the frame allows for greater control of what you're carving and allows you to fix any mistakes

Machine tufting the large blue sections, working in long straight lines



The rug, finished on the frame!

Above: the back of the rug

Right: the front of the rug



Right: sealing the rug after shaving the front

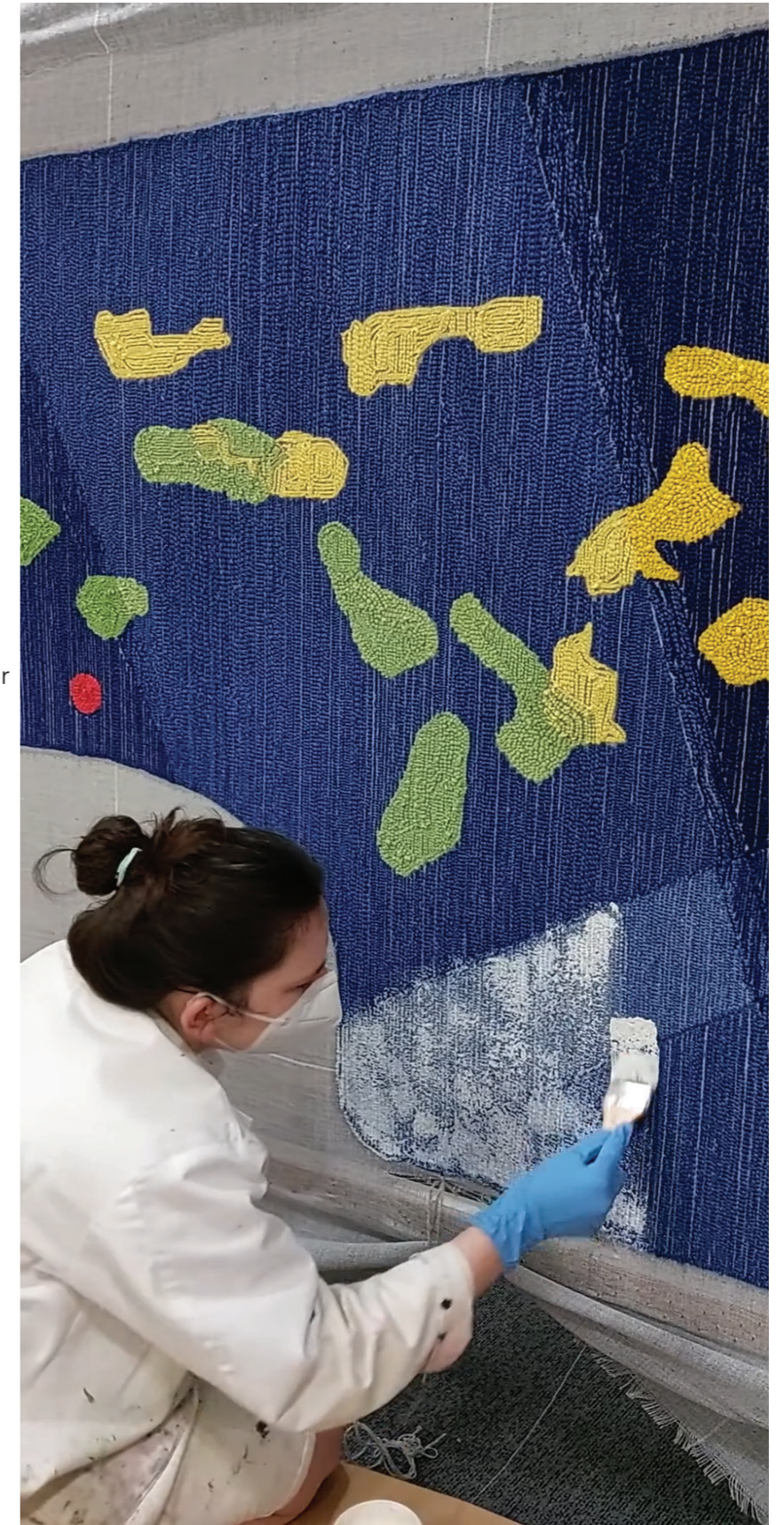


Figure 38. Oswin, Ashley. *The tufted rug*. 2022.

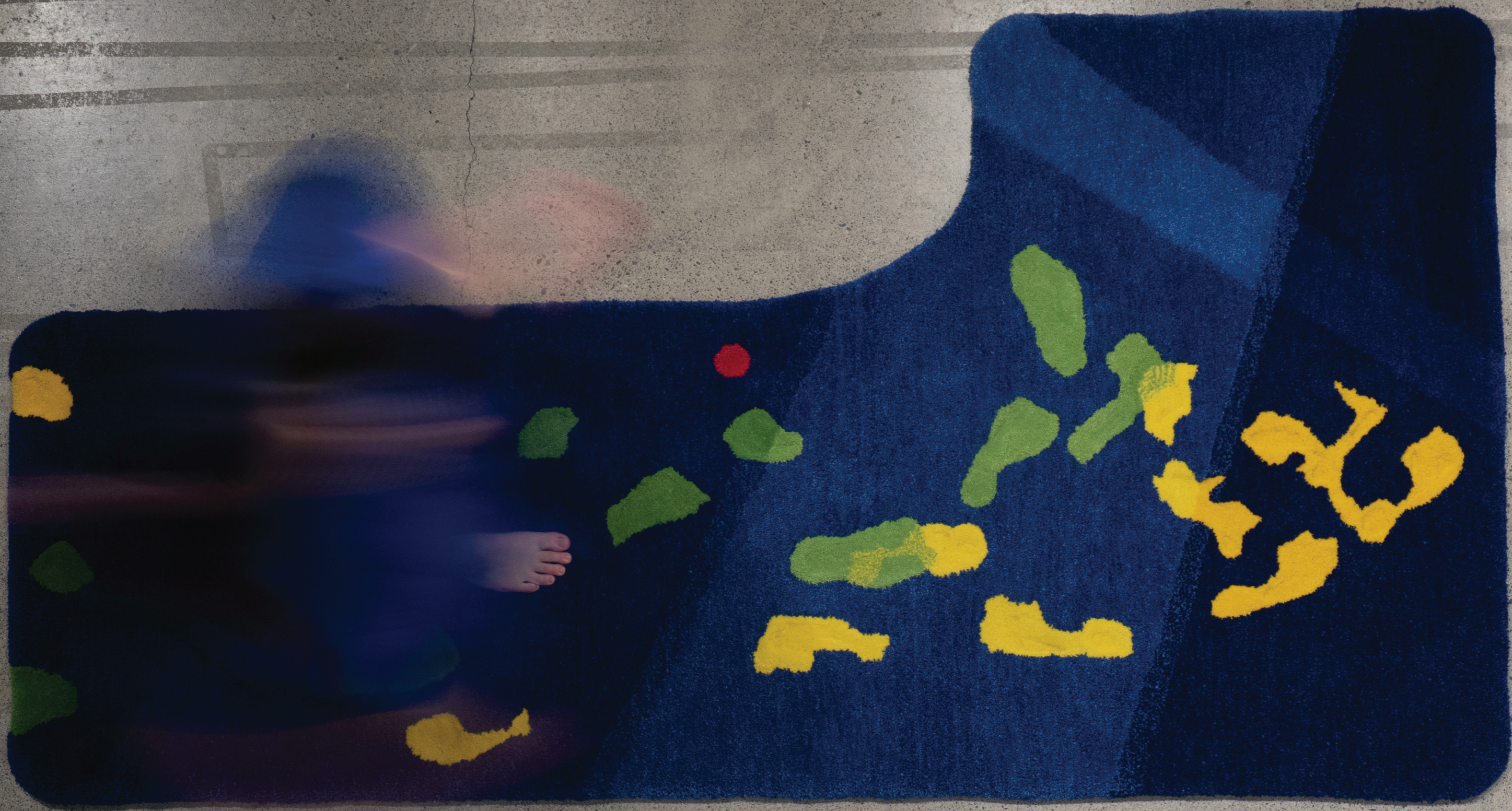


Figure 39. Oswin, Ashley. *Experiencing the rug*. 2022. Photograph by Ryan Greer.



Figure 40. Oswin, Ashley. *The carving*. 2022. Photograph by Ryan Greer.

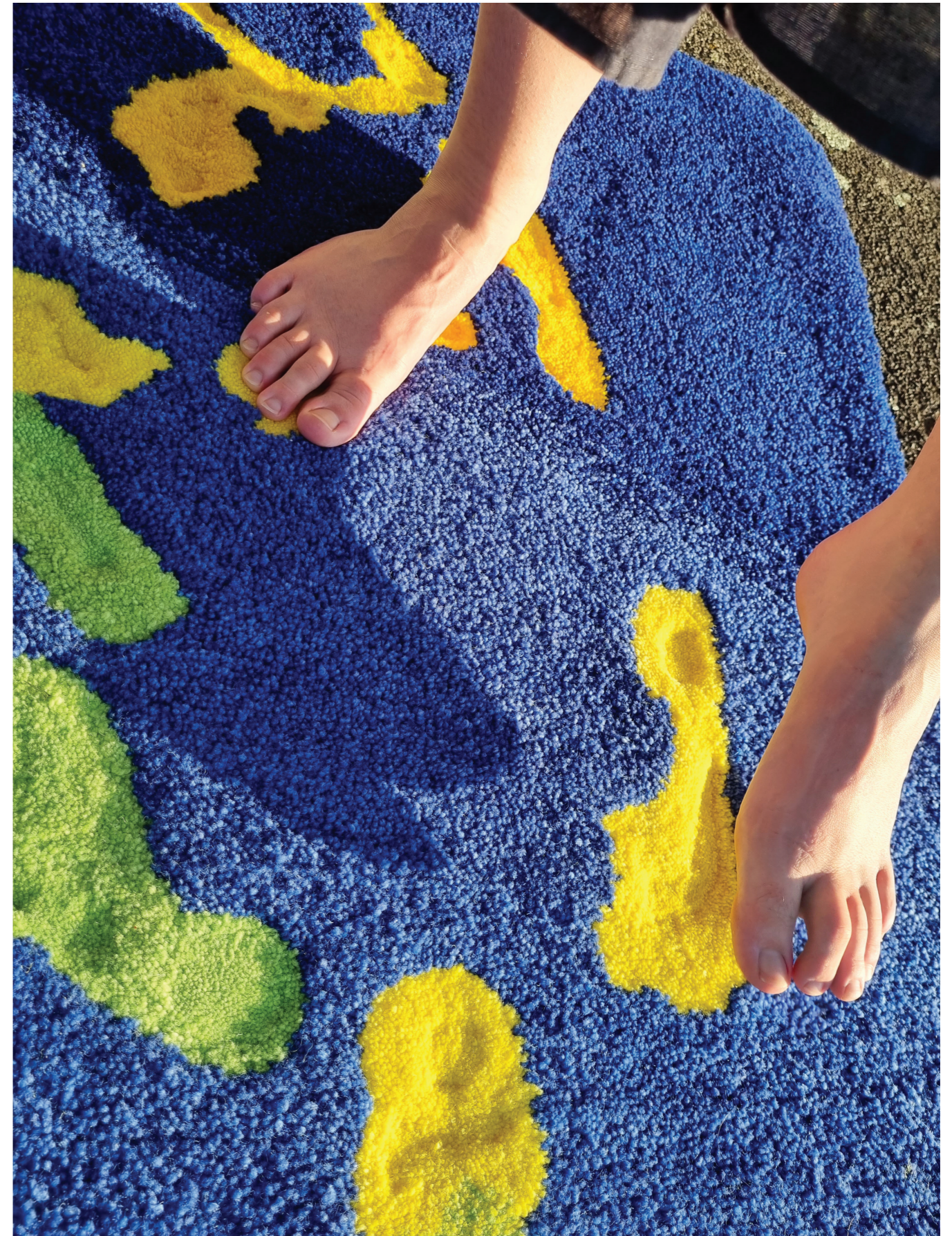


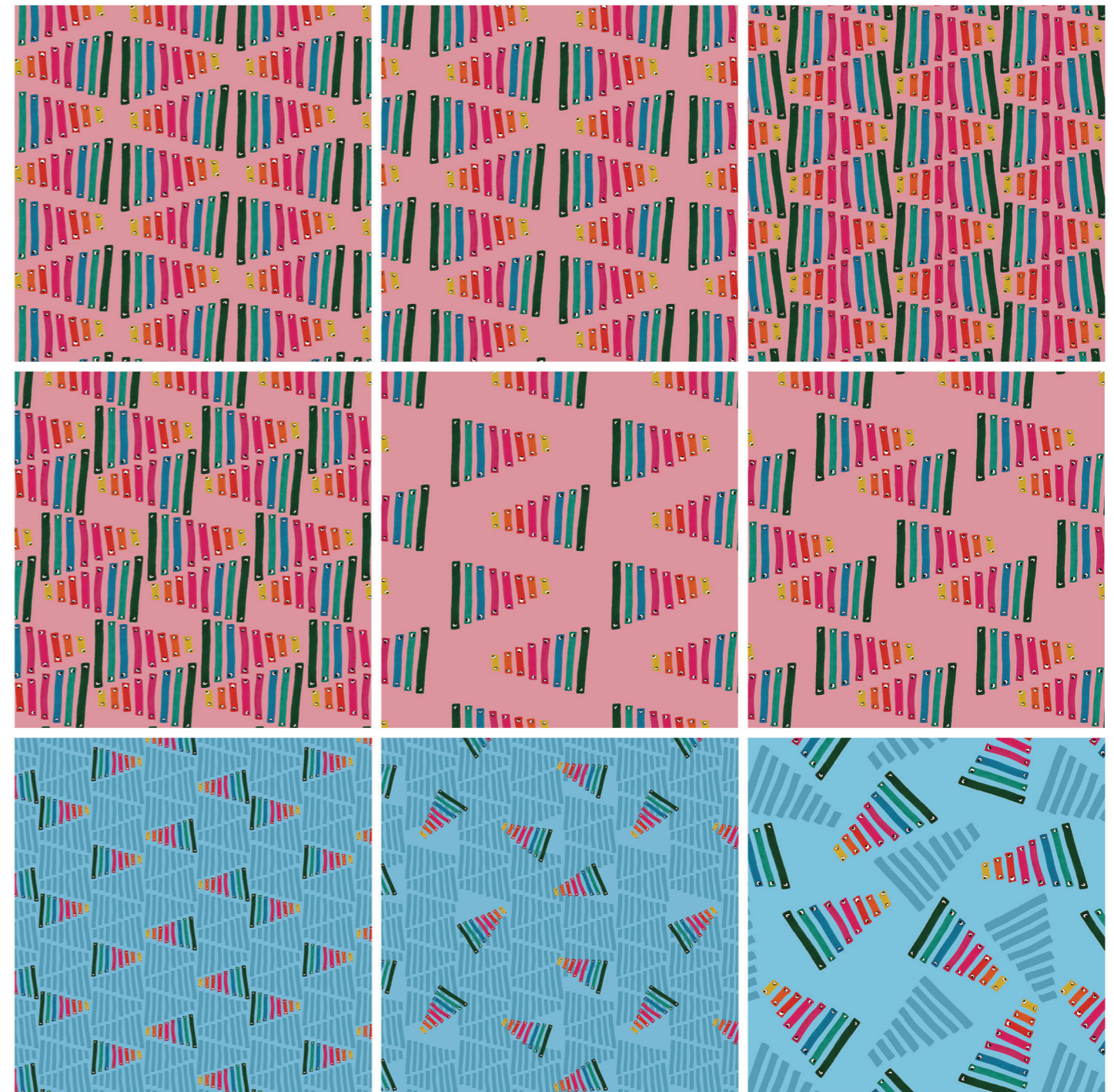
Figure 41. Oswin, Ashley. *Familiar footsteps*. 2022. Photograph by Symone Robson.

## The pyjamas

For the pyjamas, I explored repeat pattern design using illustrative elements related to the game we played. This game was all about the ABC's and animals, but what made it memorable was the xylophone joke, so I knew immediately that had to be the focal point of the print. I subconsciously made the pattern in the style of children's novelty pyjamas, with illustrative elements and bright colours, but this style is perfect to represent the childhood game we played and the application as pyjamas. I drew a simplified xylophone with subtle googly eyes, imaging the xylophone as alive because we would usually be naming animals (fig. 42). I made a few simple repeat patterns out of this and visualised it on pyjamas. I also got my sister to write the alphabet and made an abstracted repeat pattern from this (fig. 43). I dabbled in making animals and the alphabet out of the xylophone pieces as well (fig. 44). Ultimately my sister and I both loved the original xylophone repeat pattern I made the best. Simple as it is, it captures what we loved most about that memory. Whilst I did like a lot of the other design ideas, they didn't represent the in joke we shared.

I then refined the original pattern, trying different colours in the background, recolouring the xylophone to make it more cohesive, exploring adding textures and drop shadows to make the print more interesting (fig. 45). All the while I was sending pictures to my sister to get her input. For the pyjamas my sister requested stretchy pyjama pants and I wanted a nightie (fig. 48). I outsourced the printing of the fabric and the sewing which I wasn't confident doing myself. I got the fabric printed in Australia and got a friend to sew the pyjamas for me, giving her a nightie I wanted copied and a pattern for my sister's pants.

At a critique, I presented an initial xylophone pattern alongside the rug in a very preliminary stage. The story of the rug really resonated with everyone. One guest critic recounted a story of sneaking out of bed in response, which indicates the rug and story are relatable and potentially capable of inducing transferred nostalgia. The xylophone pattern on the other hand didn't have the same response. My sister and I both loved this xylophone pattern, more so than the rug, because it's a fun in joke for us. However this meant the audience didn't find it relatable; it's one of those 'you really had to be there' jokes. This makes it clear that the goals should be different for users engaging in a DIY process and designers creating designs for transferred nostalgia. For designers to utilise transferred nostalgia, they should be sure to make something which would be relatable, which in the case of my rug is the experience of sneaking out of bed or having creaky floorboards. On the other hand, if users implement this process and are designing for themselves, they should focus on making something they love rather than making something relatable.



A B C D E F G H I J  
K L M N O P Q R S  
T U V W X Y Z



a b c d e f g h i  
j k l m n o p  
q r s t u v w x y z

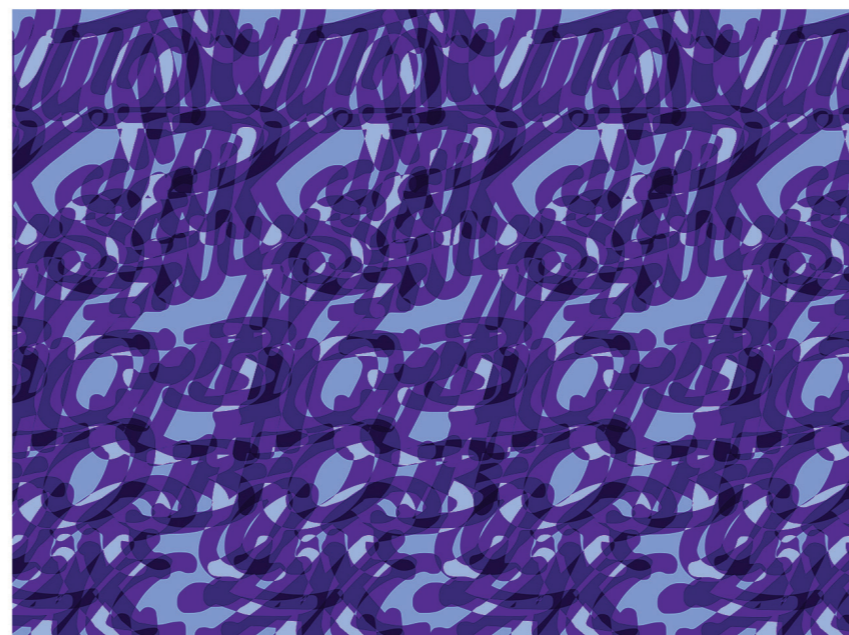
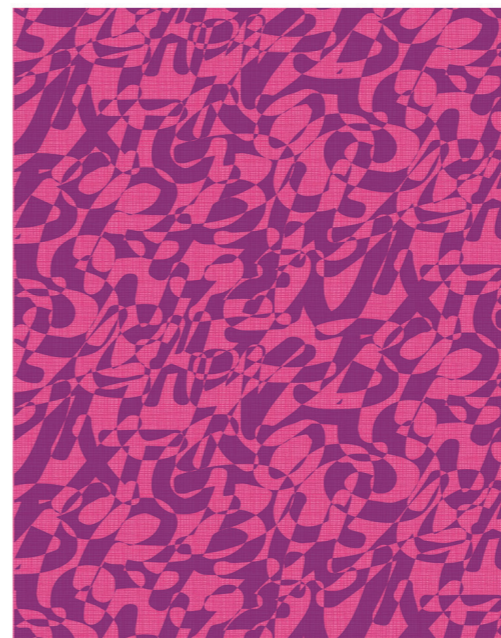
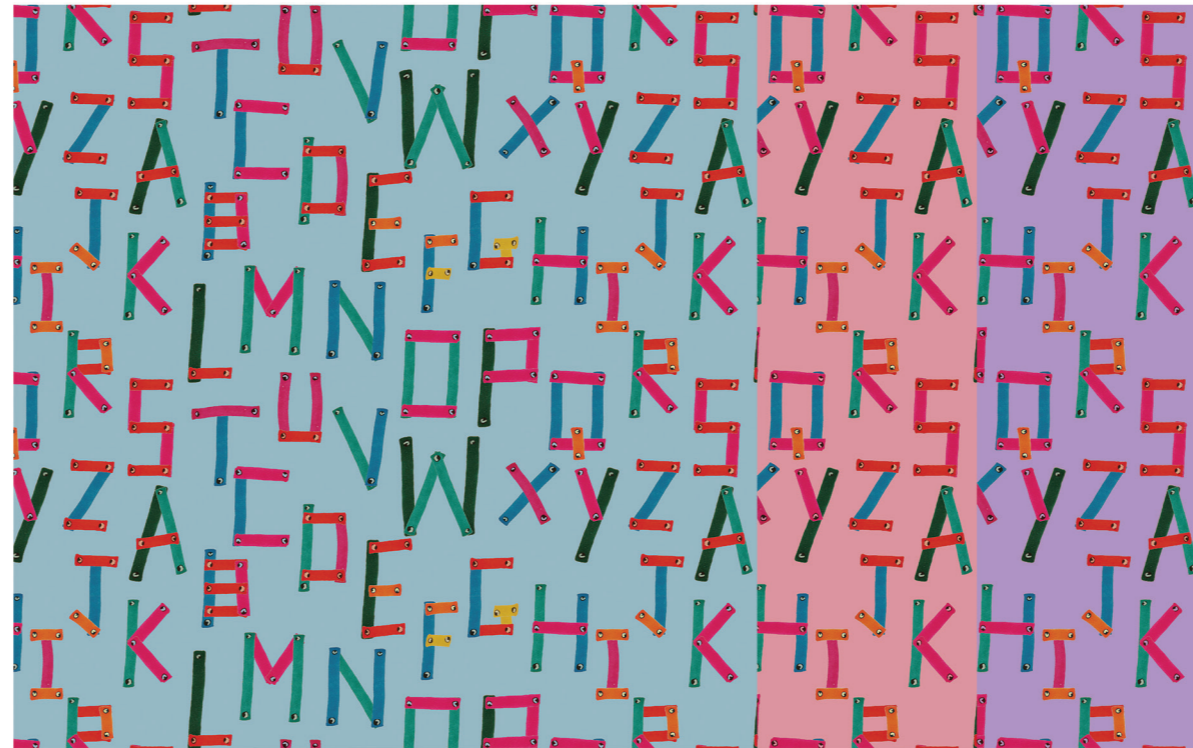
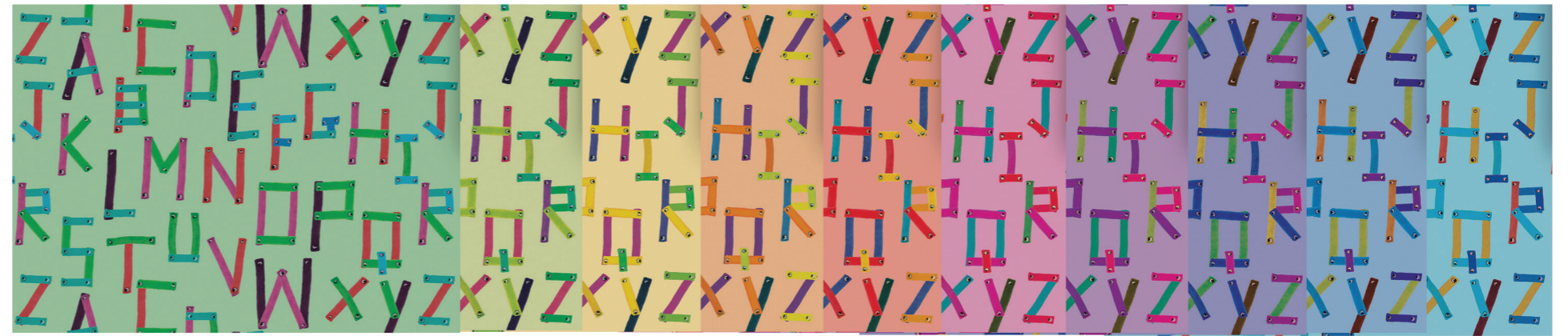


Figure 43. Oswin, Ashley and Oswin, Chelsea. *Pattern exploration using Chelsea's handwritten alphabet*. 2022. Reproduced by permission of Chelsea Oswin.



Left: original ABC's from the xylophone

Rows:

- 1. colourways
- 2. background colour
- 3. left: colourways  
right: tonal/monochromatic



Figure 44. Oswin, Ashley. *Xylophone alphabet pattern variations*. 2022.



Figure 45. Oswin, Ashley. *Xylophone pattern variations and finalisation*. 2022.

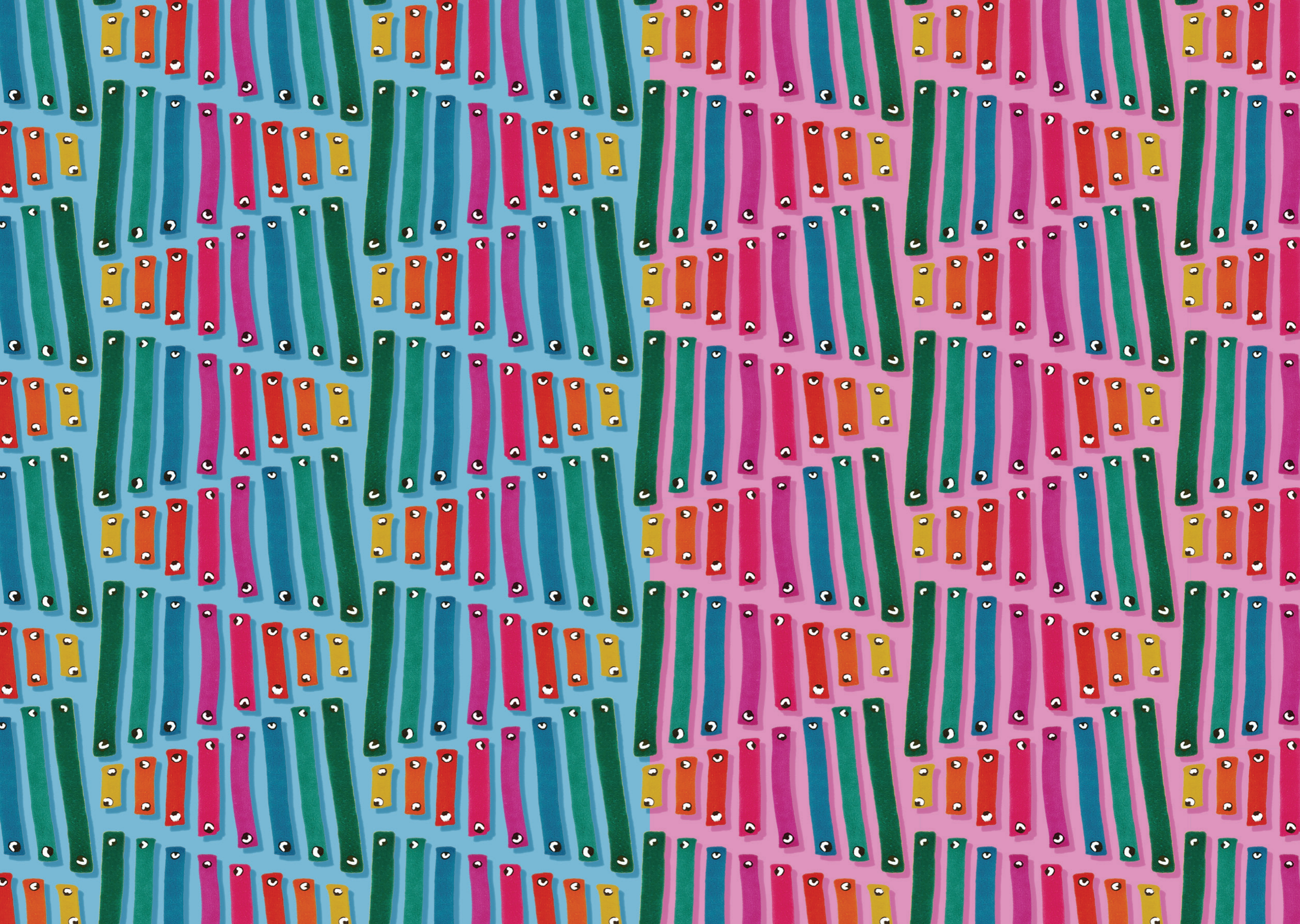
- Columns:
1. tonal/monochromatic
  2. colourways
  3. background colour
  4. background texture
  5. top: drop shadow  
bottom: adjusting colours





Figure 46. (above) Oswin, Ashley. *Xylophone scale testing. 2022.*  
Figure 47. (left) Oswin, Ashley. *Close up of the final garments. 2022.*  
Figure 48. (right) Oswin, Ashley. *The complete garments. 2022.*  
Figure 49. (over page) Oswin, Ashley. *The final patterns. 2022.*





Part five:  
Reflection

## My making experience and emotional attachment

Throughout the making process I have been reflecting on my experience, how I felt, and what has influenced this, from social nostalgia, to learning new skills, to using existing ones and outsourcing making. Research into user involvement indicates that the most important aspects of emotional attachment are that users should have creative autonomy, put in a high level of effort, and the resulting object should meet the user's expectations which can be impacted by skill level. So what has my experience been like in regards to this? And how has nostalgia impacted this?



Figure 50. Greer, Ryan. *Ashley (over it and grumpy) hand tufting*. 2022. Reproduced by permission of Ryan Greer.

Figure 51. Oswin, Ashley. *Rug just off the frame; overjoyed to be done rug tufting*. 2022.

## Skill levels and outsourcing

I chose to make pyjamas and a rug because they required different skills and processes which I have varying levels of experience in and wanted to be able to compare these experiences. For the pyjamas, I created illustrative repeat patterns and outsourced the rest of the making. I am a surface pattern designer and love creating patterns and playing on photoshop so this task was easy and fun for me. My rug tufting experience on the other hand was very limited. Prior to this project I had held and used a tufting gun precisely once. Rug tufting yarns are also in short supply in Aotearoa, so I needed to dye my own yarns. Whilst I have done extensive dye work in the past, the amount of colour mixing and testing in this instance was extensive and pushed my skill level. It usually takes years to master these kinds of skills and I was jumping in the deep end by making a 2.3m square rug as my first project.

Whilst rug tufting is an incredibly satisfying process, it's also a tiring process. You're either holding a heavy gun all day or gripping a small tool, doing the same motion over and over, getting a bit of RSI. The equipment also isn't flawless, the gun regularly unthreads itself or feeds irregularly, making the experience frustrating. There were definitely moments of frustration where I hated the rug and wanted to give up. I found that taking regular breaks was important both for my mental and physical wellbeing, as well as to preserve my fondness of the rug.

Compared to rug tufting, it was an even longer process dyeing my yarns, doing a total of 144 test dye baths and eleven final dye baths, dyeing a grand total of 10kg of wool. This process was very rewarding but at times exhausting and frustrating when errors occurred. The entire process involved a lot of maths, thorough record keeping and a high level of attention and precision. I'm very proud of the dye work I've done and feel I've achieved a lot. Although, I don't feel as though the rug necessarily showcases my process and achievements as much as I would like. As in Holroyd's research, if we overcome challenges when making a product it can result in a sense of achievement. My rug, however, doesn't showcase all the dye work I've done throughout this process and I would love to make another rug using all the leftover colourful yarn which didn't make it into my final rug to really celebrate my achievements and the skills I have gained in this area.

My main takeaway from the experience of making the rug is that users should take their time to upskill, slowly building the difficulty of their projects. My experience was stressful at times because of the time pressure and scale of the project, which often caused me to make ill-thought out decisions or just accept issues which I would have otherwise fixed. Ideally I would have liked to start by making several smaller rugs to build my skill level and have confidence in my abilities before committing so much time and money into a large project. As we know from research into user-makers and the resulting emotional attachment to products, the experience of making is of importance because it can become associated with the resulting product. I would argue that a slower paced designing and making experience would both be more enjoyable and result in a product that is more likely to meet the users expectations.

It's interesting comparing the experience of making a rug and acquiring new skills against the xylophone print I designed. I'm, if I may say so myself, an excellent repeat pattern designer. The process is fun and easy for me because I've already spent years building up my repeat pattern, Photoshop and Illustrator skills. Whilst the xylophone print I went with is a simple full drop repeat, the way it's put together and creates a sense of movement is skilful. The experience of designing it has been great, and the making experience has been easy and stress-free, because I didn't have to do any of it. I got the fabrics printed in Australia on cotton, getting swatches done to ensure it would print well. Whilst I do feel somewhat confident in my sewing abilities, I decided to outsource the sewing of the pyjamas to my best friend who studied fashion and is more skilled than I am. I provided her with a simple nightie I wanted to copy the pattern of and a pattern for the pyjama pants which my sister wanted. By outsourcing the making to an expert, I wasn't stressed or anxious about making an unsatisfactory product, I was just excited to receive it. All this also ensured that the product I received met my expectations.

Outsourcing certainly mitigates the need to upskill and invest a lot of time in the making of the product. Unless users have the necessary skills or have the time, patience and inclination to build their skills I would recommend getting the making outsourced to ensure they are happy with the finished result, which we know is important for emotional attachment.

There are many options for outsourcing. Commissioning local small businesses is particularly valuable as you are able to get very personalised bespoke objects and have an expert who will often support and guide you throughout the designing experience. Supporting local makers also has broader positive impacts such as reducing the environmental footprint of products through reduced transport. Another option is using an online service or platform such as WOVNS, who manufacture custom fabric. Usually weaving mills have large minimum order quantities which makes it unaffordable for small businesses or individuals to get custom woven fabrics. WOVNS collates these small custom orders to make it more affordable and accessible, with similar services available for knitwear, digital printing and more.

Another option are services which make the designing or making process easier. For example Adobe Illustrator has a simple pattern tool which makes repeat patterns easy and accessible for everyone. Additionally, there is software such as CLO, a 3D garment design software which fashion designers use to streamline their patternmaking process. This software has huge potential for individuals who know how to sew and want to be able to make their own patterns and streamline their experience.

## Meeting expectations

Whilst I love the pyjamas, my relationship with the rug has been more tempestuous. Since I started dyeing the yarn for my final rug to writing this sentence, my feelings towards the rug have fluctuated from hatred and disappointment to excitement and joy. I've rewritten this section about four times because the way I feel towards the rug keeps changing. I had a lot of different expectations which seem to fluctuate in importance. For example, I had expectations of great craftsmanship, of a positive experience of designing the rug, making the rug and using the rug. I've been grappling with all the reasons that I feel the way I do, critically examining and reshaping my own expectations. This has oddly enough made me like the rug more, but also made me consider ways to mitigate this kind of experience.

What I've struggled with the most is that the rug doesn't entirely meet my expectations in terms of craftsmanship. I'm very lucky that most of the things that went wrong during the making process of the rug were fixable. However, there are a few things that didn't go to plan and I haven't been able to fix. I accidentally tufted some areas different densities and it's noticeable in the finished rug. Also the footprints in the middle are the perfect size, but too small on the outside. Even though the rug meets 95% of my expectations, I was fixated on these small flaws. Why is this? I invested so much time and effort into this rug, shouldn't I be proud of it? What's more, this rug is meant to have symbolic value beyond just being well crafted, why do a few faults overshadow this?

In short, I was struggling with perfectionism. My expectations were unrealistically high given the short time frame and lack of skill level I had at the beginning. I think this was exacerbated by the fact that I was making with the knowledge that my final output would be marked. I realised I should be proud of what I had achieved rather than focus on the minority of things which had gone wrong. But through all this, I lost sight of what the rug was really meant to do; celebrate and symbolise a memory, and by extension my relationship with my sister.

A conversation with my sister helped me reframe my thinking about the imperfections of the rug, but also the priorities of my expectations. I had been sending pictures to my family throughout the process and my sister loved the rug. I wanted to understand why she loved it while I hated it. She told me it made her feel nostalgic. She assigned meaning to different parts of the rug; the ball represented the importance of our pets in our lives whilst the lightest blue represented the colour of the house. She mentioned the new memories we made together in our wet socks, and how the amount of effort I had put into it made her value it. When I told her the rug wasn't perfect, she said, "Our relationship hasn't been perfect either (we both laughed) and it kinda represents that as well." With this comment, Chelsea assigned value and symbolism to the imperfections which transformed them in my mind. Furthermore, this discussion made me realise that I had prioritised making a perfect rug over my actual project aims. The whole point of this project was to make something imbued with memories and capable of facilitating nostalgic storytelling, which is something the rug and pyjamas have achieved. This made me wonder; how could a making experience which is more social impact this?

## Utilising memories and social nostalgia

The designing experience was nostalgic because my sister was involved in the process, walking in wet socks, reminiscing with me and having a lot of input into the xylophone pattern. My friends within the master's programme were also along for the ride, cooking and eating nostalgic food with me and laughing at me in my wet socks with my phone on the ceiling.

However the making experience itself was less social, with my sister in another city and my friends in the masters programme working on their own projects in different buildings. There were a few fun social moments which stand out in the making process. For example, the efforts my friend Symone and I went to get the excess water out of my wool after I dyed it. We lugged the hanks of wool outside and whipped them around to get the water out and help them dry quicker, getting water everywhere, including on each other. This kind of experience was an anomaly in the making process however. I wish I had been able to go through this process with my sister to create even more shared memories. When I think back to my undergraduate years, what makes them memorable isn't always the work I made, it's the memories of creating with my peers. Amongst all the struggle of learning and upskilling are fond memories of friends. Involving my sister in this process would have made it a shared journey. I'm sure we would have still struggled with upskilling and had fights at times, but there would also be moments of joy and laughter, much like Symone and I had, which would probably outweigh the bad memories and add even more value to the rug. Exploring social nostalgia in the making experience is something I want to investigate in the future.

The rug represents all these memories of the designing and making process; Chelsea and I walking in wet socks to make the footprints; Symone and I spinning the yarn in circles to get all the water out. In this way, the involvement of my sister, family and friends in this experience has added mnemonic value to the object as expected.

## Going forward

In a world rampant with mass production, consumption and disposal of goods, sustainable solutions need to consider the emotional value objects offer to users. By designing based off of cherished memories and involving users in the design process, we can create mnemoactive objects imbued with rich and durable reflective meaning and offer an alternative mode of consumption. The process goes beyond simply designing and making objects, it provides an opportunity to celebrate, strengthen and reconnect with one's past self and relationships.

The journey I have undertaken and the objects I have made can be seen as a case study for this process. Whilst I don't think there is one right way to explore memories or to design and create a mnemoactive object due to the idiosyncratic nature of memory and meaning, going through this process has given me a good understanding of what is important and where to start. The importance of social nostalgia in this process cannot be understated. Storytelling and reminiscing, both with others and through a reflective journaling process, are tools which enabled me to cue, relive and share memories. Exploration of memories through sensory analysis, drawing and writing drew details to the surface, enriching my memory and allowing me to create a design which can transport me back to the memory.

Utilising social nostalgia through reminiscing and storytelling not only works well to cue memories, but facilitates a positive experience. Involving those in the original memory in the design process enriches the experience and the memory beyond all else. Nostalgia often centres around people, so getting others involved, co-designing and making helps forge new memories which in turn become associated with the object. This is especially true with weird experiences like walking in wet socks or whipping wet yarn. My number one recommendation would be to utilise social nostalgia and to make the creative process a social experience. In addition to creating new memories, this design process celebrates and elevates the original memory and the relationships with those involved.

There is considerable scope for further design work and research in this area, both on a professional and a personal level. In terms of engaging with user-makers, I want to explore how I can take on the role of facilitator, working with users to facilitate their designing and making from memories. Highly skilled user-makers could also explore this process on their own. Furthermore, I think a reflective journaling process examining the making experience and resulting attachment to objects might be of value for user-makers, regardless of whether they are designing from memories or not. In a broader design context, I also think the this process might be of value in bespoke design, much like Zak Foster's work.

In my own practise, I want to continue designing and making from my memories, bringing social nostalgia to the forefront of my practise, exploring how designing, and making collaboratively with those I'm close to can further enhance the experience and create new memories. I want to explore personalising objects through this process, creating gifts and shared objects. Meanwhile I plan to continue reflecting on my designing and making process, exploring how my experience impacts my attachment to objects. I feel as though I have gained so much from this project on a personal and professional level. It's given me direction for what I want to do in the future, which is exactly what I wanted out of this masters and I'm excited to continue with this kind of work going forward.

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