

UNIVERSITY OF BORÅS STUDIES IN ARTISTIC RESEARCH NO 42 2023



REDESIGN FOUNDATIONS

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Key words: waste, surplus, redesign, remake, design, method, clothing



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ARTISTIC

REDESIGN FOUNDATIONS

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UNIVERSITY OF BORÅS STUDIES IN ARTISTIC RESEARCH NO 42 2023



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REDESIGN FOUNDATIONS

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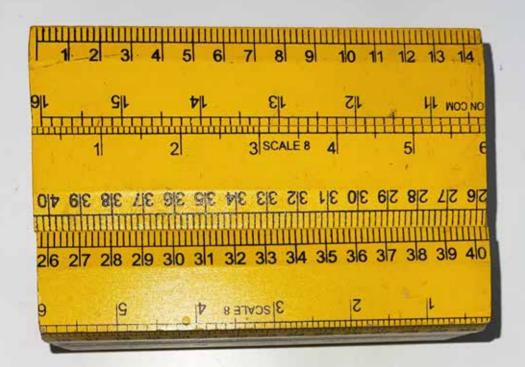
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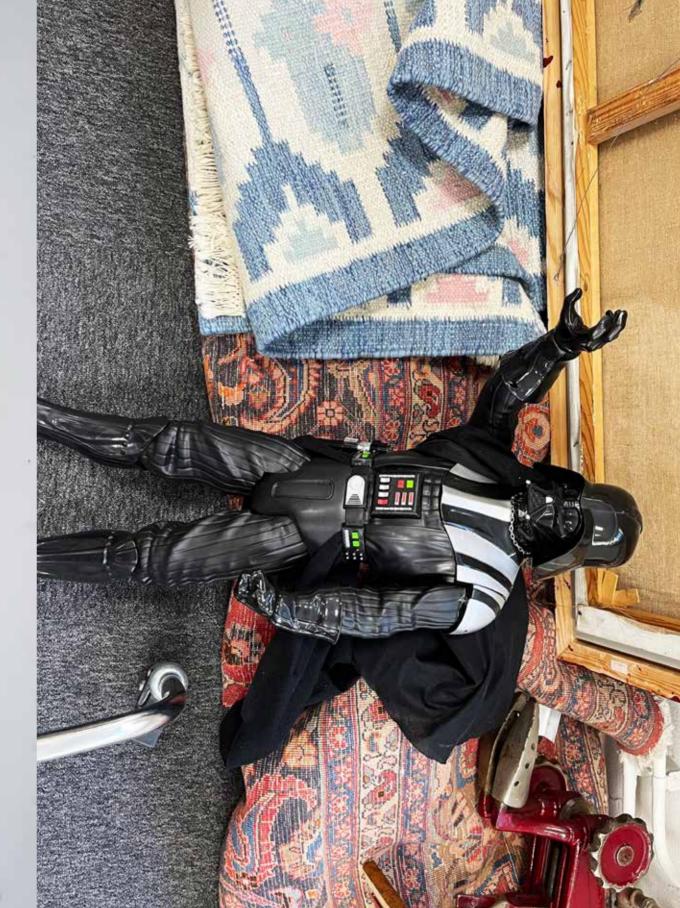
























THIS THESIS EXPLORES CHALLENGES FOR CONVENTIONAL DESIGN METHODS AND DESIGN THINKING IN REDESIGN PROCESSES AND INTRODUCES A CONTRIBUTION TO THE DEVELOPMENT OF THE METHODOLOGICAL FOUNDATIONS OF REDESIGN.

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ABSTRACT

In relation to waste hierarchies, activities such as redesign, reuse, and remanufacturing are often promoted because they can recover more resources than other activities. For example, studies have repeatedly shown that reuse and remanufacturing have more beneficial effects for the environment than recycling on the fibre level. In the clothing and fashion industry there is a growing interest in the design and business possibilities of redesign. However, despite the many examples of redesign practices and research projects being carried out to broaden theoretical understanding, a relatively underexplored area is redesign methodologies and approaches that provide the foundations for redesign as both an artistic field and business model.

This thesis explores challenges for conventional design methods and design thinking in redesign processes and introduces an alternative methodological foundation for redesign. The research was carried out through experimental design research. Design exploration and developments were conducted by design students and the author, who investigated various design methods and redesign processes; the results of these were analysed, as were accounts of and reflections on these, to identify central concepts in design thinking that present challenges and future possibilities with regard to redesign methods.

The results suggest that traditional fashion design processes, methods, and terminology are problematic when designing with *garment as materials*. Existing methods are based on using garment-materials as sketches, in mood-board-type processes, and as templates for creating garments using other, virgin materials. This research proposes novel ways of understanding the expressive properties of raw materials for redesign, on the basis that things that have already been designed are often then not considered further by designers. On the basis of the theoretical findings, examples of alternative design techniques and tools for redesign are discussed, and fashion as a practice is discussed from a redesign perspective.

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CONTENT

1. INTRODUCTION & MUTIVES	32
1.1 OUTLINE	40
2. EXPERIMENT #1, SEARCHING, DESTROYING, FORGETTING	42
2.1 Experimental setup	44
2.2 Results	
2.3 Analyzes	67
2.4 Summary	79
3. GARMENT-MATERIAL	82
3.1 The Scanner (tool)	85
3.2 The Swatch (method)	86
3.3 The Caption (result)	87
4. EXPERIMENT #2, POINT, LINE, GEOGRAPHY	. 128
4.1 Aim	129
4.2 Experimental setup	130
4.3 Results	131
4.4 Design developments	160
4.5 Analyses of results	164
4.6 Conclusions	167
5. EXPERIMENT #3, DESIGNING WITH GARMENT-MATERIAL	172
5.1 Aim	172
5.2 Experimental setup	172
5.3 Results	174
5.4 Reflections.	183
5.5 Design results	188

28 **I**

CONTENT

6. EXPERIMENT #4, REALISATION VS IDEATION	194
6.1 Aim	19
6.2 Experimental setup	19
6.3 Results	198
6.4 Conclusions	20'
7. MAPPING	212
7.1 Cut, Fold, Map	213
7.2 Mapping, Geography, Redesign	22
7.3 Mapping Individual Generic Garments	22
7.4 Combining Generic Garments	22
7.5 Mapping Invdividual, Specific, Non-generic Garments	282
7.6 Combining Generic & Invdividual, Specific, Non-generic Garments	33
7.7 Conclusions & general reflection	404
8. MAPPING MORPHOLOGY	40
8.1 Experimental setup	40'
8.2 Conclusions	428
9. VAMPING	430
10. REFLECTIONS	46
11. BIBLIOGRAPHY	508



1.

INTRODUCTION & MOTIVES

MOTIVES

There are professions more harmful than industrial design, but only a very few...by creating whole new species of permanent garbage to clutter up the landscape, and by choosing materials and processes that pollute the air we breathe, designers have become a dangerous breed...In this age of mass production when everything must be planned and designed, design has become the most powerful tool with which man shapes his tools and environments (and, by extension, society and himself). This demands high social and moral responsibility from the designer (Papanek, 1971:ix).

The interest in circular environmental systems in the fashion industry has grown in recent years (Ertekin and Atik 2014; Lundblad and Davies 2016) and there exist several models and activities for a cyclical economy that focus on different forms of resource recovery and waste hierarchies. (Tischner and Charter 2001; Dobers and Strannegard 2005).

These hierarchies have a shared perspective on changing traditional linear production and waste systems, from 'waste management' to 'resource management' through various actions. Examples of models and waste hierarchies and circular resource systems include Zero Waste Europe, based on the EU Waste Framework Directive (2008/98/EC), and the Ellen MacArthur Foundation's (2013) circular economy model.

The most effective steps for the ideal use of resources according to Zero Waste Europe are:

MOST FAVOURED OPTION



32 ▮

INTRODUCTION AND MOTIVES

Within waste hierarchies, activities such as redesign, reuse, and remanufacturing are often promoted because they are able to recover more resources than other actions. However, several studies have shown that reuse and remanufacturing have more positive environmental effects than recycling on the level of fibres (Roos et al. 2016; Schmidt 2016). According to Roos et al. (2016) the reason for proposing redesign, reuse, and remanufacture over recycling is reduced material utilisation, as this is where the greatest savings in terms of water, chemical, and energy usage can be made.

However, a great deal of effort is put into research with a focus on the recycling of textile fibres through mechanical or chemical means. The downside of such processes is that they tend to use much more energy than processes for producing virgin fibres (Fletcher & Grose 2012). Such methods may offer environmental savings over virgin material production, but high-quality and consistent fibres are difficult to obtain. Recycled material is more often used as insulation and mattress-stuffing – in essence, transformed into material of lower quality, and used in contexts where more refined textile qualities are not required.

Looking at the potential of remanufacturing and reuse as having a more positive environmental effect and more economic value from available resources than recycling at fiber-to-fiber levels, it presents the clothing industry with significant challenges.



INTRODUCTION AND MOTIVES

CHALLANGES

One challenge is to move away from technical, mechanical, and chemical-focused product development and manufacturing with regard to recycling, remanufacturing, and repair and towards innovative design models and processes such as redesigning and rethinking in order to enable more activity higher up in waste hierarchies.

A second challenge is for design models and processes to deal with a much more unpredictable and much more volatile flow of alternative 'raw materials' for redesign instead of the more reliable and controllable material sources for fabrics and yarns by the meter , available in a vast range of functional and expressive variants.(figure x & x below the aim:)

If the perspective changes, from seeing remanufacturing and reuse as primarily technical problems to viewing them as design problems, redesign as an overall concept for remanufacture and reuse makes sense from a design perspective. The clothing and fashion industry could then move towards a circular economy, wherein reuse and remanufacture are regarded as design issues with expressive and functional consequences in terms of uses, needs, and wants.

Up to 80% of a product's environmental impact is determined during the design phase of a product (RSA Great Recovery 2016). Hence, there is a need to design 'better' and keep products in use for a long time. Researchers have also emphasised the need for a new kind of aesthetics that is not linear, capital-intensive, and highly automated (Walker 2007). Fuad-Luke, for example, suggests that there is a need for a 'beautiful strangeness', "a beauty that is not quite familiar, tinged with newness, ambiguity, and intrigue, which appeals to our innate sense of curiosity" (2009:188). In a similar vein, Manzini argues that:

The designer's special role is not only the technological aspect of ecological design – the ability to recycle – but also to imagine new scenarios, with new criteria for a new quality of life which is suitable for the environment acetable to society and attractive to our culture. (Manzini, 1990:9).

Multiple examples of redesign practices and research have been carried out, but a less explored area is the foundation of redesign approaches that can provide the basis for redesign as an artistic field and business area.

AIM

This thesis explores challenges for conventional design methods and design thinking in redesign processes and introduces a contribution to the development of the methodological foundations of redesign.

The research is carried out through experimental design research, in combination with theoretical considerations. Design exploration and developments are conducted by design students and the author by practicing various aspects of design methods in redesign processes. The design results have been analyzed together with accounts and reflections to find central concepts in design thinking that present existing challenges and future possibilities for redesign methods.

The resources used by redesign approaches are whatever existing materials or products are 'at hand', regardless of whether they are used or surplus. The material scope of this thesis is delineated by the term garment-materials. What does this mean? Well, if fabric by the metre is a conventional design material that allows the designer to select colour, texture, weight, print, amount of material, etc., a garment-material is whatever is 'at-hand', and thus has ever-shifting conditions, qualities, and quantities, regardless of whether it is constituted by surplus products or post-consumer waste.

From a redesign perspective when working with garment-materials, the use of conventional design concepts and perspectives may not be possible to meet. For example, seasonal trends, colours, fabrics, silhouettes, etc. They become somewhat irrelevant, as any notion of a specific form or function may not be possible to achieve due to what type of "material to hand" available.

Current fashion-design models lack the flexibility to deal with the restriction of using garment-materials, or to design and produce when working with volatile and unpredictable flows of materials .

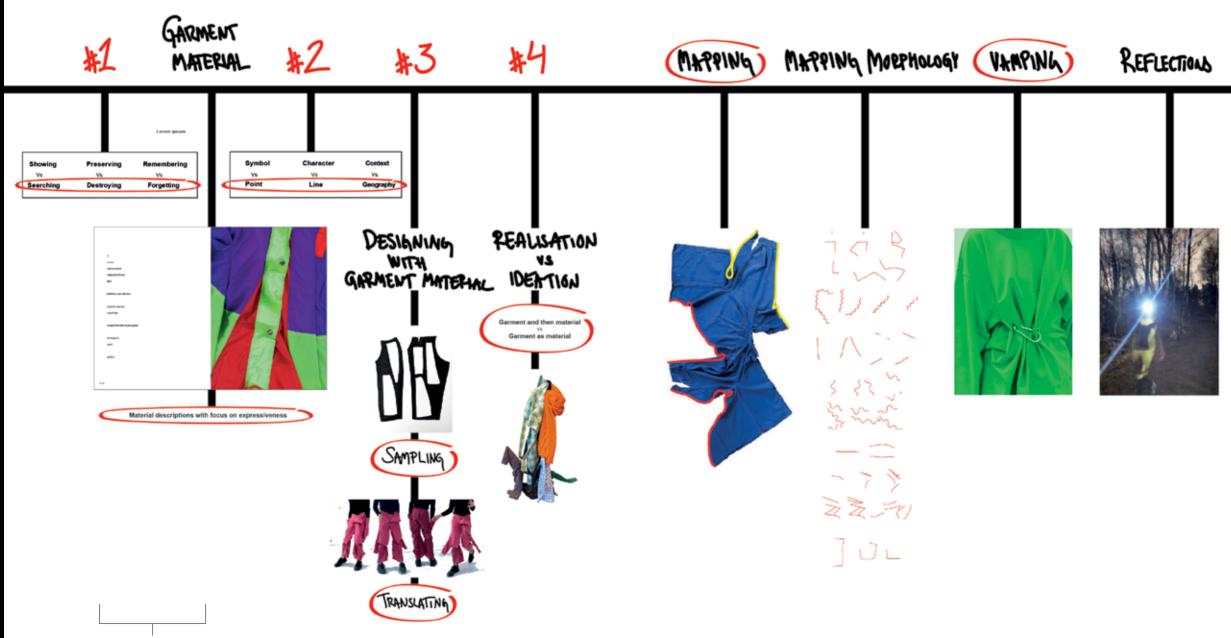
Garments are often thought of to be the end points of design processes, but need to be reconsidered and thought of as creative starting points.

What if the new, novel and freshly designed instead were fashion remnants transformed?

WHAT IS FASHION DESIGN THEN?



Ovine->



#1 and Swatch & Caption was part of my licentiate thesis;
Remake: Design Foundations, 2020

Within the context of remaking and redesigning, the concept of 'garments as materials' is fundamental, but can also be a problem for trained designers.

While holding workshops with designers at various companies and consulting firms within various redesign projects, I found that there seemed to be fundamental difficulties inherent to designing based on an existing garment. The problem occurred during designers' initial explorations regarding what could be designed based on garments or parts of garments. Many of the designers seemed to struggle to even start the design process, before they were able to begin to explore a particular design process. To me, this was an indication that there may be some important issues regarding basic ways of thinking within the fashion and garment design process relating to the ways in which a typical design process is carried out across its various stages.

Based on these experiences, I chose to explore ways of thinking in fashion and clothing design in order to understand the basic problems better and to enact a shift – away from ways of thinking in terms of design, and towards ways of thinking in in terms of redesign.

To accomplish this, I held an initial exploratory workshop that was intended to explore how traditional ways of thinking and working in design can be challenged by the starting point of 'garments as materials' in a redesign project. The idea was to work with students' ways of thinking, acting, and reflecting on how to work with garments as materials in fashion design, and explore how this related to my earlier experiences. The goal for the experimental workshop was to move away from the relatively loosely defined earlier experiences and towards more clearly defined concepts, as well as to seek both shared and differentiating patterns and characteristics through the students' selection, transformation, and design using garment-materials. These concepts were to lead to and inspire additional developments and suggestions for developing redesign methods.

The design-test-projects described were carried out during the Spring of 2019 with first-year Bachelor's-level fashion design students at the Swedish School of Textiles at the University of Borås. The workshop was a part of the course on materials and so related to the topic of garments as materials, and was held to investigate the design students' perspectives on this topic.

The difference between this experimental workshop and previous ones was the desire to explore in greater depth students' opportunities and problems. To do this, each participant presented their work and then answered questions from both myself and the other participants. The questions related to both the garments that they chose as materials and how they approached their materials and dealt with a material that was already a garment. The presentations and discussions were held in Swedish and have been translated so as to be included in this thesis'

2.1 Experimental setup

Piles of garments were provided to the students, and functioned as starting points for their design processes. Each garment fell into one of three categories: waste, obsolete, or dirt. Each student was assigned a pile of clothes, which constituted their design materials. I divided the piles into different types of garment, e.g. upper- and lower-body garments, trousers, skirts, tops, etc. The students were given the following brief:

- Choose materials from the different piles design 3–4 garments based on the materials. Use only the given materials, without additions.
- Photograph all of the selected garment-materials as follows: front and rear against the white wall, with a small margin around it, before doing anything further with them.
- Write approximately three lines explaining why you selected each material. What interested you?
- Photograph your 3–4 garments in the same way on hangers against the wall. Also photograph each garment being worn, front and rear, ? BACK against the wall.
- Choose the best garment and present it on the mannequin for the final seminar.

The students worked with the material for one week. I met some for brief supervision sessions, but not all of them. For the presentation, the students exhibited their favourite design on a mannequin. The answers they gave were recorded and transcribed.

2.2 Results

The discussion that followed each participant's presentation is presented below. Other than the first question, the question and answer sessions were based on follow-up questions connected to the first answer.

STUDENT 1

- What did you do?

I started to pick things with bright colours, which I was drawn to. I noticed that I got almost one item of each colour. And started colour-coordinating them and kind of looking a little at the materials, and then I noticed that they were kind of glossy, and kind of light materials and even really thick, a little more 'real' outerwear material. I was drawn to these. Here are the garments I had. I feel like I only used the blue section, basically, but had really big plans for the others, but it didn't turn out that way.

- Why did you choose to do this?

I worked in a slightly unfocused way, and started kind of over here with the bright colours and felt, well that I progressed maybe a little too fast, and came up with a result and felt – God what is this? So I put it aside. So I have a million projects started over at my workplace that I have not felt that I want to complete.

– You said that you chose the colour first; can you describe how you worked with the material in other ways?

The main idea was for it to be a bit crisp, that it would not be meagre, washed out. But I still tried to get some lustre in the material, verve, like. Yes, for example this material, I liked very much [checkered thick roll-up trousers in blue] this heavy wool, but also with strong colours, but with more mature colours, perhaps. So all I did was drape based on these colour palettes, and quite quickly began to sort of develop this little, kind of sports-puff-sleeve-top, and felt that it could be left to sort of rest, and so I worked in an unfocused fashion.

– You mentioned last Monday, when I checked how you were doing, that you had cut the garments.

Exactly, mmm, well, I needed to kind of play them down from being... because I felt pretty stuck in the identity they had already as garments, so I started sort of removing linings on jackets, looking a bit more at making them stop being garment identities and more materials.

- And then cutting them was a way to decode them?

Exactly, and also to make them not have as much sentimental value. Or cut the respect for the seams a little, in order to be able to be a little more creative with my own seams.

Student 3 – What was this before [pointing to the checked blue wool dress]?

This was made from a pair of trousers, the remains of which lie there. So I basically just cut off the crotch and cut them lower, and then turned them inside out on a mannequin and used pins to narrow them, and then I added this under the tulle skirt that was worn by someone in a photo, a Gina Tricot schoolgirl skirt. Because I wanted to do something a little more fun, kind of.

This one [a garment/top part of a mannequin] is just big scrunchies, I wanted to create big volumes, I did it yesterday, became more rational with it, but it was also fun to create an effect quickly.

Student 3 – Great idea, that allows you to use left-over scraps such as these.

Mm, really. And kind of getting the volume into it was important.

STUDENT 2

- What did you do?

I started with... I wanted something that was quite polished, kind of actually doing something really, really tailor-made, which you might not always have the space to do here. I can miss it a little, just being a little careful. So I started by constructing

this garment, and I focused on taking lots of jeans, lots of shirts, just to use archetypal things, doing something with them. So when I started planning the pattern pieces, I tried to focus on how to sort of cut them a little strategically, so that it would not be so awfully 'patchy' and 'DIY-ish', which was my absolute greatest fear, so I still tried to get them pretty much colour-coordinated, but still keeping kind of the charm of these very, very worn jeans. And to like match with already existing stitches. Working on this a bit. So, this was the first thing I did, and it obviously took quite a while. So, I felt like this – as I was cutting into these jeans anyway, it was quite interesting to see what happened to them as parts of them were removed, so I tried to cut away everything but the seams, the elements that in effect make them into a garment. Here, though, I have still sort of cut out the fabric. I started using this as a fabric, in the opposite sense I mean... and thought a little like, it could be fun to experiment with and fill it with different things, to see what can happen, kind of use it as a styling element, perhaps use it on top.

- It's very exciting to see.

It was a bit sad to cut these jeans, really nice old Levi's denim.

- Why did it feel sad?

Well I do not know, it feels like there is a pretty high value in them, it is something I myself go around looking for in second-hand shops. So I, kind of like – but I want these, but they are just way too big, so it would not have worked out anyway, but yeah.

– Interesting, you also said something [Student 1], to remove the nostalgia, or the respect, the dignity, the soul. You touched on this a little [Student 2] with your Levi's.

Student 6 – In the last presentation, when we were making our own garments, some thought it was a little difficult. But this is not even, we got these, it is not even our clothes, but still it feels respectful... it is very interesting. After all, I have been dumpstering quite a lot, so I have a lot of respect for garbage, to find a treasure in someone else's...

Student 5 – We all buy second-hand, but still they are not our own clothes anyway. We haven't adopted the clothes in this way, yet, or perhaps had time to. There is after all the matter of the respect for it...

STUDENT 3

- What did you do?

Here is my coat, which I created from three pairs of cargo pants and a pair of cargo shorts. I started by draping on myself. I had an idea all along to choose these cargo pants. It was because I liked this type of material. And I like a lot of pockets and details and worn, stiff fabrics, my favourite thing. So I just started to drape on myself to see what could be placed where and so on. Two trousers became sleeves, quite logically. I liked how these pockets formed like a kind of shoulder protector, and then I unpicked two pairs of trousers. I kind of worked with placement on different things. I got, I wanted to use these pockets, which are useful pockets really, but that made for a bad silhouette, because it was wide at the top and narrow at the bottom, so I turned them upside down. And this created nice openings on the side as well. Like putting the zipper at the back so it becomes like an opening on a coat and stuff like that. The fly is on the neck, so you can open it up and get a bigger opening here at the back.

– What were your thoughts regarding the choice of raw versus stitched edges, seams? Did you think about this at all?

It was a bit like that I thought it would feel unnatural to... that when I sewed it all together, I at least wanted to try to preserve as much as possible, like the seams are old and used and wrinkled a little, look worn, so that you match them in a way, so they are still there. If I were to add new seams then I think they would look unnatural because they would be like, not look worn in the same way the other seams do. I have long wanted something I could use, long wanted to design a big, heavy, military-like coat that weighs a lot and moves.

- So you think you will use this yourself too?

Mm, definitely! It is quite comfortable. And then I also made a small bag from a shirt and some sort of weird vest. At first I thought I would make a mask, with these kinds of suspended from it, but it had to be a bag instead, quite fun. And so the trousers, they are just shorts. By then I only had a pair of jeans, and I pulled them on so that I had a layer and took another pair of trousers'."

- Are they fastened together? Is this the stitch?

Yes, it is not the world's most beautiful stitch; I thought about whether they would sit here or here. I love these colours and I was constantly thinking about outfits a bit like this one, matching colours and with the same type of feeling, made of these materials. And here I also styled using an old t-shirt.

– How much did the colours guide the choice of materials? Did they matter as much as the fact that you wanted to have precisely this quality of fabric?

When I arrived, I took all the cargo pants I saw, shorts, and this type of work clothing. So I had four garments that were this colour. So, it had to be them because I wanted to make a jacket when they came together. But I had some that were beige, but these here fit better. I thought all the time – this I did first, this is the way I always put it on, when I started draping. I then worked with the others to see what could work, kind of, and maybe just took this vest and put it on over the jacket and like – how would this fit next to the face? – like that, and took a photo. I tied this one into a bag so it became a real thing. Not just a shirt that has been tied around something, with the same expression.

STUDENT 4

- What did you do?

When I walked around down there, I started by kind of taking everything I liked, that I was drawn to, so I collected lots of stuff, had a huge pile. So afterwards I was like this – I have to kind of try to figure out why I have chosen them?. It felt that one was picked a bit spontaneously, quite quickly as well. So I divided them into three piles, which was like this: okay but this I have chosen for the colour, this I have chosen because of the material, and this I have chosen because of the details. And then I started with that which I thought was most interesting and that I really wanted to work with, and it was lots of old workwear. And they were also really hard to cut into because they were brand new. They still had the price tags on. So when I sat there cutting, it was kind of the worst part of the whole task, because it felt so damn hard to ruin something. But I started cutting out some parts of this one that was kind of a pantsuit, without sleeves, like a vest up here. So I started draping it on myself pretty much and kind of thought this part was pretty much reminiscent of a bag I had when I was a kid like this. . I had a pretend mobile phone bag. I thought they were fun and didn't make many changes aside from cutting this piece off. This is actually an arm hole that now I have jumped

1 49 **1**

into. Then I continued with this material a bit when I had so much. But then I felt that this was no fun anymore so I let that idea go.

- Why wasn't it fun anymore?

I do not know; I felt that I had been staring at something for a very long time and had not moved forward in any way. That's how it felt to me. I finished that one, and had a lot of other interesting materials. So then I went back to my big bag of clothes and I brought out these t-shirts. And I chose them down there, too, because I found five t-shirts in exactly the same size, from exactly the same brand; so I guess it was the same person who had dumped all of them. I really wanted to work with some jersey. So I started to drape on myself and cut the sides open, so they were completely flat. I cut them all the same way except for one of the t-shirts, on which I kept the sleeves, and these are the ones that I sewed on here, so they are still in the t-shirt itself and I have not unpicked their seams. So this one is made of four t-shirts and the sleeves are from the fifth t-shirt.

I wanted to keep it such that one would really see that it was made of t-shirts. So that's why I wanted to use these openings and there were four. I thought it was a bit fun to see a whole pattern piece.

- Have you tested using the different openings/holes?

Yes, I have. The last thing I did was sew on the t-shirt sleeves, and it was kind of then that I felt it was fixed in shape. Otherwise, before you could wear it in any way, kind of, because then you just jumped out through some hole. A little subtraction... And it was nice, too, because I wanted contrast stitches, because I didn't want it to be a big black blob, that you couldn't figure out what it was. Nobody would be able to understand that they are t-shirts.

– Was it important that it be understood that these are t-shirts?

Yes, I liked it, because I wanted it, wanted to somehow show that you can take old stuff and make new things. I didn't just want it to look like a whole new thing, sort of. So I thought it was fun. at least with this one here.

STUDENT 5

- What did you do?

I collected different clothes, a sweater, different materials to work with. I don't think I took much. I just think I tried not to take too much actually. I started by trying to drape with the clothes, but I got a bit stuck on the garments. I could only see a pair of trousers, for example. I cut everything up and then created this, where I started from this cardigan. And so I was looking for what worked, what I thought fit together, I think.

- In what way did you think it fit together?

In terms of colour and quality. Something I felt could work together.

- When you chose this part of the cardigan, what was it that caught your eye?

I think it was the rib, and I thought it was cool that it turned into a different garment than just a cardigan. But I changed the torso, as it was too fixed in its identity as a kind of corset. So this is a shirt also, that continues here, and a skirt and a t-shirt. And then I looked at trousers a bit, as I felt that my thinking was blocked by the mannequin. I tried to make legs using a pair of socks, which had leftover fabric in them. I draped a pair of trousers. It was quite fun to do. I tried to experiment a bit with trousers and what fabrics can do for expression.

- Why did you decide to work with tape?

It started with me not having any more pins, but I also like the expression. Also, it's my kind of aesthetic. So I created a skirt also, but took it apart again. It was just so... I draped on a chair, to create another shape, but when I put it on it didn't speak to me. But it was something here [a drawstring with an eyelet on a rib] that I liked. It was like this one coming from a skirt, I like it when you understand, when it stands out. Finally, I made this, a pair of jeans and a pair of children's trousers. Again it felt better on the mannequin than last time, so I wanted to try again to make a corset.

Student 3: – Those trousers, can they be worn?

Yes, they are very wide at the top, but I have tried them on. So they work.

50 **I**



I came in on Monday and went down there and found a few things; I just took things that felt good, like.

- What was it that felt good about them?

The colours, 'materials' as everyone here calls them. But there was a pile of them that I didn't use later on, many of which were beige, brown, and blue materials that I thought fit well together. Then there were a lot of stripes, and then I thought that might be fun ¬— if you get a lot of the same then maybe there will be something here. So I started with this here shirt which was a regular, fairly long shirt, and began to hold it up against myself in different ways. So I found, for example, this sleeve that slid down a bit and then I started cutting it. So I also found a pair of bathing shorts that fit here at the back. So I worked on, released the sleeve from... somewhere around here there was a collar and some form of yoke here that I cut away and then the button edge was made into this band in the back. Anyway, I made this one pretty quickly, I think. And then I turned to this thick sweater, which was a long cardigan that someone had cut into quite a lot right here, it had stains on the arm, so then I did a new version, a V-neck sweater, quite a basic model, and tested it on an overlock machine. At first I had thought of sewing it as normal, but then it became a little more fun to turn it inside-out. I wanted to keep the wristlets.

– So what is the 'right' side now you initially wanted to have as the 'wrong' side, with the seams facing inwards?

I thought of having it with the plain knitting facing outwards, but partly the surface of the fabric became so uneven when it was turned inside out, and the seams were ugly as well. So then I thought that it will be just as well to have it as an additional detail. Then I kind of made a little wrap top of a t-shirt. As I also just tested the sleeves in a different way, I had this one upside-down to see what it looked like. Here the sleeve goes down, and is cut in different ways to make it stop. You can have it in slightly different ways. Either you can have it here, maybe, or you can take it forward, this way. Or when you have arms you can do this, so it becomes like an open back.

Then, what I actually did – but that was with my own bag – I remade it. The backpack was made by Granit (a store and a brand), but I changed it. The bottoms of these backpacks always break, so I cut it and took the straps and made a shoulder bag out of it.

Student 9 – I think it's nice to see that you have kind of preserved something very simple, that it doesn't have to be much for it to become something, it's somewhat comforting to see, in my opinion. Simple, but so good.

- It is interesting to see the way the stripes work together.

Student 5 – It is interesting to see how a shirt and a pair of bathing trunks can have such similar expressions.

At first, I thought it wouldn't work. This one is pretty soft and this one is stiffer. I think the stripes became very good, that the stripes became thicker. So I went with that idea; this is the crotch, which was placed at the back.

- What were your thoughts regarding raw edges versus stitched ones?

Well, it was good that it fit so well there, the end result might have been better if I had rolled it up, though? But then I had had to do that everywhere else, too.

- Did you really have to do that?

No, perhaps not, it was not a very conscious decision. I cut here and then it fit there. It fit in, kind of.

STUDENT 7

- What did you do?

I had a lot of ideas as soon as I saw the tables. Oh, I have to make something out of a bunch of shirts. So I kind of ran and grabbed a lot of shirts. I figured out pretty soon what I was going to do, kind of.

- How did you come up with that then?

I had plans to do a lot of remaking before, but didn't have the time and also it's so damned expensive with second-hand clothes. And now, like – yes, now I have the opportunity!

I've sort of been thinking about it, and then I saw all the wonderful shirts that were there, all these flannels and I just – yes, now I'll make something. And I'll make garments that I will actually use. Because that is what I kind of think that remake is all about - to infuse new life into something so you won't buy new stuff and consume new stuff, but consume old stuff. I've sewn for myself and done what I think is nice, sort of. I am very pleased with the result. What is sad is that, like, I have done something similar to what Student 2 did with their jacket: I cut so that there were fabric pieces and then cut them so that they could be used to create garments, which leaves a lot of small scraps, kind of. I've not used any pockets or waistbands on the jeans, for example, and all the collars on the shirts are left, like, and I think that is a bit sad. That means there are still some pieces left and they are difficult to use for anything; I really would have liked to use those for something, too. However, I plan to use the sleeves that remain from these shirts for a skirt, perhaps, so there may be some more garments. This is a skirt that I made from four pairs of jeans, and onto which I sewed pockets. And the trousers I am wearing today, of course. Then a lovely summer dress. For this one, I will also sew on a couple of pockets – the chest pockets from this shirt, which will go somewhere.

I have quite a lot of material left, I found lots of other things, for example small blouses that I also – based on their colours – thought could become something. But I didn't have the time. The trousers. The button edge on the leg, resulted in more wastage when I cut out the fabric. But here, only the collar and cuffs were not used. Everything else was used for the trousers.

Student 1 – I think that with second-hand clothes the collar and cuffs often cannot be used due to sweat stains and similar. As these were clean, it is good that you have been able to take out almost everything except what is often not possible to use. That's what I'm thinking, at least.

Student 9 – It is hard with such small pieces, so fiddly, it is like, you have to unstitch – hard to make something useful of.

54 **■**

STUDENT 8

- What did you do?

I wanted to do something with jeans, I thought to myself that when you go to a second-hand shop, there are often a lot of jeans there. So I probably didn't have a plan from the beginning, but then when I came to work on the jeans I was simply unstitching. I wanted to keep the part of it that was a pair of jeans, but move it somewhere else, so I used the legs to create the sleeves. At first, I thought about adding more on the rear, but then I thought it was neat, there was a nice opening, and it became practical. But the arms were very long, like, so then I wanted to get them up; at first I had planned to make a lot of creases, but didn't think the shape was good enough. It became so stable, like, so then I chose to just take a couple of other pairs of jeans; I took the waistband from a pair of white jeans and sewed on a button so that it could be fastened.

- I want to come back to the question about your choice of raw edge versus sewn edge, etc.?

Yes, I do like raw edges on jeans, I like the fringes. And then I took a zipper and sewed it on, so you could close it.

Then I went for these cycling shorts. They were probably the first thing I took, I fell for them right away! I loved the colour and print. I liked the reference to old sportswear. I picked up lots of other prints, but it was this one that I liked the best. So I just wanted to emphasise it, kind of, and do something just as simple, but also something new, so I made it into a tube top instead. I had to change it, as it was too narrow to get all the way around, and to stabilise it I used the lower part of a t-shirt and added a little elastic, because I couldn't use that of the trousers as it was falling apart.

When I was down on Monday I found this sweatshirt, it had a great shape but also big paint stains. I thought it was a great shame that it would be thrown away when it was so nice. So I simply cut off the stained parts. It was so rewarding as there were like panels, so I could remove what I wanted, just a tiny bit left at the rear, but there was still most at the front. I also had a lot of work clothes, but I was not so inspired by them, because I like to wear them myself, as they are; I usually buy them second hand. But then again, I still liked the contrast between this softness and that sterile hardness. Early on I wanted to put in something woven, so it had to be this one, and then I used a pocket to cover the logo.

- Why did you particularly want to use weave?

Because of the contrast, I wanted it to be visible, to make a point of replacing it. And also I didn't like the football logo, so I covered it with the pocket.

Then I also found this skirt that I was attracted to due to the rhinestones, which I thought were lovely. It was like the first thing I started fiddling with, but I thought – no, I don't know what to do with it. So I left it. Between like every garment I returned to it and went – no, I do not dare cut into that, like. Then, when I was working last night, I started cutting it open and was about to do something, some kind of dress maybe, but it did not turn out well, so I thought – oh no, now I have ruined it, damn it! So I sewed on some elastic. Well, then I made a belt like this, and so I tried it on and then just – no, it didn't turn out well, damn, now it's useless. Then this morning when I came here and just pulled it on – yes, it works as a belt. I guess I just picked out the part I liked most. So I have worked a little differently with each garment I would say.

STUDENT 9

- What did you do?

I started by choosing materials. I had chosen a lot of cargo pants, I think that I am like Student 3 in that I'm attracted to heavier materials, preferably jeans, so a lot of weight. But then I thought – okay, I won't start with them anyway, I'll try to stay away from them.

- Why would you try to stay away from them?

Because it is so obviously something that I would have been more than happy to work with, so I thought I would save it for last anyway. So I left it where it was and took this sports jacket and started cutting it because I know the inside of functional clothing is often a lot of fun. I didn't find it in the least difficult to cut up, and was curious to see what was inside it, maybe also because I like the idea of 'inside' and a sense of rawness. At the beginning I tried draping on a mannequin to try to create something that I didn't really know what it was. So I set the clock an gave myself time limits, when I did it later on, because I thought I would see this more as a form of sketching exercise than an attempt to create a finished product.

56 **1** 57

- So, how long did you spend on each garment?

I completed this one in maybe one hour, or maybe less. But I rearranged things like this on a mannequin for quite a long time before I decided that this is I what I'm going with. So then there is an arm there and the back there, because I also wanted to, like, I'll try not to use the back as a back or a sleeve as a sleeve. But then it became a skirt anyway. So I still think it is, I like when it's simple, when just about anyone can do this in an hour if they have a jacket to spare. And maybe encourage people by saying that it doesn't need to have such fine edges – to get away from that a bit. At least for now. I added this zipper; cut it away this morning, then I folded it in and thought that this one, which was a little longer before, would go above here, but then I saw it this morning and thought – never mind, I'll cut away, as it was a bit too messy, sort of. It was a zippered lower edge with a black lining, like.

Then I draped it on myself for a bit while I was making it and made a hood of collars and this part was placed about here somewhere. And this can be worn in a few different ways. And it was quite fun anyway to stand in front of the mirror; it was quite a new experience for me to stand and tie and try it on my head like that. And then there were these Atacac hands from our mannequins that I extended. I think it's quite fun that they are so transparent and open with patterns – take this, we want to see what you do with it.

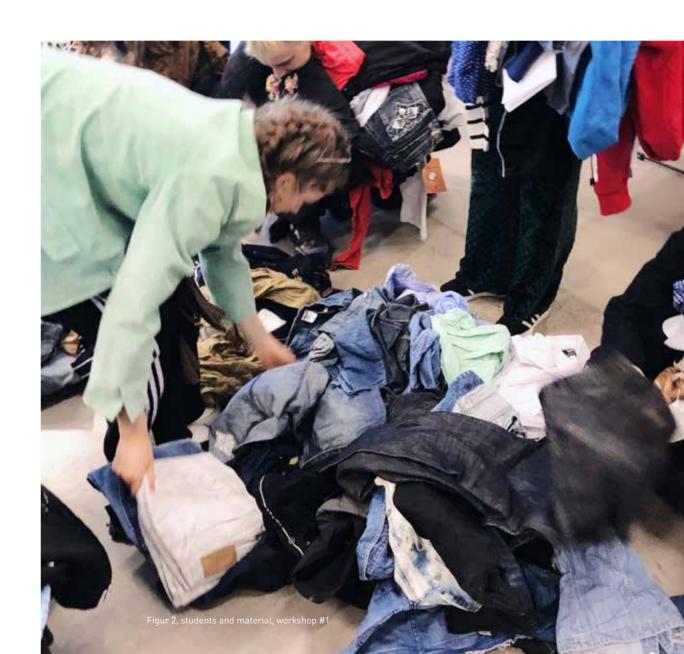
This is the inside, it's like a crab claw. And then there was this, I wanted to try slightly lighter fabrics, a little knitwear, a little jersey. So it's these under-layers and these trousers. I kind of like that it looks thrown together, that someone is pulling out garments which are then thrown at you, so I built on that a little bit, straps that are slipping down, that aren't fastened. I left it open for the arm like this.

I thought it was pretty good to time myself, doing this. I worked from 10 o'clock until lunch, came back the day after and made some changes. So I wasn't super strict, but structured.

Also, I had too much material. Like, I didn't use a tenth of what I had taken, which is probably why I was draping in the beginning – why am I doing this now? After all, ideas may come up in a different way if one is being quick, but perhaps not if one is naïve or something like that.

Student 3 – It's a very nice collection, everything matches very well. Have you tried styling things together?

Well yes, I tried that yesterday, but I don't know, it's stimulus for the eyes...







STUDENT 10

- What did you do?

I did a lot of rummaging around in that pile, and the last thing you said was 'think of this as material', because at the end someone asked about the limitations, if you could add zippers and stuff. And I think I was looking at the pile as if I was walking into a fabric shop. And I'm a bit of a material nerd, so I did a lot of feeling the garments to see whether there was potential in this fabric in terms of quality. So I perhaps subconsciously looked for colour, which resulted in a lot of blue lavender and black.

So that was what much of the pile I took with me was like. The first thing I was attracted to was this purple vest dress, or whatever it is, with a pink lining. I think it's silk, but it doesn't say on the label. Someone sewed it by hand, I think. So it was like this – I really wanted to drape to know more exactly what kind of shape I wanted to achieve before cutting too much, but still wanted to preserve some of it. I was thinking of preserving a pretty nice button edge with hand-sewn hooks. I draped quite a lot, and tried to add yet another fabric to try to find some silhouette. But I guess I got a little scared.

- Why did you get scared?

I don't know, it was as if somehow – if I do this, I'm going to have to cut quite a lot, to make this fit together nicely. But it felt like too much of a risk. I became a coward.

- In what way was it a risk?

Of destroying, perhaps it would look good on a mannequin, but I hadn't tested this in reality. I've made this kind of bust before, and that process often gets hindered by the mannequin. And then when it comes to the body it hangs in a different way than I had imagined. And as we had a time limit, I felt – let's play this one safe, then, and make any kind of draped dress with spaghetti straps. And as this one was hand-sewn as well, it felt like – aaah, I don't want to cut it too much, destroy it. I wanted to preserve the delicate parts of it as much as I could.

So there is plenty of room to change this should I change my mind. I got a lot of ideas from draping and wanted to test further, for example with openings here at the neck and different combinations, perhaps for future projects, and to try to set limitations: to start with simple garments and see the potential in how they can be manipulated and

become other things. Because otherwise, I have problems making decisions so this was a very nice way to work – that I had only this and I got to work on it, full stop.

This one consists of two pairs of workers' trousers in sizes 52 and 54. I felt that I wanted to preserve these pockets and take advantage of the details and place them in a nice way, and maybe do something that is still wearable, maybe do something with a feeling that does not like make one think right away that this is two pairs of trousers, that's the way I think one works symmetrically. I never usually work with symmetrical garments, so it was also like a challenge for me to do something that was more tailored, symmetrical, and with a collar and pockets, and then maybe use the buttons from that dress and then use the rest elsewhere. And that it will be a challenge to do something that does not have that typical deconstructed look. And to try to preserve these seams, do something with these knits and pockets here. These are back pockets really, then I was thinking of trying to take advantage of the waistband, but I guess this is the sad part that there will be quite a lot of waste despite everything, but I still try to see something positive in that it will be a jacket that can be used instead of two pairs of trousers that are too large. So there is less waste.

Then we have this one, a regular cardigan, in a sweatshirt material by Monki. I wanted to make a draped version of it so I turned it upside down to create asymmetry, and tried to wind up some other shapes to create an asymmetrical and slightly more draped cardigan.

Student 3: – Did you use any pattern as a starting point when you made this jacket?

I used the upper part of a jacket pattern, and in order to not cut too much I didn't place it exactly, but so that it would work with my arm. To place these little pockets that are here, but in a different direction, and make use of as much of the material as possible, I just placed this part and the arm hole.

Student 3: – Did you remove the pockets and place them elsewhere?

These are the only ones left. These are back pockets that are placed on the front.

STUDENT 11

- What did you do?

64 **I**

I thought it was very difficult to choose material from that pile – I suffered from decision anxiety, panicked, and didn't know what to look for. I can't see what this is supposed to be, it's all just a pile to me. So I was just looking for colours, kind of. And colours that contrasted with the strong colours I chose, which aren't any of these here, obviously. Then I got stuck in the draping stage for a long time, and just didn't understand what to do, like, because I have a tendency to overcomplicate things. So I tried to come up with a weird task. And then I abandoned that because it was more fun to, in the end, show easy tricks that one can use at home with clothes.

- What was the weird task?

I talked to Student 10 and Student 1 about symmetry, as I never do symmetrical stuff. After that, I had to challenge myself and create only symmetrical things; however, as all garments are symmetrical already, I cut away half of them... I had picked very few garments, as I had such a panic relating to choice. I felt like – it's too big a task and too little stuff, so I skipped it.

And then I thought about what you said, that it's fun to show that one can also just cut off a sleeve and that becomes something. So then I chose this t-shirt, because I was reminded of my stepdad who has this Hard Rock Cafe t-shirt that is so washed out that it has become sort of bluish in colour, but has a layer of white on it too, which I thought was so much fun. So I think this is that kind of t-shirt that one always sees a relative in, and which makes you think like this – oh damn, there's Kim and his bloody t-shirt! Who, if they had a young person or children in their lives, could take and just narrow the sleeves.

I chose to keep this one, which became a huge and strange shoulder, and cut it and sewed it up here. Now, I do not have a picture of it, but I think this one was quite fun to have over a jacket, as it enhances the shoulder.

Then I thought about this one, which can be classy. Like my 'sporty relative' sweater.

It was in such good condition that I wanted to create something with it. And then I thought about almost the same thing – how a young person could go out and do something flashy with it, so instead of throwing it away one could do something like this with it. I found two shirts, it's like a hug. It becomes sort of deformed when you wear it. I did not want to fasten it completely as it kind of drapes here. So it gets like a

bit distorted.

Student 3 – Is there only one layer at the front?

Yes, because it was too damned thick to wear otherwise, there was too much fabric here, underneath – I kind of suffocated. So I've cut away sort of everything below here, so it is in one piece. You can pull it over... You don't have to be afraid to do this at home.

2.3 Analyses

In the analysis of the students' designs, I have looked for categories relating to selecting, handling, and reflecting on the garment-material that related to the ideas of waste, obsolescence, and dirt. The analysis of the students' reflections on their ways of working highlighted interesting dynamics and tensions with regard to the struggle that many of the students showed in following the brief. The findings regarding the approaches of the students to selecting and transforming the garment-material are presented below.

Bold is used to highlight the characteristics and actions that I felt occurred frequently in the discussions. The concepts were also complementary, forming a kind of working relationship that allowed the analysis to illuminate different perspectives on methods and approaches and provide an understanding of the differences as being sliding instead of being categorical. In the analyses presented below, the concepts are presented in connection to the material from which each was drawn.

STUDENT 1

SELECTION OF MATERIALS:

I started to pick things with bright colours, which I was drawn to. I noticed that I got almost one item of each colour. And started colour-coordinating them and kind of looking a little at the materials, and then I noticed that they were kind of glossy, and kind of light materials and even really thick, a little more 'real' outerwear material. I was drawn to these. Here are the garments I had. I feel like I only used the blue section, basically, but had really big plans for the others, but it didn't turn out that way.

[similarity, symmetry]

Note: Variation in fabric quality.

WORKING METHOD & RESULTS:

I felt pretty stuck in the identity they had already as garments, so I started sort of removing linings on jackets, looking a bit more at making them stop being garment identities and more materials [...] and also to make them not have as much sentimental value.

[forgetting]

Note: The cut turned the garment into a material. Removing stitches allowed adding to take place.

Yes, for example this material, I liked very much [checkered thick roll-up trousers in blue] [...] So I basically just cut off the crotch and cut them lower, and then turned them inside out on a mannequin and used pins to narrow them, and then I added this under the tulle skirt [...] Because I wanted to do something a little more fun, kind of.

[remembering, preserving]

Note. The trousers became a skirt. Inside-out.

STUDENT 2

SELECTION OF MATERIALS:

I focused on taking lots of jeans, lots of shirts, just to use archetypal things [...]

[type, symmetry]

WORKING METHOD & RESULTS:

I wanted something that was quite polished, kind of actually doing something really, really tailor-made, [...] just being a little careful. So I started by constructing this

garment, [...] I started planning the pattern pieces, I tried to focus on how to sort of cut them a little strategically, so that it would not be so awfully 'patchy' and 'DIY-ish', which was my absolute greatest fear, so I still tried to get them pretty much colour-coordinated, but still keeping kind of the charm of these very, very worn jeans. And to like match with already existing stitches.

[showing]

Note. Be a little careful, polished. Colour-coordinated.

It was quite interesting to see what happened to them as parts of them were removed, so I tried to cut away everything but the seams, the elements that in effect make them into a garment.

It was a bit sad to cut these jeans, really nice old Levi's denim [...] it feels like there is a pretty high value in them, it is something I myself go around looking for in second-hand shops.

[preserving, destroying]

Note. Ingredients that make a garment, can you fill the gap, the void? The value and respect of the garment. To cut the garments – is it to destroy them?

STUDENT 3

SELECTION OF MATERIALS:

I had an idea all along to choose these cargo pants. It was because I liked this type of material. And I like a lot of pockets and details and worn, stiff fabrics, my favourite thing. [similarities, type]

Note. Several of the same, or similar. Details that pockets generally talk about, ask about the materials and then everything usually means the quality of the fabric itself.

WORKING METHOD & RESULTS:

169 **1**

I liked how these pockets formed like a kind of shoulder protector, and then I unpicked two pairs of trousers. [...] I wanted to use these pockets, which are useful pockets really, but that made for a bad silhouette [...] so I turned them upside down. And this created nice openings on the side as well. [...] The fly is on the neck, so you can open it up and get a bigger opening here at the back.[...] [W]hen I sewed it all together, I at least wanted to try to preserve as much as possible, like the seams are old and used and wrinkled a little, look worn, so that you match them in a way, so they are still there. If I were to add new seams then I think they would look unnatural [...]

And so the trousers, they are just shorts. [...] Yes, it is not the world's most beautiful stitch [...] I love these colours and I was constantly thinking about outfits a bit like this one, matching colours and with the same type of feeling, made of these materials. And here I also styled using an old t-shirt.

[searching, preserving]

Note. Placement of details controls form, to some extent. But when the silhouette became poor, the function had to give way. Blend in, similar colours, similar fabric/material. It's about matching.

STUDENT 4

SELECTION OF MATERIALS:

I started by kind of taking everything I liked, that I was drawn to, [...] So I divided them into three piles, which was like this: okay but this I have chosen for the colour, this I have chosen because of the material, and this I have chosen because of the details.

[type, symmetry]

Note. Materials/garments sorted by colour, material (fabric quality), and details.

WORKING METHOD & RESULTS:

[The garments] they were also really hard to cut into because they were brand new.

They still had the price tags on. So when I sat there cutting, it was kind of the worst part of the whole task, because it felt so damn hard to ruin something. [...] I started draping it on myself pretty much and kind of thought this part was pretty much reminiscent of a bag I had when I was a kid like this. I had a pretend mobile phone bag.

[searching, preserving, remembering]

Note. Hard to cut into them and destroy them, is okay to destroy? Is it possible?

I found five t-shirts in exactly the same size, from exactly the same brand [...] I really wanted to work with some jersey. [...] I cut them all the same way except for one of the t-shirts, on which I kept the sleeves, and these are the ones that I sewed on here [...] [s] o this one is made of four t-shirts and the sleeves are from the fifth t-shirt. [...] [I] wanted to somehow show that you can take old stuff and make new things.

[showing, remembering]

Note. Due to the appearance and shape of the basic garment one garment resembles another. Derivation, association. It is important to be able to see that these were once old t-shirts. Is there a value in being able to show that you can take something old and do something new? How do you see that something is a brand new thing?

STUDENT 5

MATERIAL SELECTION:

I collected different clothes [...] I just think I tried not to take too much actually.

[difference, irregularity]

Note. Not taking too much, what does it mean? She took less than the other students, why did they take more? More opportunities, for free? Too overwhelming?

WORKING METHOD & RESULTS:

I started by trying to drape with the clothes, but I got a bit stuck on the garments. I

70

could only see a pair of trousers, for example. So I cut everything up and then created this one, where I started from this piece of a cardigan. [...] But I changed the torso, as it was too fixed in its identity as a kind of corset. So this is a shirt also, that continues here, and a skirt and a t-shirt.

[destroying, forgetting]

Note. The participant was stuck on the idea of a corset, then the cardigan was positioned in the same way as before, but without its other constituents. What was the impact of the placement? One still saw a waist/corset performed, and believed that the garment was truncated, so to speak.

And then I looked at trousers a bit, as I felt that my thinking was blocked by the mannequin. I tried to make legs using a pair of socks, which had leftover fabric in them. I draped a pair of trousers. It was quite fun to do. [...] But it was something here [a drawstring with an eyelet on a rib] that I liked. It was like this one coming from a skirt, I like it when you understand, when it stands out.

[searching]

Note. As draping is a method that many people use to work with garments as materials, it is difficult to make trousers as mannequins with legs are uncommon. Does this have an impact on the development of that garment category? Understanding where something comes from – understanding, or seeing it. Why is it important? Why does it have a value? Is it linked to potential?

STUDENT 6

MATERIAL SELECTION:

I just took things that felt good, like. [...] The colours, 'materials' as everyone here calls them. But there was a pile of them that I didn't use later on, many of which were beige, brown, and blue materials that I thought fit well together. Then there were a lot of stripes, and then I thought that might be fun ¬– if you get a lot of the same then maybe there will be something here.

[irregularity, similarity]

Note. Much of the same, in this case beige, blue, and brown. Much of the same, but different kinds of stripes.

WORKING METHOD & RESULTS:

I started with this here shirt which was a regular, fairly long shirt, and began to hold it up against myself in different ways. So I found, for example, this sleeve that slid down a bit and then I started cutting it. So I also found a pair of bathing shorts that fit here at the back. So I worked on, released the sleeve from... somewhere around here there was a collar and some form of yoke here that I cut away and then the button edge was made into this band in the back. Anyway, I made this one pretty quickly, I think.

[searching, destroying, forgetting]

Note. Drape on oneself, let the garment shape control wherever one chooses to cut. Work fairly quickly. What does that mean? Maybe it is good not to think too much? Could it be linked to the respect for the garments that so many people talk about? This was exciting as Student 3 said a shirt and a pair of bathing shorts can have such similar expressions. How can one fold garments against each other? What does 'similar to each other' mean? That they swing, work together. That they together build something new, free of the garment's past history, context, or area of use?

And then I turned to this thick sweater, which was a long cardigan that someone had cut into quite a lot right here, it had stains on the arm, so then I did a new version, a V-neck sweater, quite a basic model, and tested it on an overlock machine. At first I had thought of sewing it as normal, but then it became a little more fun to turn it insideout. I wanted to keep the wristlets. [...] I thought of having it with the plain knitting facing outwards, but partly the surface of the fabric became so uneven when it was turned inside out, and the seams were ugly as well. So then I thought that it will be just as well to have it as an additional detail.

[forgetting, destroying]

Note. Holes and stains in the cardigan led her to make a sweater. When the overlock seams were too wavy to have on the inside she chose to turn them inside out, so that it instead became an interesting expression on the outside of the garment. One 'wrong' (the hole

72 **I**

and the stain) became a sweater; another 'wrong' (uneven overlock seams on the inside) became 'right' when turned inside-out. To follow the garment and technology in some way.

STUDENT 7

SELECTION OF MATERIALS:

I had a lot of ideas as soon as I saw the tables. Oh, I have to make something out of a bunch of shirts. So I kind of ran and grabbed a lot of shirts. I figured out pretty soon what I was going to do, kind of. [...] I saw all the wonderful shirts that were there, all these flannels and I just – yes, now I'll make something.

[type, symmetry]

Note. The value of making something that you actually want and intend to wear. What does it mean for the selection of materials, and how can they be chosen to work with fit, cut, and seams?

WORKING METHOD & RESULTS:

I cut so that there were fabric pieces and then cut them so that they could be used to create garments, which leaves a lot of small scraps, kind of. I've not used any pockets or waistbands on the jeans, for example, and all the collars on the shirts are left, like, and I think that is a bit sad. That means there are still some pieces left and they are difficult to use for anything; I really would have liked to use those for something, too. However, I plan to use the sleeves that remain from these shirts for a skirt, perhaps, so there may be some more garments.

The button edge on the leg, resulted in more wastage when I cut out the fabric. But here, only the collar and cuffs were not used. Everything else was used for the trousers.

[preserving, forgetting]

Note. Is it a problem that it is not possible to use all the material? Why can't this be done? Does everything have to be used? Student 1 worked in the same way as Student 8, who cut out parts from the garments, i.e. the fabric between the seams, and made new garments.

To 'get rid of pieces' of fabric and utilise finished parts, such as pockets, and reposition them in another place on the same shirt, or on another shirt. There was more waste in placing the button edge on the trousers, but the shape of the trousers became more interesting as a result of that decision. What does that mean?

STUDENT 8

SELECTION OF MATERIALS:

I wanted to do something with jeans, I thought to myself that when you go to a second-hand shop, there are often a lot of jeans there. [...] Then I went for these cycling shorts. They were probably the first thing I took, I fell for them right away! I loved the colour and print. I liked the reference to old sportswear.

[type, difference]

WORKING METHOD & RESULTS:

I wanted to keep the part of it that was a pair of jeans, but move it somewhere else, so I used the legs to create the sleeves. At first, I thought about adding more on the rear, but then I thought it was neat, there was a nice opening, and it became practical. But the arms were very long, like, so then I wanted to get them up; at first I had planned to make a lot of creases, but didn't think the shape was good enough.

[showing]

Note. This made it clear that the garment used to be jeans, or any other garment for that matter. Why is it interesting? Again, is it for display – watching this can even turn into this? Or is it simple? Perhaps it is quite obvious that that a trouser leg can easily be made into a pair of sleeves, as the shapes are similar to each other. There is something crazy about the whole thing that influences the work as a whole. However, this kind of storytelling is not always very exciting, in my opinion.

I found this sweatshirt, it had a great shape but also big paint stains. I thought it was a great shame that it would be thrown away when it was so nice. So I simply cut off the stained parts.

74

Because of the contrast, I wanted it to be visible, to make a point of replacing it. And also I didn't like the football logo, so I covered it with the pocket.

[forgetting, destroying]

Note. Lacks the courage to cut – is this fear related to destroying something that is already good, an unnecessary act? To cut away stains, to cover a logo with a pocket. Two issues in the original material that governed the redesign process. Cover the logo, cut away the stains, and replace it with woven fabric from another garment.

STUDENT 9

SELECTION OF MATERIALS:

I had chosen a lot of cargo pants [...] [b]ut then I thought – okay, I won't start with them anyway, I'll try to stay away from them.

[type, similarity]

WORKING METHOD & RESULTS:

I took this sports jacket and started cutting it because I know the inside of functional clothing is often a lot of fun. I didn't find it in the least difficult to cut up, and was curious to see what was inside it, maybe also because I like the idea of 'inside' and a sense of rawness. At the beginning I tried draping on a mannequin to try to create something that I didn't really know what it was. So I timed myself when I did it later

I completed this one in maybe one hour, or maybe less. [...] So then there is an arm there and the back there, because I also wanted to, like, I'll try not to use the back as a back or a sleeve as a sleeve. But then it became a skirt anyway.

[showing, searching, destroying]

Note. Unlike some of the other students, this student wanted people to feel that they can do this for themselves: Those who like the DIY look, those who do everything to get away from it. On the other hand, you can have, for example, a raw edge and the choice of just

having this raw edge can be extremely conscious, not a mere coincidence, or the lack of precise sewing skills... it is an interesting balance. Spontaneous versus controlled. Caring or uncaring.

STUDENT 10

SELECTION OF MATERIALS:

And I think I was looking at the pile as if I was walking into a fabric shop. And I'm a bit of a material nerd, so I did a lot of feeling the garments to see whether there was potential in this fabric in terms of quality.

[similarity, abstraction]

Note. Found and chose garments based on fabric quality and colour.

I really wanted to drape to know more exactly what kind of shape I wanted to achieve before cutting too much, but still wanted to preserve some of it. [...] I draped quite a lot, and tried to add yet another fabric to try to find some silhouette. But I guess I got a little scared.

I've made this kind of bust before, and that process often gets hindered by the mannequin. And then when it comes to the body it hangs in a different way than I had imagined. [...] [A]aah, I don't want to cut it too much, destroy it.

[preserving]

Note. The value of hand sewing, another factor in not daring to cut into the material, just as other students had anxiety about cutting into brand new, unused garments.

I got a lot of ideas from draping and wanted to test further, [...] to start with simple garments and see the potential in how they can be manipulated and become other things.

I never usually work with symmetrical garments, so it was also like a challenge for me to do something that was more tailored, symmetrical, and with a collar and pockets,

76

and then maybe use the buttons from that dress and then use the rest elsewhere. And that it will be a challenge to do something that does not have that typical deconstructed look.

[searching, showing]

Note. Working symmetrically, for the garment not to have that deconstructed look. Are deconstructed garments automatically asymmetrical? They tend to be, but does remaking work in a different way here? If it is asymmetrical, is it reversed, and if symmetrical, is it 'new'? The jacket was both sharp and convincing. The designer is in charge of the material.

STUDENT 11

SELECTION OF MATERIALS:

I thought it was very difficult to choose material from that pile – I suffered from decision anxiety, panicked, and didn't know what to look for. I can't see what this is supposed to be, it's all just a pile to me. So I was just looking for colours, kind of. And colours that contrasted with the strong colours I chose, which aren't any of these here, obviously.

[similarly, symmetry]

Note. Panic – this is just a pile to me! I don't know what it is; indeed, what is it? Is it good to see a pile instead of a roll of fabric? Or a pile instead of a pair of jeans?

WORKING METHOD & RESULTS:

I never do symmetrical stuff. After that, I had to challenge myself and create only symmetrical things; however, as all garments are symmetrical already, I cut away half of them...

[showing]

Note. Back to symmetry – the student couldn't challenge it in any other way than cutting

away half of the garments. But did they really have to change anything?

So then I chose this t-shirt, because I was reminded of my stepdad who has this Hard Rock Cafe t-shirt that is so washed out that it has become sort of bluish in colour, but has a layer of white on it too, which I thought was so much fun. So I think this is that kind of t-shirt that one always sees a relative in, and which makes you think like this – oh damn, there's Kim and his bloody t-shirt! Who, if they had a young person or children in their lives, could take and just narrow the sleeves.

And then I thought about almost the same thing – how a young person could go out and do something flashy with it, so instead of throwing it away one could do something like this with it. I found two shirts, it's like a hug.

[remembering]

Note. Think of garments in terms of personalities. Many of the students talked about the garments-materials they chose in terms of personalities. How does this affect the design process? To find a direction? A rich lady with large shoulder pads. The Dressman guy who wants to look younger than he is, the hipster guy who thinks he is brave and alternative but in fact is scared of everything and everyone.

2.4 Summary

The participants' approaches to selecting materials can be divided into two categories: on the one hand type/character, symmetry, and similarities, and on the other difference, irregularity, and abstraction (Table. A).

78 **■**

Similarity	Symmetry	Туре	
Vs	Vs	Vs	
Difference	Irregularity	Abstraction	
Dinerence	megulanty	Abstraction	

Table A. Approaches to selecting/sorting the material

It should be noted that most of the participants used the former set of categories. With regard to methods of designing, there appeared to be an interesting struggle between showing, remembering, and preserving on the one hand and searching, forgetting, and destroying on the other (Table. B).

Showing	Preserving	Remembering
Vs	Vs	Vs
Searching	Destroying	Forgetting

Table B. Approaches to redesigning/remaking the material

For the students, type, symmetry, and similarity appeared to be strong challenges to rethinking and reconnecting the making and creating of new connections and designs. The participants appeared to generally think and act with regard to 'remembering', to base connections on their memories, and to be influenced in their design efforts by what the garments (the materials) were previously. They also seem to have had a tendency to want to show something already preconceived. There was also a significant fear of destroying, shown by the efforts to preserve but still change the material (Table. C).

With regard to redesign methods and business models, it is crucial to design using garment-material based on difference, irregularity, and abstraction, as a given garment is used to create a new garment. As is discussed in Chapter 1, this relates to the fact that different raw materials (i.e. garment-materials) are available at different times. This may present a volatile material condition, be varied, and impossible to control in a manner analogous to ordering fabrics or yarn in a linear design structure

It should be noted that most of the participants used the former set of categories. With regard to methods of designing, there appeared to be an interesting struggle between showing, remembering, and preserving on the one hand and searching, forgetting, and destroying on the other (Table. B).

Similarly, searching, destroying, and forgetting are important elements in redesign methods and business models. As is discussed in Chapter 1, the starting point for redesign methods is whatever material or product module is 'to hand', whether it be used, surplus, etc., and it is here that preconceived expressions or functions may not be possible to realise. Presenting or realising an idea or a concept (showing) in a traditional sense is therefore problematic, and exploring what one can find in the garment-material becomes instead a central way of working. When designing based on typologies of existing garment categories, the formal codes of garment details,

Based on this discussion, what techniques and methods can be developed and utilised in relation to difference, irregularity, and abstraction in approaching garment-materials? What possible techniques and methods for searching, destroying, and forgetting can be used?

Name	Selection	Method
Student 1	similarity, symmetry	forgetting, remembering, preserving
Student 2	type, symmetry	showing, preserving, destroying
Student 3	similarity, type	searching, preserving
Student 4	type, symmetry	preserving, showing, remembering
Student 5	difference, irregularity	destroying, forgetting, searching
Student 6	irregularity, similarity	searching, forgetting, destroying,
Student 7	type, symmetry	preserving, forgetting
Student 8	type, difference	showing, forgetting, destroying
Student 9	type, similarity	showing, searching, destroying
Student 10	similarity, abstraction	preserving, searching, showing
Student 11	similarity, symmetry	showing, remembering

Table C. An overview of the ways in which the participants were perceived to act and think in relating to designing.

80 **■**

3.GARMENT MATERIAL

I try to simplify reduce in order to enrich

disrupt my own assumptions

What is a garment? What is a material?

escape all

in the loss of the whole

new things to be

found

82 **I**



3.1 The Scanner (Tool)

The scanner is a tool used to examine a garment as material, for its unspoken qualities. Through abstracting, searching, and forgetting it helps uncover the potential and possibility in each garment-material. The scanner reveals garments in different styles, of contrasting quality or condition, framed and looked upon simply as lost until they are found. Sometimes the discovery is about finding the richness in what looks like a barren wasteland, to decipher the particularities of the bland.

The scanner displays an inventory of garments as material and brings about an analysis of the expressive properties of some as well as the emptiness of others. Scanning makes known the design qualities of selected materials, things out of matter and matter out of place. Three perspectives on conditions are waste, obsolescent, and dirt, all traveling with preconceived negative qualities. Waste is often considered to be lacking in purpose and regarded as pointless and useless, excess and surplus. Unfruitful or uncultivated land and ugly, devastated, barely habitable spaces are also considered waste. Obsolescent describes a style or mode, a print or color, not in use any more, something that is unfashionable or dysfunctional after a certain period of time. Dirt is something that is discolored, stained, or changed so much that it interferes with its intention and design.

This tool aims to reverse this negative thinking and change these derogatory perceptions of waste, obsolete, and dirt by helping designers instead see the expressive and functional design potential in these categories of garment-materials.

The scanner works because it eliminates the senseless thinking about how to put the material together into something. The scanner allows one to search for other qualities that in turn generate ideas for construction and formation. When I put the material in the scanner for example I may have a notion of what I will see, but the scanned result always surprises me. It helps me to think beyond my initial idea and entertain new concepts. It takes away part of the authorship rather than just alter it. The scanner appears to block my intellect. At first I am trapped in my own assumptions, but the scanner helps me move beyond what I already know or want to show.

The scanner also reminds me that a hoodie is sometimes more than just a hoodie. The framing in the scanner makes it particular through subtle details, and this act of actually looking at the details uncovers alternate possibilities for the hoodie. Even if

GARMENT-MATERIAL

one refers to two different garments as similar or of the same type, they become different in the scanner, and the difference triggers a variety of design initiatives and ideas. By zooming in you prove that there is richness in the featureless; by zooming out you find featureless in the richness.

3.2 The Swatches (Method)

Scanning produces images. These images or swatches, are the result or product of this tool. The series of swatches and the series of a swatch present a method for rebuilding material descriptions within the re-design/remake. Looking beyond a t-shirt or a pair of pants is an opportunity to see what might be forthcoming from the current. It could be used as a comparison between what at first might be considered as similar or the same material, but what becomes clear after a close look is that the similarities are actually the differences. The swatches are interesting precisely because they do not remain the same when scanned. Scanning also allows deconstruction of a material/garment without using the scissors, which actually destroys the possibilities before they can be evaluated.

The swatches have been selected from the different categories: waste, obsolescence, and dirt/junk. An example of waste (Nr. 1a) is a mint-colored checked coat where the sleeve has been cut off. This is why the garment is waste, or "dead" as a garment. The red moiré evening gown (Nr. 6) with puff sleeves, is a 1980's design, and therefore outdated and not current anymore; it is obsolete. An example of dirt is the stained blue t-shirt (Nr 4) and so on.

The series consists of single garment-swatches that I have selected to show different possibilities. The series also includes a series of the same swatches to demonstrate the potential of searching for different possibilities in the same garment-material. The series all start the same and then move on in different directions to show how garment-materials can be explored and opened up. It can present a way of looking by abstracting into the material of the garment-material and not be held back by the recognizable details or dirty elements in a garment, as shown by several students in the workshops. The scanner makes it possible to look beyond just "changing the zip" or "adding a print to an old worn out t-shirt".

3.3 The Caption (Result)

The descriptions of the different swatches serve as captions or material specifications. The precision of the poetic line opens up different design possibilities; it is a material description from an aesthetical perspective. The caption is a way to conceptualize the possibilities.

When trying to describe the swatches and conceptualize the design possibilities, I found the use of poetic language liberating. This way of using words has a kind of precision in expression similar to the one the material swatches have. In addition, the differences in swatches after making small adjustments seems easier to interpret and express through a poetic line rather than a more formalized narrative line. Constructing abstract lines to describe the material allows me to be precise in my characterization.

The captions therefore become design instructions by themselves or in combination with the swatches. More importantly, the poems are by themselves also experiments to find forms for extracting and defining the design potential in garment-materials.

The abstract use of words also allow for a different kind of transformation of the material. For example, if one would look at a garment I think of a persona or phenomenon connected to memory in a traditional way where design is to express a particular narrative. The words works to open up the narrative up. The combinations of words creates directions and openings that can be elaboration in more ways and build on, perhaps more easily than a more traditional "narrative". The poems help to see also 'the other' of a particular character or way of wearing or using a product.

The swatches provide analysis of the expressional and functional values of the design possibilities of the material. They aim to expose other design potential in the material than what might be arrived at intellectually. one may intellectually may find and define by unpicking a general potential by unlocking materials that are contextualized.

86 |

lustrous crispy pastel pink

fancy functional

two white stripes suggesting

a third white stripe hidden nearby

gathers at the one corner

a center of volume vertical direction dominates

the bias one



chameleon mesmerized at first

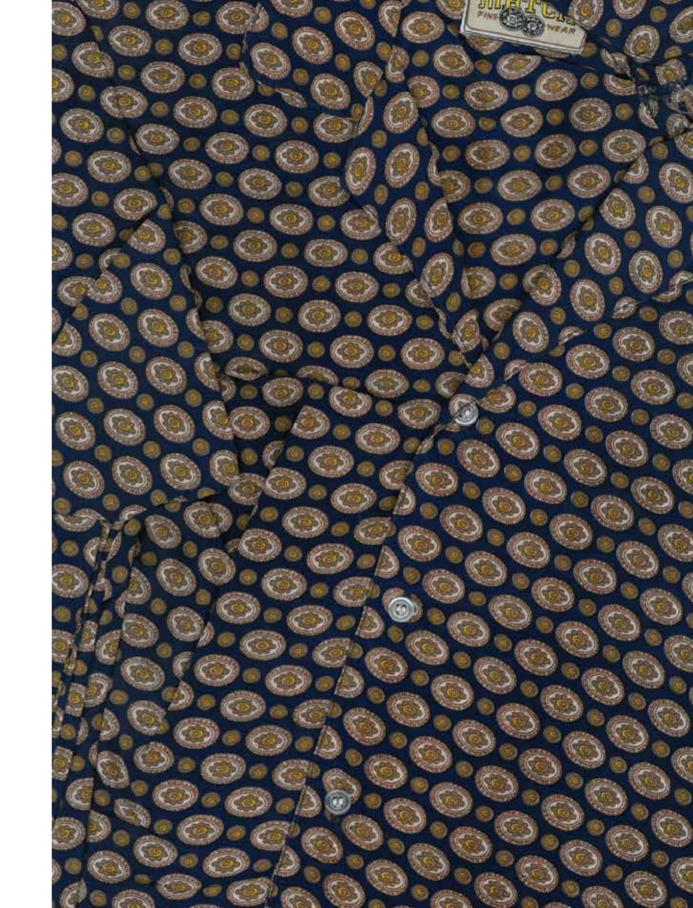
navy waves astray dots on bias

> buttons three in a line

drowning rhythm then discovery

the collar the label the closing

the gentlemen



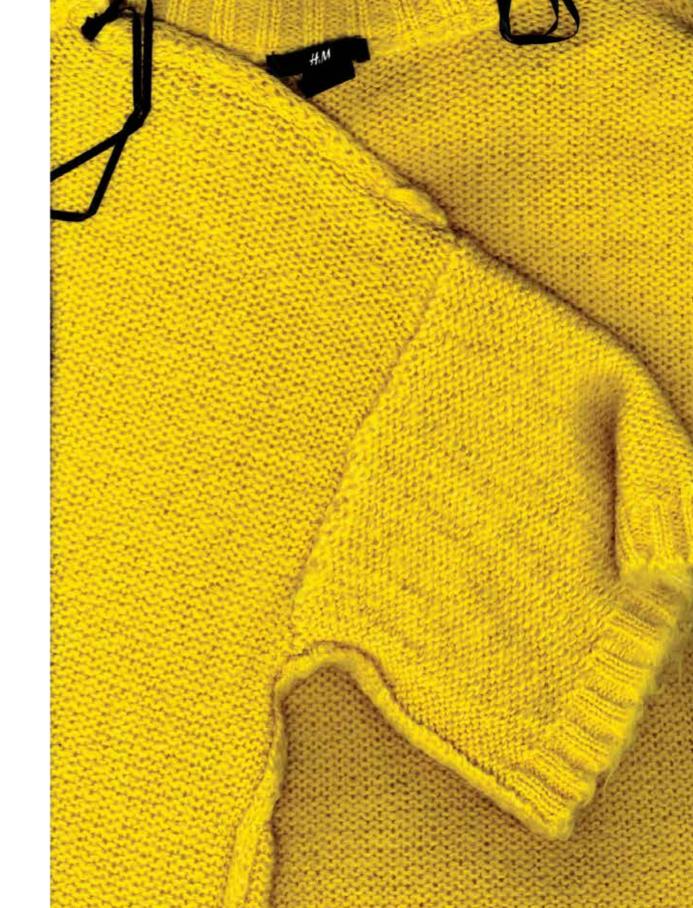
3. inside out

bright yellow squeaky not too provocative

screwed in a diagonal a folded body chubby

contrast details hiding pilling

itchy cozy irritating



klein blue inside out

a spit and a sneeze

white spots like post-it notes fill in or overwrite

food for thought canvas-like



inscrutable gorgeous and voluminous

the one-time wear

paper like satin weave

flower garnishing overflow

machine-made

dirt-white silk wannabe



oily

wavy

such a babe

machine-made crisp touched by hands

a waistline hidden, cutting through loops and buttons standing straight

fun

frill

rigid

grandiose and more



scream
crimson radiant
dazed and confused
light

bold blocks and color clash

dangling straps and dots of gray

a diagonal direction in glaring green

thoroughfare smash

artificial



fur-like but no fur a landscape brushed by wind

crayon-painted all over

a map of something hills and a river

a neckline and a strap

pressed-motion luster

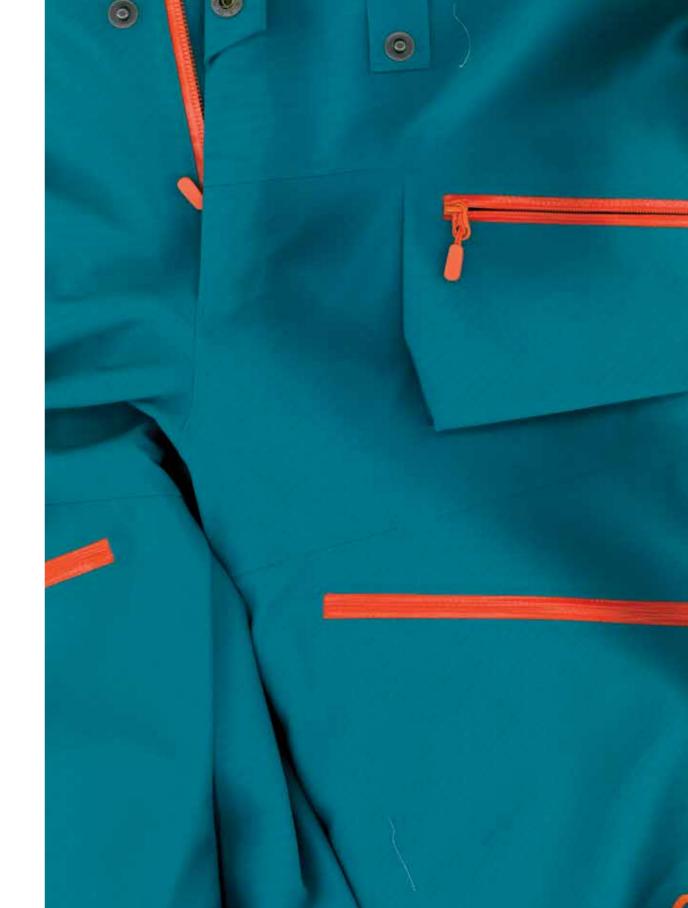


dependable sharp impervious

geometrical directions all over

contrast colors bold smooth

prominent supportive floating around



durable probably long lasting

card board colored

creased, as if a body were still there.
analog still

dry boxy details

does not offend wants to blend

in with nature

suitable



sunbeam dash mildly wrinkled buttondown

gingham

a peephole to the left

blue grid repetition stiff collar

relaxed in general inexpensive

hairy chest



pleats lots of pleats
wavy as a
cornfield

mischievous orange very material- like

a sense of garment movement in layers

a hint
a sharp edge
might be the ending
perhaps the beginning

a hint of a hem



outdoors blue

cold is the winter synthetic

machine-made nature simplified basic primary colors

> very flat like anybody

pixeled repetitive blocking

naïve or extreme clarity



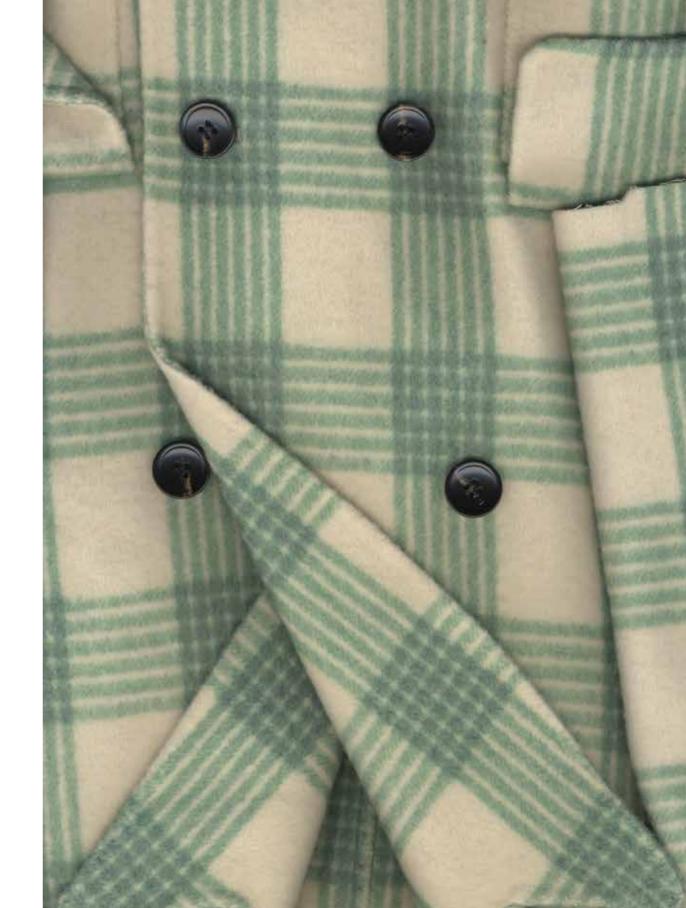
1 a.

six times six crossing roads

mint-flavor felted

licorice pastilles paper airplanes

cut of absence clown



1 b.

six times six crossing roads

mint-flavor felted

eyes closed laughing face

clip clap

ice cream cone

cut of clown



2 a.

emerald green dry

glaring white metal closing leading away

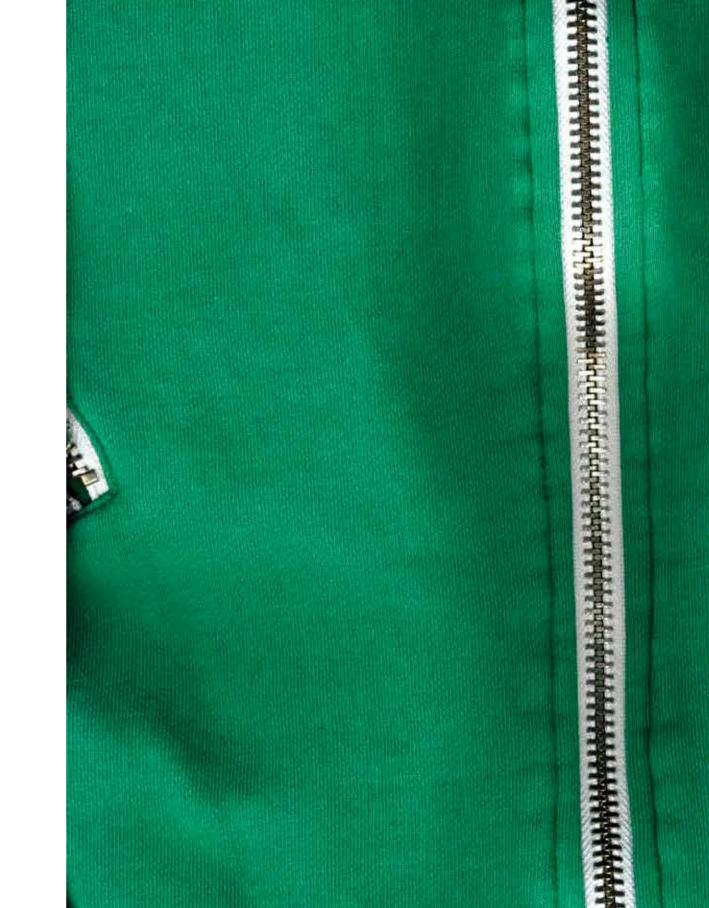
beyond

the ordinary everyday

sunshine between the lines

not noble nor prime

anything



2 b.

emerald green dry

a particular white unzipped

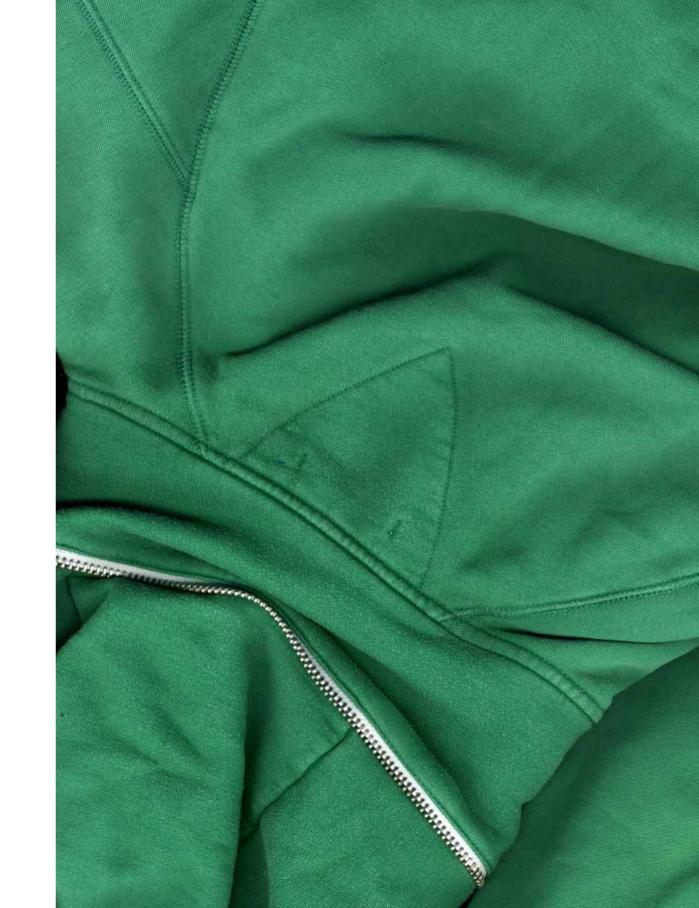
leading away

bias beyond the ordinary everyday

angry bird

sporty-like seams and lines

not noble nor prime



2 C. emerald green dry

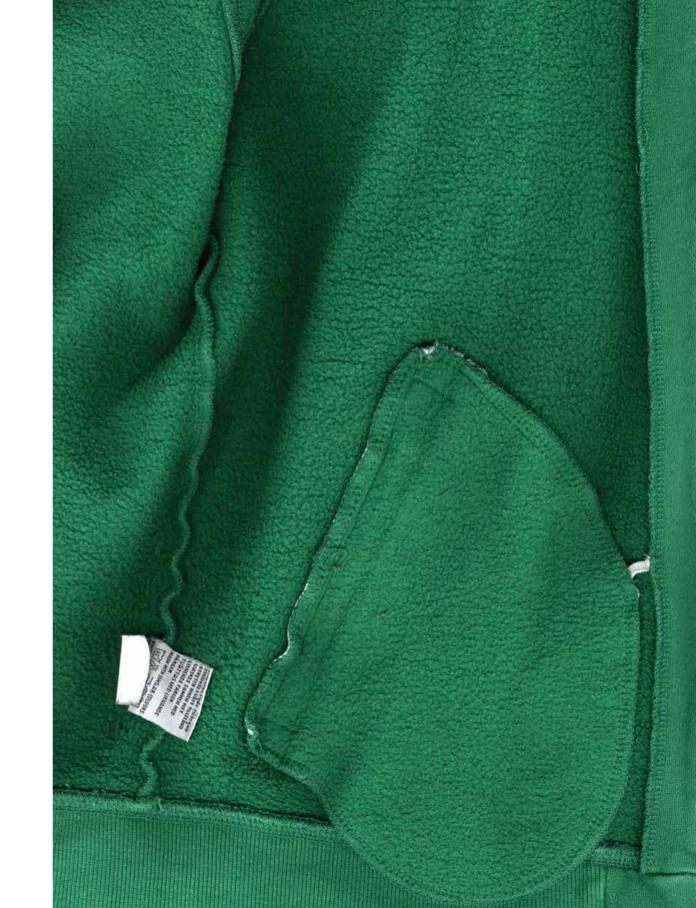
behind the scenes naked truth

inside fluff restless out

table of content

the ordinary everyday

not noble nor prime



3 a. about those

flowers

the gray gardens and golden days

a pair of pearls found in the haze

zip-locked floral armour wafts of heavy perfume

on the edge preserved

late afternoon



3 b.

about those flowers

the gray gardens and golden days

plump flowers camouflage

thin lines cut inbetween the fields

dried-out heavy perfume

a woven boudoir

to hide inside



4.POINT LINE GEOGRAPHY

The students' explorations of using garments as materials for design development (Chapter 2) showed that garment-meaning often get in the way of garment as materials. A T-shirt, or a distinct pair of Levi 501s with its meaning in a fashion context, or a knitted argyle golf sweater were 'filtering fogs' that prevented the students from being able to identify the potential of the garment as material. The garment takes on the preconceptions and preconceived notions of fit, silhouette, body shape, identity, style, history, brands, and current trends, such that traditional fashion-design associations makes viewing the garment as a material hard or and at times even impossible.

Placing a garment in the scanner connects it to the now; it has no past, no future, only a focus on the garment and its specific qualities as a material. The scanner enables specific garments to be put between brackets, and the perspective on them to be changed. The scanner presents a frozen moment where no history, origin story, possible future transformation, or ideas regarding what it is to become get in the way. Within the scanned swatch, a stain with a beautiful form may be far more interesting than a topstitched seam sewn onto the material. A flamboyant frill may turn out to be not as exciting as expected, but a dry, textured shade created by a frill could be thrilling.

Each swatch provides an alternative perspective that goes beyond routine ones. The material comes closer and becomes more tangible, tactile, and clearly a textile. The flatness and cropping both create depth and change the perspective. The caption linked to each swatch is a material description that describes the material in ways that go beyond the obvious, rather than pointing out a specific fold or a topstitched T-shirt hem.

4.1 Aim

This chapter explores what it might mean to approach a garment as a material in this way – by scanning it and describing it with poetic text. The aim was to deepen the understanding presented in the previous chapter of what it is like to approach a garment as a material, which was explored by allowing a group of design students to work with garments in the form of swatches and captions linked to each swatch, as is described in Chapter 3.

128 **■**

The idea was to explore the idea of approaching the garment as a material by further exploring individually developed tools such as the scanner to broaden perspectives. The experiments conducted by the students using the scanner were just one example, but these exemplify a more general approach to the question 'how I can approach a garment as a material?'.

The analysis of the results involved describing what approaching garments as materials, as swatches and associated captions, involved, by focusing on both a number of examples and looking at the results in a more comprehensive way. The analysis was also an attempt to more abstractly describe material methods, in a similar manner to that described in Chapter 3, where the workshop explored different 'methods' such as 'to search', 'to forget', and 'to destroy'.

4.2 Experimental Setup

The concept of 'garment as material' is fundamental to the context of garment redesign. Garments are often thought of as the end point of a design process, but need to be reconsidered to be the creative starting point. The idea that garments are the end point of a design process, which is found in traditional design processes, is contrary to that in redesign, and thus needs to be reconsidered in order to allow designers to instead use garments as the starting point of a design process. Thus, garments should be materials, rather than end points of raw materials. How can we design using whatever garment is 'to hand', be they ones that have been used or are surplus? How can we capture and describe the expressions of garments as materials beyond the T-shirt or pair of trousers itself? The aim of the workshop was to obtain an understanding of garments as materials, and to search for and describe material expressions.

The students were given the following brief:

- Choose 10 garments however you wish from the dustbin, your wardrobe, family or friends' wardrobes, etc.
- Scan the garments as many times as you want. Use the full screen on the scanner to keep the scale. Make sure the scans are high-resolution. Search for things in the garments that interest you.

- Print out your scans. Look at the scans and select a few for each scanned garment, which you should make into series of swatches. In addition, select a few of your favourite ones, preferably one for each garment.
- Describe the expression using writing, trying to be as precise as possible. Your descriptions could be associative/poetic or instrumental/descriptive.
- Create a presentation featuring your descriptions and scans to show to me and a classmate on Wednesday.
- Develop and experiment with ways of using swatches and captions further in your work. How can these material descriptions, which focus on expression, be used as design instructions? Sketch, make a collage, etc. do whatever you like with the material.
- Develop a minimum of 5 ideas.
- Gather your ideas, photos, and other design material and experiments together in a presentation, to be given on Friday.

The students worked with the materials for one week. They presented their scans and descriptions on Wednesday during a brief, Zoom-based supervision session. After this the students reflected and analysed what the material could be developed into and how they could work with the swatches and captions as design instructions. The results were presented in a final seminar.

4.3 Results

The outcomes, descriptions, and analyses of the workshops for all of the participants are presented below. For each student, a selection is presented that aims to summarise their outcomes. This is accompanied by descriptions written by the author.

130 ▮

STUDENT 1

"in the colour of love"

"a touch of cerise"

"denim blue demonstrates roughness"

"a contrasting shade of yellow"

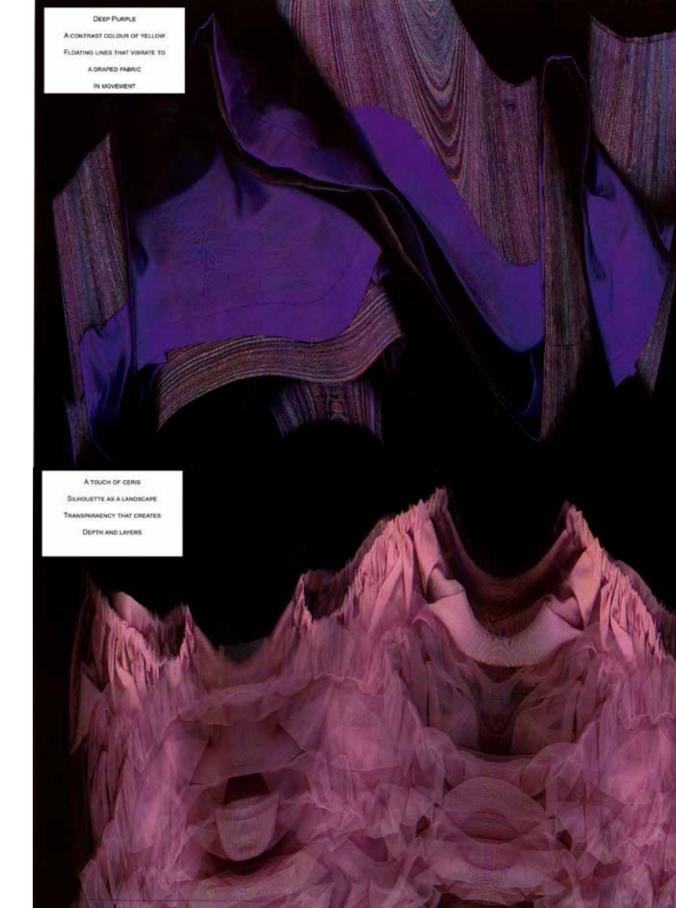
"touched by the wind"

"silhouette as landscape"

"floating lines that vibrate to"

"empty space and shadows tell us"

Note: Associative and poetic expressions, descriptive and prosaic. The scans were blurred, by the student who was moving the garment during the scanner process, that created the wavy expression.



STUDENT 2

"pastel colours" "washed pink" "dark green" "sharp colours" "metallic shining effect" "no shadows" "flat" "glitching in the middle" "sporty" "active" "lollipop pattern" "chewing-gum taste" "worn-out" "worms out of holes" "bottom of the wardrobe" "non-functional pocket" Note. Direct, straightforward descriptions of colours. Form and details were described, as were visual-verbal connotations. No embellishments. Twirled and gathered scans,

Dark

Flat

No shadows

Sharp colours

Print towards left corner

Folded

Cut off

Glitching in the middle

Dark green

Metallic shining effect

Twisted writing

Opposite sides

Divided

Hidden zipper

Sporty

Active



spontaneous. Distortions.

STUDENT 3

"rich colour"

"richer than real life"

"complementary blue/orange"

"rosebud and petals"

"beautiful blue"

"inner pocket on the outside"

"character"

"repetitive"

"unintentional beauty"

"warm on a cold day"

"sweaty on a hot day"

"temporary wrinkles"

"right sides fit together with right"

"lines lines lines"

Note. Direct and open. Associative, expressive descriptions. Points at locations and shifts in locations. Combinations of emotions and functions. Straight or creased crop scans.

Rich colour

Richer than in real life

Sharp

Sharper than in real life

Inside out

Inner pocket on the outside

Laundry tag

Separate directions

Suptle texture

Character

OH, the print is too big for the shirt, hmm SMASH

Print on print

Aa so you should go camping with your far too big t-shirt

I told you, I'm not going to wear tight dresses anymore

White as your soul

Eyes one you



STUDENT 4

"Pink
Pink
Really pink
All pink
Too much"

"Layers of turquoise Waves of water Still not dripping"

"What do I see? Armholes in the future Life of a garment"

"Elastic waist Where to put it How to wear it?"

"All the details
The metal details
How to build a pocket
Correct order
How incorrect?
Why all the rules?"

"Open zippers
To alter shape
What's behind?
Secrets when closed
Invisible details you don't notice at first"

Note. Narrative. Investigative descriptions. Noting colour, shape, and details. Questioning the material. Scan of inside, manipulated. Detail, centred scans, but open, outgoing.

Buttonholes with not enough buttons To altering the shape?

A folded collar A tag iDed

Slipping away Thin Wrinkly How to fix it? How to enhance it? The wrinkles

The nicest inside Seams covered

Pockets connected To the side

How to connect the zipper? If not to the other side of the front

Hide all the frilling parts Everyting is connected Everything is finished Yet still ruff



White

Dimension

Depth

Knitt

Matte

Stripes

Snake skin

Pink

Brush strokes

Zigzag

Falling

STUDENT 5

"Pink"

"Purple and gold"

"Lavender Daisy"

"White"

"Nude"

"Darkness"

"Dimension

Depth Knit"

"Inside

attachment point

Folded"

"Torn

Inside-out"

"Brush strokes

Zigzag

Falling"

Note. Direct. Details. Accurate but closed. Random. Occasional association. Garments were almost fit in scanner through creasing and folding. Used the scanner with the lid open to frame garment with black.



STUDENT 6

"Sandpaper"

"Clinical white"

"When the sun hits the water the horizon looks white"

"That's my favourite blue parking sign blue Dory the fish blue"

"Footprints Follow the path Garden path"

"Google Maps 2D Satellite view"

"Chaos under a perfect surface"

"Summer house Pre-drinks"

"Crisp Edges Soft"

"Caves and hills"

Note. Geographical descriptions. Places and activities. Situations and characters. Small details focused on, both obvious and overlooked, as small points in a larger open structure.

Hidden clues Stories to tell

Brightness Transparent

Dots

Sports Fitness

Light Featherlight Soft

Bruises

Appreciated

Stuck Squished Smashed

Clinical white Hospital white

When the sun hits the water the horizon looks white

Blue values

Colorful spots

Let's stay sharp But it's turning messy

Let's go swim

The bluest waters might look green

That's my favourite blue

Ikea blue parking sign blue Dory the fish blue Cocktail blue



STUDENT 7

"Red

beige

dark brown

one straight line between many dots"

"Endless

intuitive

detailed

appears to be something else when looking closely"

"Distorted

giving a misleading impression

misrepresented"

"Untroubled

active

running"

"Casual

wanting to do something

not able to control

chaotic

lively

reckless

showing determination"

Note. Prosaic descriptions. Descriptions focused on behavioural characteristics. Scans focused on the linear structure of the different materials of the garments.

heavy

loud

independent

a lot of fabric

soft

ruffles

simple yet complicated

reflective

exciting

daring





transparent
soft
layers
light
soo easy going
uncertain
not reliable
beige
open

fragile

vague

mysterious

communicating in an

unclear way

tangled hiding

not rushing

disconnected interrupted and connected

intuitive

secretive

minimalistic but expressivezz





eased up unsettled inviting uncertain free-spirited moves along

free from

responsibility

moves along the body loud nostalgic

STUDENT 8

"Blue heaven"

"Clear"

"Fingerprint
Heat waves
Topography lines
Bending mouth
Metal teeth"

"Shark mouth Mysterious silver ants"

Note. Landscape descriptions. Animated. Animal and human elements and characteristics. Scans showed highs and lows, topography of folded garments.

BLUE HEAVEN

CLEAR

CONTRAST

SEAMS AND HARD LINES

CORNER

HEAT WAVES

TOPOGRAPHY LINES

THE FINGERPRINT OF THE TEXTILE

SQUEEZED WET SUIT

SHADOWS

SHARK MOUTH

MYSTERIOUS SILVER ANTS

FAVE

NEON GREEN

CONTRAST

"TRUE COLORS"

INSIDE OUT

VULNERABLE

FLOATING ZIPPER

VOLUME

STOMACH ROLLS

BLACK HOLE

NO GRAVITY

SQUEEZED

LINES IN DIRECTIONS

FAVE



STUDENT 9

STODENT 7
"Circus"
"Forest"
"Pink Barbie"
"Disrupted directions Crashing stripes"
"Alive Shades
Forest

"Eating Swallowing Disappearing

Organic Mystical"

Falling out Alive"

Note. Described expressions in relation to situations and activities – something that is happening, ongoing, something someone is doing. Scans of garment were manipulated to show both inside and outside at the same time through arrangement.

GARMENT 1

Spinning counterclockwise

Stripes

Irregular pattern

Colour blocks

Composition of different materials

Blood

Emergency

Crime scene

Chaos



Eating

Swallowing

Disappearing

Falling out

Alive

Pink

Barbie

Stiff

Damn

Four thick seams on the fly



STUDENT 10

"Division

Motion

Cuts"

"Sculpture

Vacuum seal

Holographic

Bands

Elastic threads

Elasticity

Negative space

Poplin"

"Unknown

Contrast

Washing instructions

Dry-clean only

Made in China"

Note. Direct descriptions, both particular and general. Focus on details. Both random and precise. Whole garment scanned inside-out. Isolated/framed details on blacked-out garment. Lines around and next to detail.

Roads Striped Vision Division Motion Cuts

Bright Wrinkles Depths Origami Mountains Landscape Fields of orange



Wavey

Chilish

Snow

Stiff

clean

Smooth

ummer

Norm breaking

Dimentions

Picknick

Smooth

Dizzy

STUDENT 11

"Friendly cardigan"

"T-shirt dislike"

"Dress like"

"Wavey

Childish

Snow

Stiff

Clean

Smooth"

"Summer

Norm-breaking

Dimensions

Picnic

Smooth

Dizzy"

Note. Identification of type. Statement of attitude towards garment. Multiple scans of garments. Different linear structures for each garment.



STUDENT 12

"Team shirt"

"Team, always a team"

"Vintage American sportswear"

"Mix between a hockey-player's and a football-player's shirt"

"Stars, all these stars connect with sport garments"

"Details in black and white, you could see that I am a sportsperson for real, in fact that's what he said"

"THREEeee stripes, no really"

"Sound when you walk"

"Rattle rattle"

"Snowboard trousers but a summer lookalike"

"Easy-going."

"Items in all pockets, fuck the bag"

"The cool brother"

"Work pants details"

"On your way to an important business meeting, spectacle yeeeeeees: D. No"

Note. Expressions described in terms of character and activity. Concrete details and social categories connected. Scans of necklines, labels, and brands in folded garment structures partially cropped. Inside-out scans, also with labels.

- Sound from when you walk
- -Rattle rattle
- Snowborad trousers but a summer look a like.
- easy going.
- Items in all pockets, fuck the bag.
- The cool brother.
- Oldschool hip hop music vibe.
- Work pants detalis.

- Team shirt.
- Team, allways a team.
- American vintage sportswear.
- Mix between a hockey player and a football player shirt.
- Sports stripes.
- Stars, all this starts contect with sport garments.
- Shiny grey, specially in the sun.
- Details in black and white, you chould see that iam a sportsperson for real, in fact that what he said.





STUDENT 13

"Unnatural

glossy"

"Deflated beach ball Barbie"

"Chemicals"

"Diagonal"

"Stripe"

"Optical illusion"

"Pattern matching"

"Arrow pointing down!

"Laundered"

"Logo"

"Office"

Note. Scattered descriptions. Single concepts. Few words. Scans abstracted material qualities – fabric folds, no details or single, small details in each scan.

stripe

diagonal lilac

optical illusion

sheen

bubblegum

shadows + lines purl stitches

cables

vertical lines tag

STUDENT 14

"Worn and torn human touch sun-kissed marked"

"Burgundy rad red

taste of warmth

motherly fruitful"

"So little holds so much"

"Above, beneath beside inside unravel"

"Bricklaying sand"

"Patched Easter tulip"

"Landscape of night and day stripes of darkness in the light horizontal paths graphic puzzle fine lines handwritten seams"

Note. Associative and poetic precision. No actions, no judging. Here and now. Present. Scans of inside-out garments. Lines and blocks.

landscape of night and day stripes of darkness in the light

horizontal paths

graphic puzzle

fine lines handwritten seams

worn and torn human touch

marked

sun bleached

generations matter

minty squares

natural beauty

oldie with crisp



4.4 DESIGN DEVELOPMENT

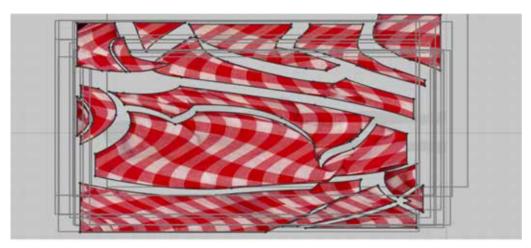
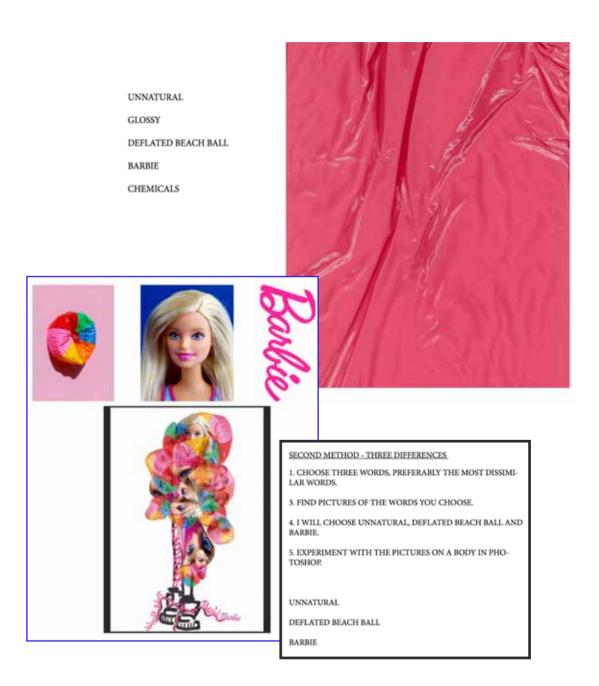








Figure 5. shows how a swatch have been transformed to pattern pieces and transformed in to a dress in the 3D fashion design software program CLO is a. An example of a **'line'** approach Student 11

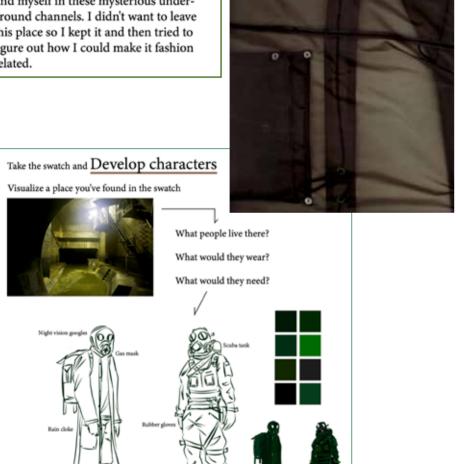


Figur 6. shows how the descriptions 'unnatural', 'barbie' and 'deflated beach ball' has served as inspiration for a digital collage. An example of a **'symbol'** approach Student 8.

Looks like an old photograph. The monotone colours are very calming.

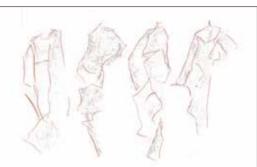
The thread through the transparent tube gets me to think of underground tunnels hidden underneath cities.

I chose this one because from the lines,pockets and cords in the swatch I find myself in these mysterious underground channels. I didn't want to leave this place so I kept it and then tried to figure out how I could make it fashion related.



Figur 7. shows how a swatch has been used as inspiration for new deigns. An example of 'character' and 'contect* approach. Student 2.





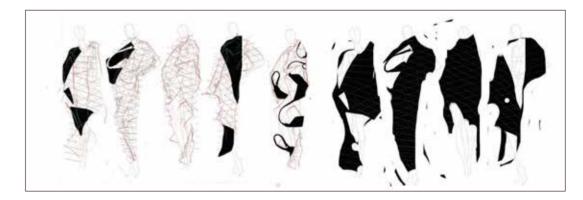


Figure 8. shows how a swatch have been transformed to pattern pieces and transformed in to a dress in the 3D fashion design software program CLO is a. Student 7

162 163

4.5 Analyses of results

This section presents the possibilities and challenges posed by approaching garments as materials. This was done by scanning garments and describing the resulting expressions.

A general conclusion that was drawn after analysing the students' outcomes is that approaching garments as materials generally seems to be challenging, although some of the students also found some possibilities.

The scanner appears to have provided new perspectives on the garments, helping the students to see them in a different way than they are typically perceived. The findings suggest that the scanner can help to open up and find inspiration, to open up the designer's mind and imagination and assist them in finding inspiration in things that one does not at first like. However, some of the students found it difficult to shift their mindsets and work with the swatches and captions as design-process starting points. Two of the students described their experiences as follows:

I really liked the process, that we were given instructions piece by piece and also that we were free to work abstractly if we wanted to. And to use words, because that's something I feel very comfortable with, but haven't previous done during my sketching process. [...] And it opened up a lot more for me, to think of a process differently. [...] And the pictures are what inspired me to go further with the words and develop what a garment or design proposal could be. So I definitely think that the pictures are important. (Student 14)

I hate that shirt. I never use it. But when I put it in the scanner, I got much more inspiration than by looking at it straight on. So yeah, definitely [...] It was kind of difficult, I think. ... It was of course much easier to describe what I saw, but the feeling... When I had started it was easier, but at the beginning it was difficult to get into the mindset and how to think... (Student 9)

The students also found that re-formulating expressions using words opened up for new perspectives and understanding, and that the scanned swatches 'provided ideas with which to formulate poetic and precise descriptions. For example, several students felt that when they scanned the garments and wrote text, it was more inspiring to work with the text as a design instruction as they knew which garment they were using, which was limiting in different ways. As a result, knowledge about particular

garments was initially an obstacle to further visual work, while the writing helped to create ideas.

However, when the swatches and captions were created by someone else, the students generally found it easier to work more freely and precisely with the image, because they did not know what the original garment-material looked like. When they received a swatch and a caption from one of the other participants, they generally worked with both or focused on the picture, because in these cases the students were not guided by their knowledge of the original garment. For several students, working with writing was felt to be beneficial because they did not know what the garment actually was. When they knew what the garment had been before the scans and writing had been created, they found it more difficult to develop something new.

I was more inspired about the writing I did, but for [Student 11] I think it was a combination of some of their words and the picture. [...] I guess I had already formed ideas when I wrote, so I had something that I started with. I immediately got ideas from my writing. And as I didn't write what [Student 11] wrote, it's not that easy to translate into something. So I guess that's why [I found it difficult]. (Student 4)

I feel like this way of working is really fun, and I feel like it's so much ... you can get so much out of it. I feel like my imagination... Or using a scanner as a tool, it makes ... A simple garment can be so much more, and I feel like it allows my imagination to just keep on going. And I really didn't think I could get so many ideas from a scanned garment [...] I like to work very abstractly, so I really enjoy just writing words and not having to explain myself. (Student 8)

When writing, Student 4 simultaneously formulated ideas and explored the garment in a hands-on way through physical manipulation. For this student, describing using words was a way of sketching, where the swatches and captions were used within an active design process. Student 8 found the scanner very useful for exploring new possibilities with the garment, and imagined faces and body parts in the scanned materials. This student also did not need to describe expressions using full sentences, and instead used individual words, moving from one to another without searching for a particular meaning in the development of their thoughts.

164 **■**

The combination of the scanner and swatch approach is just one example of a technique for exploring a garment as a material, and more students in this second workshop than in the first appeared to see and imagine design possibilities by viewing garments as materials. For example, some of the students felt that it was good to work with words as these allowed them to describe the expressions they perceived, as well as to come up with new ideas through words that became a kind of sketch, providing an understanding of the garment-materials in a different way.

Other students did not use writing on the basis that they think of themselves as visual people who do not need words, and instead added visual references. Furthermore, it is clear that many of the students struggled to describe expressions. We, as designers, often believe that we describe the expression itself, when in fact we are instead describing something that we associate with the expression, such as an activity, character, function, or context. One student, for example, focused on character and attitude, and found it easier to connect the garment in terms of both swatches and captions to a person or activity than to describe its expression:

My words were those of a teenager who ignores what his mother says and wears a high-school shirt, always has the same shirt, washes it out, sweatshirt material, wear and tear from different things. And here I think it was interesting, like, how can I express wear and tear? I wanted to make a trash expression. [...] And it gave me so much more than I was thinking about at the beginning. I realised that I'm not so good at explaining ... or, like, what I see, the properties of the material. Or the structure or the feel of it. I realised that I connected more with a person or something that happened, or if there is music or it's... from school or whatever. (Student 12)

Another student used the swatch as the starting point for a story, a character. The student struggled to explain what they were visualising, and so put the writing and swatches aside and continued to free-associate regarding an imaginary place, who might live there, and how they might dress, and created a concept that did not make use of writing or the swatches:

I don't really think in words, so I don't really find the right words to describe exactly what I see in my head, I think. I'm not really sure actually [laughs]. [....] I actually realised that I never really used the words. That's why I made it... This was actually the last one I made, because I was like 'oh, I haven't used

the words'. So I used only the words here, so... Yeah, my first thought is not to have the words as a help, so... Yeah. (Student 2)

The scanner could be used as a tool to add to the garments, for example making them appear to be more vivid than in reality. However, this could also be achieved by photographing that same garment on the floor or a body and re-representing it in this way. However, describing what you actually see in front of you in a swatch is very different to describing what is in your head or associating with a place or atmosphere, and this is where many designers become stuck during a design process.

Leaving aside these relatively general conclusions, a deeper analysis of the results points to something more conceptually interesting for redesign methodologies in relation to basic questions: What is it? What do you see? What can it be now? What can you see now?

4.6 Conclusions

The first key reflection in relation to the questions posed at the end of Section 4.5 is that many of the students seemed to stare blindly at, or be caught out by, a brand label, zipper, button, collar, or similar as a symbol of something full of meaning. Other students, on the other hand, appeared to understand or treat these kinds of details not as symbols but more openly, as points from which to explore new design ideas through new structures using the scanner, and continued to work from these during design development. Following this stage, it appears that some of the students treated garment details as novel starting points for new mysteries to be solved, and looked at the swatches as a place or a landscape in which they could search for new possibilities. For example:

It came quite naturally I think, to... because once you find a few details or a few characteristics in the material, you could... Either you could just point out quite... how do you say, obvious things. Like shape or print or whatever. But then you can also dive deeper into, what could this crease mean, what could this shadow and lightness mean, that could be something more poetic? So I don't know, this came quite quickly and it was fun [...] Yeah, well, since you put it into a new kind of context, I would say that it has more... not more

meaning, but it has... You can bring a story to something that is quite basic, just by choosing this little frame. And on your own, you can add as many stories to it as you want. (Student 3)

So I was trying to represent those words with something visual as well. [...] because they had a story behind them and I could build on that story. [...] when there are specific words, they were just more concrete and more understandable. (Student 7)

The scanner helped Student 3 to add more meaning to something basic, to go beyond simply stating the obvious. The student found details, but also used the swatch as a canvas to add a different meaning to the detail. The structure of the material around the details opened up for a narrative, like a point on a map. For Student 7 the words were very poetic, they gave direction. The scanner appeared to open up for a design direction for further development, and the writing helped the student to build a story. However, it was also a process that showed something conceptualised using the material; the student tried to guess which words matched the swatch by adding descriptions of what was not there.

The second key reflection, which also connects to the relationship between symbols and points, concerns the structure of the garment in the scanner. Some of the students scanned the garment around the symbol, as if it were folded in a shop and for sale, or attempted to fit the whole garment in the frame of the scanner. Some also described the swatches in terms of characters, actions, or similar descriptors, framing the swatches in an attempt to somehow 'catch' a whole or conceptualise a swatch in its entirety, as something complete or whole.

Other students saw or used the details more geometrically, placing this in the centre, either carefully arranged or seemingly at random, and then folded, creased, or turned the garment inside out to suggest new structures from or around the detail. Several students did this with different linear structures that 'inserted' form into the material through the use of lines of various characters and structures. These lines appeared to give an important direction of some sort, opening up for the designer to consider the garment as a material and leading to a rethinking of details that may have preconceived meanings attached to them.

For example, one of the students worked with sentences instead of single words, which they felt were difficult to use on the basis that they are disconnected from a wider meaning. Single words, the student felt, are too literal or open. Instead, the student mainly developed their design using visual elements from the scans as inspiration, and used the swatch as a starting point for a story, a character. Another student stated that the garments became lost in the scanner, suggesting that elements such as form or symbolic qualities were the basis for design development or were removed altogether. Another student experimented instead with the placement of materials, setting the scene for a fictional scenario. They found it difficult to use the scanner in order to find different details and other characteristics:

For every garment I did one scan that was basically just flat, so that you could focus on the material and the print or whatever it was. But when I saw wrinkled stuff, I thought that partly made the materials more alive, or it was maybe easier to see what they looked like. That also created a scene a lot more when the material... the pattern, whether it's leather... there's always a pattern, or if it's an actual print, was disrupted, that would create a place in another way... (Student 6)

My own [words] were a little bit easier for myself because I designed based on a... let's call it a story, somehow. (Student 1)

A final key reflection, which connects to the previous two, is an identified tendency on the part of the students to think either contextually or geographically. For many of the participants context was important, or at least came quickly to their minds. For example, activities, attitudes, and characters associated with a garment were conceptualised with different contextualising elements, such as situations, conditions, positions, time etc., to create relatively 'complete' narratives. In addition, the symbolic qualities of details were used in these stories as building blocks of meaning.

Other students talked in terms of locations and shift in these, and manipulated garments in the scanner such that they created new types of garment-materials where details had shifted position and been arranged into a new kind of material landscape. Here, both the lines in the materials described and topological properties seemed to be important.

In conclusion, there appear to be further methodological design dilemmas when designing with garments as materials, and these need to be considered alongside the findings of the earlier chapters. These challenges relate to points, lines, and geography rather than symbols, characters, concepts, and contexts, which seem to play an important role in the design methods (Tabel D)

Symbol	Character	Context
Vs	Vs	Vs
Point	Line	Geography

Table D. Approaches to redesigning/remaking the material.

What does this mean, then, for the swatches and captions as tools with which to approach garments as materials? While some of the participants found the scanner, swatch and caption useful others did not, which means that more methods for considering garments to be materials are needed. These could be part of design methods for searching, destroying, and forgetting, as well as design developments that focus on points, lines, and geographical design variables.

In Workshop #2, chapter 4, only one student used the original garment as a material for the design of a new garment. The swatches and captions were used by more than 90% of the students as sketching material within different types of ideation process. The sketches were then intended to be used to create garments using other materials, with the original garments not being used as materials in the design of the new garment. This was felt to be problematic as the processes did not use the resources and expressive properties of the original garments as new design materials; instead, the focus was on design processes based on other materials.

5.1 Aim

The aim of this workshop was to explore the potential of garment as design materials for new garments. This was undertaken by giving the students explicit limitations for their designs, and tasking them with making something completely different and new based on the garment that they had selected.

5.2 Experimental Setup

All of the students were given the same instruction: scan the material you have been given, describe its expression, and use it to design a pair of trousers. The reason a pair of trousers was chosen is that it is often more difficult to rethink and redesign an archetypal function and form. In addition, the lower body is seldom focused on, perhaps because tailor's mannequins often lack legs. Designing a pair of trousers using an upper-body garment was felt to be more challenging than reworking a jumper into another type of upper-body garment, for example.

The students were given the following brief:

- Choose five garments however you wish from the dustbin, your wardrobe, family or friends' wardrobes... It is crucial that you select garments that you can cut and work with in different ways.
- Document the back and front of the material by placing it on the floor and taking photographs.

- Scan the garments as many times as you want. Use the full screen on the scanner to keep the scale. Make sure the scans are high-resolution. Search for things in them that interest you.
- Select a favourite scan of each material, creating five swatches in total.
- •Describe the expression using writing, trying to be as precise as possible. Your descriptions could be associative/poetic or instrumental/descriptive.
- •Put your captions and swatches in a pdf document and email it to me.
- You will be given captions and swatches produced by one of your classmates to work with.
- •Create a pair of trousers using the given captions and swatches and physical material. You may not add any material to that which you have been given.
- •Document the trousers on a body from all angles by taking photographs.
- Put all of your documented material in a pdf for the final seminar:
- Swatches and captions produced by a classmate
- Photographs of your design material and process
- Photographs of the trousers you designed

5.3 Results

The outcomes, descriptions, and analyses of the workshops for all of the participants are presented below. For each student, a selection is presented that aims to summarise their outcomes. This is accompanied by descriptions written by myself. The seminar was recorded and transcribed by me; all of the quotations are the students' own words (translated from Swedish by me and edited for readability).

The following questions were asked at the presentation: Why did you select each of your five materials? How did you find them? What caught your interest when working with the scanner? What was it like to describe the expressions? What was working with the actual material like? Can you describe what you did? The students had not been notified of these questions in advance.

Student 1: worked with their own swatch and caption

Student 1 selected children's clothes from a second-hand store. When these were scanned, the enhancement of details was found to be interesting. Reflecting on writing about and describing their expressions, the student recalled:

It was quite hard to write the words; I wanted to be direct about how it looks but I was also ironic with my words. It's fun to describe something in another way, how it reminds you of something. It was fun to describe it, but I didn't really look at the words as I should have when I made the trousers. I forgot them somehow. But the words fell into the trousers later on.

Because of the very limited amount of material, which itself was due to the fact that the student chose to work with a child's jacket, the student decided to design underwear. When unpicking the seams, the student realised that the back, sleeves, collar, and lining all added up to a surprisingly large quantity of material. The student mentioned that they enjoyed working with quilt, thick material, and outdoor material, and were intrigued to "work with something very small. To work with what you have, rip out the zipper and put it somewhere else". The student initially had some kind of tennis skirt or shorts in mind, but as they hated working with lining material dropped that idea. "I didn't want to separate the lining from the rest of the garment", they said, so it became underwear instead.

Note. Quite difficult to write and describe expressions. Focused on associative descriptions. The details of the material guided the design decisions. Added piping for a neat finish and to keep as much original material as possible, to avoid making hem folds.

Student 2: worked with Student 4's swatch and caption

Student 2 selected materials with differing textures from their wardrobe and that had been obtained from a second-hand shop. The scanning process caused a lot of the

features to be washed out, especially the darker ones. However, one of the materials had an interesting appearance. The student found it quite easy to write about and describe the expression, recalling: "I tried to group my words. I wrote one sentence on what I actually saw, one describing the material and feel, and one was associative".

Student 2's work with Student 4's swatch and caption was intriguing, in that the material looked dense in the scan and the opposite in reality. Student 2 decided to emphasise the colour of the material and keep a tangible feel in order to keep the trousers clean and let the ruffles flow. "I'm used to working with organza; what was more difficult was the aesthetic of it. I'm quite minimalist, and this is the exact opposite of anything I would ever do". Initially the student had ideas regarding how to reconstruct the material: "What I saw in the ruffles reminded me of a jellyfish; I wanted to keep these ties, I wanted to have the ruffles on the side to use the same closing."

Note. The writing of expressive descriptions came fairly easily to the student, who clustered the material descriptions in three ways: what was seen, the tactile feel of the materials, and other free associations. The ruffles guided the design decisions towards a plain design with ruffles as the main element at the waist.

Student 3: worked with Student 6's swatch and caption

Student 3 selected children's clothes, which came from a second-hand shop: "I really liked the idea of working from nothing to something". The student found describing the expression of the selected swatches difficult: "I'm not used to working with words". The material that Student 3 worked with was a rain jacket selected by Student 6: "I focused more on the garment I chose, before thinking of the next one... The pocket was so interesting, and the arm holes very interesting. You can use them for construction."

The student studied the material, and thought about which parts to use where. As there was not enough material for an entire pair of trousers, the student decided to use eyelets to tie the different pieces of material together: "This is really me. The idea when designing this was, as the original was a very functional rain jacket, to make something that was quite the opposite."

Note. Found it difficult to describe expression due to not being used to working with words. The student studied the details of the garments carefully in order to take advantage of them, and used them as a design guide. They also used parts of the original garment in other places on the body. For example, an armpit was placed at the crotch.

Student 4: worked with Student 11's swatch and caption

Student 4 selected "garments that I could spare" from home. With regard to describing their expressions, they said: "It was fun, I really like coming up with associations. I came up with the words pretty quickly; it was nice. As [Student 1] said, "I looked at it as comic rather than just describing the material."

The material that Student 4 worked with was a blouse made of a thin, slippery material. The student tried to take inspiration from what was on the blouse, such as the buttons. "I thought it would be fun to use either the collar or the cuff as a kind of waistband as they both had buttonholes. The details were already there."

"I kept the collar and cuffs when I cut the shirt as I thought I was going to actually sew the shirt or the blouse onto the garment. But I ended up not using them. They were actually the only parts I didn't use for the trousers."

Note. Found it easy to write and describe expressions in an associative way. Unpicked the material and left the original shirt details out, using the plain fabric instead.

Student 5: worked with Student 12's swatch and caption

Student 5 selected baby clothes with different textures, which were highlighted in interesting ways by the scanner. With regard to describing the garments' expressions, the student found it difficult to find the right words.

Student 5 worked with an evening gown which they felt was a tacky interpretation of a Spanish flamenco dress. The material consisted of a lining, a base fabric, and two layers of tulle. The student tried to remove the lace but found that this was too time-consuming, and therefore decided to focus on using the material of the skirt section. They kept some of the stitching lines to see what kind of curved shape this would create in the final garment.

Note. Struggled to describe the expressions. The dress consisted of a lot of material, and the student used the original stitching lines to direct their design when creating the pair of trousers.

176 **■**

Student 6: worked with Student 9's swatch and caption

Student 6 selected "[t]hings that I don't use. I took things that I felt fine cutting apart". During the process of scanning and describing the expressions of the materials, Student 6 liked the rain jacket most: "it had so many elements to work with, and was a fun material with a lot of information". The student enjoyed the scanning process, which was "a good way to look at the fabric and come up with ideas" They found describing to be more difficult, however, and tried to be associative.

The student worked with was a "1990s or early 2000s skirt, alternative girl-ish. The hooks caught my attention. I liked the ironic alternative vibe to it. The initial plan was to find out how much fabric I had to work with, so that's why I unpicked everything."

The student started to cut the checked fabric and realised that there was not enough to achieve the design that they had intended, and so used tulle, a piece of black fabric, and eyelets instead. The student felt that this way of working fit them, and enjoyed working on something by following the material and seeing where it led, rather than sitting and thinking.

Note. Found it difficult to describe expressions; tried to be associative. Found it exciting scanning the material to detect other things. The rain jacket was particularly interesting because of its richness in terms of details, which triggered imagination. The student unpicked the garment in order to find out how much fabric it consisted of. She rejected most of it and worked with a small part of the material (the tulle skirt).

Student 7: worked with their own swatch and caption

Student 7 used leftover materials of different textures which they had brought from home. With regard to scanning and describing the expressions of the materials, they said: "The scanning removes quite a lot of... I feel you are quite limited by the shape the garment already has. And the scanner removes that, so you are only looking at the texture or the pattern or like details that catch your eye by chance in that plain picture". When selecting the five initial swatches and captions, the student felt that this process was "like balancing what you are trained to think about the garment already, and viewing it for what it actually is."

The student focused on details, and worked with what was there. Their idea was to let the shape of the garment guide their work. Student 7 unpicked every seam and placed what was previously an arm in the centre of a trouser pattern block, and tried to build on that, around the shirt-sleeve pattern piece. Their reflection on working like this was: "It was a cool process. I'm big on planning so it was fun to just go along with the material."

Note. The describing of the expressions came quite easily. Scanning facilitated an alternative view on the material, beyond the actual garment. It exposed other notions than preconceived ones. The student unpicked all of the seams and used the material as a puzzle for the new design and trouser pattern pieces. There was a transition from three-dimensional to plain, which helped the eye to detect other things.

Student 8: worked with Student 6's swatch and caption

Student 8 brought various materials from home: a suit jacket, knitwear, tracksuit bottoms, swimming trunks, etc. The scanner negatively affected the expression and properties, in that it became very dark and difficult to see the actual material. The student found describing the expressions to be difficult, "but as I got into it, more things popped up".

Student 8 worked with a pink suit jacket. The student was intrigued by the folds and depth of the swatch and felt that the colour "popped out". The student wanted to stick to the brief and use the entire garment as a material, keeping its shape and avoiding ripping it apart insofar as possible. The student played with the material on the body and turned it upside-down to be able to use the pockets as pockets for the trousers. "I ripped a couple of seams to see what happened. The lining I used for the legs, still attached in its natural position where it was before. I did very little cutting and sewing on them, and kept everything except the neck facing and the collar. I couldn't see where it would fit in the draping on my body." With regard to working with the entire garment material, the student said that "[i]t felt most playful, the best way to really take advantage of the jacket and my material. My first thought was to really keep the original design – it still has it, but not as much as I expected. It had a kind of workwear feel to it."

Note. The student found it difficult to describe the material's expression, but felt that it was a matter of a 'warm-up'. The scanner negatively affected the expression of the material in that the scan was too dark to make out the details. The student used the entire garment as a material and draped it on a body, taking advantage of the whole material without unpicking it into flat pieces.

Student 9: worked with Student 2's swatch and caption

Student 9 selected materials from the wardrobe. "The scanning process made me see things that I usually don't see. It was a very useful tool. I didn't see them as garments". The scans contained many shadows and wrinkles, which the student tried to describe poetically; they wrote the captions quickly, without thinking too much.

With regard to the material they had to work with, the student wasn't particularly intrigued: "It's everything I don't like – I don't like the pattern, I don't like the quality. Washed-out cotton. It's not so much to work with... it looked like a clown."

The student separated all of the garment pieces and used a "bubble-like" smock technique when reforming them. The student turned the material inside-out to make the colour less bright. "I learned a lot – that you can work with material you don't like, and that can be... at first it felt inhibiting, but after a while one can develop from it."

Note. The writing and describing process were rapid, and the scanner enhanced features of the material in an unexpected way. The student separated all of the parts of the garments and used a smocking technique to create a new form. The student reflected on learning to work with "material you don't like".

Student 10: worked with Student 14's swatch and caption

Student 10 used second-hand materials with different textures and expressions. During the scanning process the student became interested in pocket shapes, different line directions, small creases, and a collar. The student found it easy to write a description of the expression.

The student worked with an oversized T-shirt by styling it and draping it on their body, searching for possibilities. They then laid the T-shirt down flat and tried to fit the

pattern printed on the front onto each side seam of the trousers. "It was pretty simple to work like this, but this was the first pair of trousers I had ever made."

Note. The student found it easy to describe expression and felt that working in this way was "effortless". The material was styled on the body as part of the search for possibilities. Some cuts and seams were added in order to transform the material into a pair of trousers.

Student 11: worked with Student 10's swatch and caption

Student 11 selected "mainly the things I disliked the most", and the things that were most interesting following the scanning process were the ones with graphic expressions. The student found it difficult to describe these materials "as I didn't like them".

The student created technical descriptions of the material they worked with, and tried to utilise the original pattern, shape, and form. They tried to not think about aesthetics, and instead use the maximum amount of fabric. "It was fun trying to figure out how to get the sleeves on, and how to cover it. From a technical point of view, I would never have designed it if I had had the freedom to choose another material".

Note. Found it difficult to describe the expression due to disliking the materials. Unpicked the whole garment and used as much material/fabric as possible. Tried to not think about the aesthetics and instead focused on technical aspects while working with these limitations.

Student 12: worked with Student 8's swatch and caption

This student selected a variety of materials, including a stiff jacket, their own, previously upcycled, garment, and a plain, "boring" red gown. The writing came quite easily to them.

They worked with a hockey sweater, and emphasised the idea of "garment as material, not fabric as material". The student draped using their own body; the neckline fitted the waistline. Arms became functioning pockets when attached to the waist, which was formerly the neckline. The student tried to retain the shape of the shirt insofar as possible while making a pair of trousers using it.

The student reflected: "I didn't want to overdo it, I wanted to keep the shirt. Can we still call it a shirt if it is covering the legs?"

Note. Found it quite easy to write the descriptions. The student worked with the whole material shape, searching for details that could guide the design. A neckline was used as a waistline and arms were used as pockets, altering as little as possible.

Student 13: worked with Student 2's swatch and caption

Student 13 selected garments from home that they had not used for some time, trying to choose as many different materials as possible. When scanning the materials, the student found all of the wrinkles that were created interesting. With regard to describing the expressions of the materials, the student found it "pretty hard to just think about the... I wrote thinking about the garment not the scans. I did it pretty quickly."

The student worked with a baby-blue sweater for a baby that was "really limiting, which was fun". The student unpicked every seam but kept the threads intact, and started making underwear. "It was fun, to have such a small garment, so I had to make underwear."

Note. Found it difficult to write, and wrote with the garment in mind rather than the scanned image of it. Then the design process went quite quickly. The student unpicked every single seam of the material, and made underwear. They enjoyed the limitations of the material.

Student 14: worked with Student 13's swatch and caption

Student 14 choose different types of garments and thought about how they could be used and what they could be transformed into. The student browsed Pinterest for inspiration.

Regarding the process of scanning, the student reflected: "When you see a garment you look at it in three dimensions. When you scan it, it is hard to describe some of the details". The student spoke about two ways of reforming: "Using the whole garment, reforming the old, and using the fabric and working on a smaller scale".

The student unpicked the seams of the blouse material they worked with and used various pieces of fabric to create a pair of trousers for their little brother.

Note. Found it difficult to describe the expression. Considered two ways of designing with the material – using the whole garment as a shape, and unpicking the fabric and using it as base for other pattern pieces. This student used the second approach.

5 4 Reflections

The aim of this workshop was to explore the potential of garments as materials in the creation of new garments, and to use swatches and captions as a starting point for this. This was undertaken by giving the participants an explicit limitation, by instructing them to design and make something entirely different (a pair of trousers) using the garments they were given. This was a challenge in that the students had to rethink the design material.

A general conclusion is that the students generally found working with garments as materials challenging, although some of them also found possibilities. The garments that the students initially selected were not chosen with the idea of making a pair of trousers in mind: this was something that I instructed the students to do at a later stage, as a key part of the experiment was the idea of 'twisting' the material and triggering the design process as much as possible.

Generally, the scanner appears to have provided new perspectives and enhanced unexpected features of the garment-materials, helping the students to see them as something more than simply garments. This suggests that the scanner could be used to open up alternative perspectives on materials.

The scanning process made me see things that I usually don't see. It was a very useful tool. I didn't see them as garments. (Student 8)

The scanning removes quite a lot of... I feel you are quite limited by the shape the garment already has. And the scanner removes that so you are only looking at the texture, or the pattern or like details that catch your eye by chance in that plain picture... It was like balancing what you are trained to think about the garment already, and viewing it for what it actually is. (Student 7)

On the other hand, one student stated that the scanner negatively affected the expression and properties of the materials: the images were very dark and it was difficult to see

the actual material. General reflections regarding describing the expressions of the materials suggest that some found this working method difficult while others felt that it was easy.

I'm not used to working with words. (Student 3)

When you see a garment you look at it in three dimensions. When you scan it, it is hard to describe some of the details. (Student 14)

It was quite hard to write the words; I wanted to be direct about how it looks but I was also ironic with my words. It's fun to describe something in another way, how it reminds you of something. It was fun to describe it, but I didn't really look at the words as I should have when I made the trousers. I forgot them somehow. But the words fell into the trousers later on. (Student 1)

I tried to group my words. I wrote one sentence on what I actually saw, one describing the material and feel, and one was associations. (Student 2)

I wrote thinking about the garment not the scans. I did it pretty quickly. (Student 12)

It was fun, I really like coming up with associations. I came up with the words pretty quickly; it was nice. As Student 1 said, I looked at it as comic rather than just describing the material. (Student 4)

When analysing the students' design processes and the ways they engaged and interacted with the materials, it became apparent that they chose one of two primary approaches, the most common of which was to unpick the entire garment, lay it out flat, place block-pattern trouser pieces on the flattened fabric, and cut out and sew everything back together.

The initial plan was to find out how much fabric I had to work with, so that's why I unpicked everything. (Student 6)

I thought it would be fun to use either the collar or the cuff as a kind of waistband as they both had buttonholes. The details were already there. I kept the collar when I cut the shirt as I thought I was going to make something where I would actually sew the shirt or the blouse onto the garment. But I ended up not using them. They were actually the only parts I didn't use for the trousers. (Student 4)

Another student tried not to think about aesthetics, and instead sought to use as much fabric as possible:

It was fun to try to figure out how to get the sleeves on, and to be able to cover it, from a technical point of view. I would never design it if I had had the freedom to choose another material. (Student 11)

This way of working had very little to do with the original garment, as most of the features, details, and shapes changed or disappeared. This approach to garment-materials is similar to traditional ways of approaching pattern construction, which use fabric by the metre. While the majority of the students unpicked and flattened the materials and used them as scraps of fabric, three students carefully studied the details of the garment-materials and used these as a guide for design directions, albeit still from a 'flattened-out' perspective:

I focused more on the garment I chose, before thinking of the next one... The pocket was so interesting, and the arm holes very interesting. You can use them for construction. (Student 3)

I'm used to working with organza; what was more difficult was the aesthetic of it. I'm quite minimalist, and this is the exact opposite of anything I would ever do. [...] What I saw in the ruffles reminded me of a jellyfish; I wanted to keep these ties, I wanted to have the ruffles on the side to use the same closing. (Student 2)

[It was interesting] to work with something very small. To work with what you have, rip out the zipper and put it somewhere else. (Student 1)

The other perspective on designing using a garment was to focus on using and taking advantage of the material in its three-dimensional form, by starting to drape it on the body and searching for three-dimensional possibilities for creating a pair of trousers, in opposition to unpicking a material and laying it out flat. As one student reflected:

Garment as material, not fabric as material. (Student 14)

Student 12 draped with a hockey shirt on a body. The neckline fit the waist, and became a new waistline. Arms became functioning pockets when they were attached to the waist. This student focused on keeping the shape of the shirt insofar as possible

while still making a pair of trousers, and reflected:

I didn't want to overdo it, I wanted to keep the shirt. Can we still call it a shirt if it is covering the legs? (Student 12)

Student 8, who worked with a pink suit jacket, reflected on the process of draping and working with garment-materials:

It felt most playful, the best way to really take advantage of the jacket and my material. My first thought was to really keep the original design – it still has it, but not as much as I expected. It had a kind of workwear feel to it. (Student 8)

Placing pattern pieces on flat and disassembled garments was more frequently used as a method of designing trousers using other garments than exploring intact, three-dimensional garment-materials by draping them on a body. This may relate, however, to the selection of the materials, and the fact that they differed in terms of suitability for redesign processes.

With regard to understanding this result as a conceptual foundation for redesign methodologies and constructions, we can conceptualise the findings in terms of sampling and translating.

'Sampling' here refers to the process of placing block pattern pieces on flat, disassembled garments in order to extract different forms. It can also include paying attention to specific details that might be useful or being guided by the placement of pattern blocks, which become the material pieces for a new design. It can also be described as a process of analysis that involves selecting a suitable garment-material for a predefined design goal or process.

In contrast, 'translating' is a process of carefully interpreting and translating a garment-material into another (different) design, while retaining a sense or the central aspect of the original garment-material, in a fundamentally different expression. For example, when a rain jacket is translated into a pair of trousers, the process performs a move from one place or condition to another. Typically, it also involves translating one set of known symbols into another, with no semantics or dictionary to follow. The design itself is the translation, which turns a garment-material into a new expression or another that is a new or alternative system of communication.



Figure 9. Sketches of the two conepts Samplling and Translating.

Bright pink
Hany seams
Breast pocket
Suit jacket collar
Soft
Slightly sructured
AG's
Bold
Softer interlining fabric
flamingo
Soft folds
Barbie
Girlboss



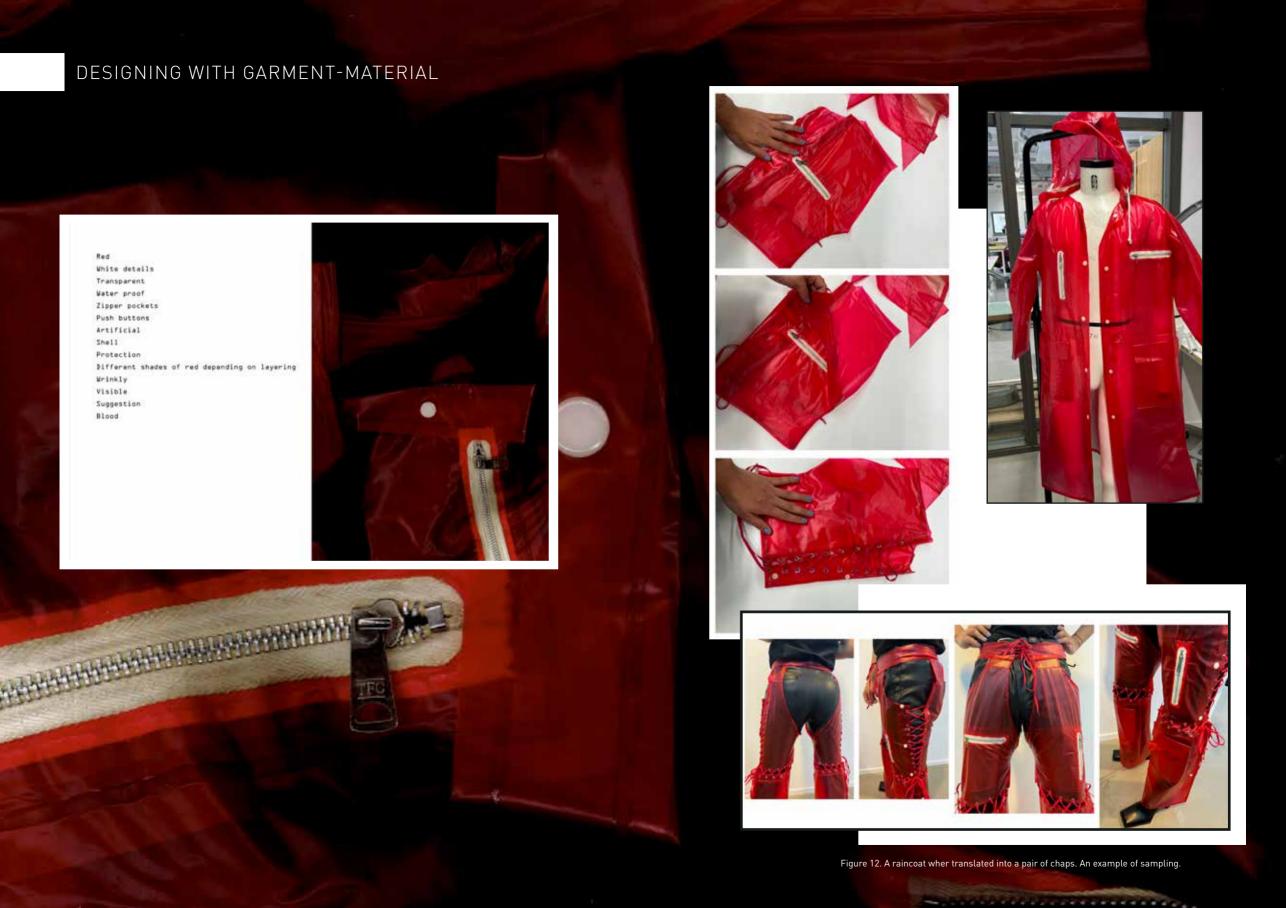






Figure 10. An example of **translating.** A suit jacket translated into a pair of trousers using the draping method.





In the previous workshops, the scanner, swatches and captions were used as 'new' and alternative tools to enable the participants to look beyond a particular garment's form, texture, details, and meanings in order to find new design possibilities. In combination with the swatches and captions, scissors – a more traditional tool that is also widely used to physically hack, test, and try things out with a material in terms of disassembly and reassembly – were used in this workshop. The intention was to explore another typical design tool in fashion and clothing design – sketching – and its potential and challenges with regard to exploring garments as materials. Some initial questions prior to the workshop were: Could sketching be a way to hack the material, without the need for scissors? Could sketching be a way to better understand and 'see' something more in garments as materials as compared to the swatches and captions? Is it possible to find alternative ways of sketching that can help the process of translating a garment-material into a new garment in ways that traditional approaches to sketching cannot?

6.1 Aim

The aim of this workshop was to explore and develop aspects of sketching in relation to redesign methods, and to identify the difficulties inherent in sketching with regard to redesign methods based on the concept of garments as materials.

6.2 Experimental Setup

Five garment-materials and accompanying descriptions were given to fifteen participants, who were first-year textile and fashion design Master's degree students. The materials were placed on a table for the students to look at and interact with. Three of the students chose to work with one swatch and caption, and two worked with series of swatches and captions. The students were given the following brief: "Here are materials and material descriptions. Try to sketch new garment designs that use these materials."

The students were divided into groups of three, but sketched individually, working on their own designs. The reason for dividing them into groups was to facilitate fruitful discussions on the topic of sketching. The results were presented on the floor for everyone to see during the second day of the workshop. The workshop duration was six hours, spread out over two days.

194 **Ⅰ**



Figur 13, shows the physical garment-material at hand for workshop #4

Figur 14, shows the swatches & captions of the same physical garment-material in workshop #4

6.3 Results

The outcomes, descriptions, and analyses of the workshops for all of the participantsare presented below. For each group, a selection is presented that aims to summarise their outcomes. This is accompanied by descriptions written by myself. The seminar was recorded and transcribed by the author; all of the quotations are the students'own words. Three of thestudents talked a great deal and had much to say, while the rest were fairly quiet. This is why the majority of the text and information is attributed to relatively fewparticipants.

GROUP 1

The students in this group worked in many different ways; as a team they were very systematic, and explored different aspects of the material, such as patterns, details, volume, and wearing the material on the body. Two of the students in the group reflected:

The way I see it and the outcome, it was a lot of patterns and I have a special sensibility to the pattern since I am into textile design. So, it's just a way of organising the pattern. (Student 1)



Figure 15. Group 1's material sketches, which involved draping on a dress stand and then making a sketch of that.









Figure 16. Group 1's material sketches, which involved draping on a chair and on a body. .

GROUP 2

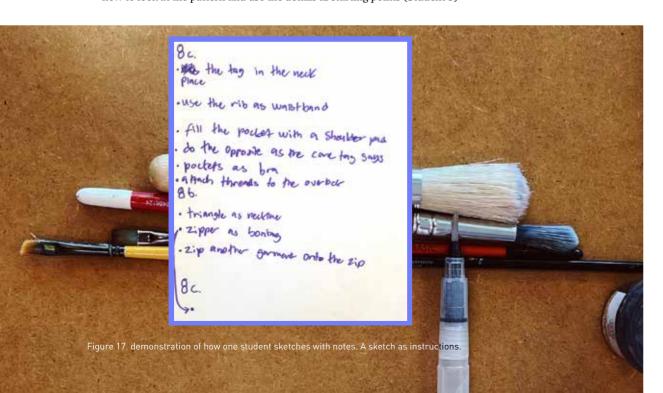
One student in this group reflected that working with pen and paper was difficult, especially with regards to remaking:

It was difficult to sketch with garments because normally we have second-hand garments that we sketch with and drape and make new patterns from... Normally I would drape on the body and take pictures as sketches, pictures as a method... So sketching with pen and paper is like a middle thing. (Student 4)

When working with this it's so hard to think realistically. Working with remaking, you have that specific material; you start to look at it and think 'what can I do with it?' But with sketching it's like stepping back, if I have to do this traditional sketching. (Student 4)

Another student had a completely different approach to sketching, and reflected:

sketch with notes, I don't sketch traditionally. That's why I wrote the notes, so when looking at the image it was easier for me to see the details and make something from that, which helped in some way... Sketching is a way of giving instructions... how to look at the pattern and use the details as starting points (Student 5)



GROUP 3

This group discussed sketching in relation to remaking and using garment-materials. One of the students had worked as a designer at a major fast-fashion company, and therefore was used to the conventional approach to designing by sketching garments and making technical drawings using software. The student reflected:

To go from garment to sketching to garment again, I felt it didn't really make sense! If you want to work with the garment you seek these limitations of the garment, and then when you move towards the sketch you take away what in my opinion is interesting – the limitations. (Student 7)

When you sketch fashion for a commercial company you start with the trends, colour boards, mood boards. They can be anything, it doesn't really matter. It's not actually a trend, no one is really inspired by it, it's just the way you have to do it. It sounds a bit depressing, but it just works like that. Trends like 'festival cowboy', 'urban jungle', they're all assigned to parts of the year. There is always like a Bohemian trend in the summer, a pastoral trend for Easter – it's already there and imaginary, it doesn't really exist. So when you draw something it actually means that the drawing has no limitation, which is for me very irritating because it can be anything... That's also why I don't see how sketching working from garment to garment and sketching in between makes any sense, because for me it's a way of going back to thinking in this way. (Student 7)

The conventional way of sketching involved "going back" when working with garment-materials. The student reflected on other possibilities when working with such materials:

I find all garments very inspiring, but not with the sketching phase in between. If I drape with it and place it differently on the body and maybe find a shoulder in a new way, and then make a pattern piece from it, and then design a new coat with it, I find that super inspiring. (Student 8)

A member of a different group added:

Maybe it's because we're so stuck in being realistic, or solving things? So maybe we are stuck with it being something real that has to result in something, so we can't think unrealistically but we have to do so... Even if I do it from an artistic perspective it's also about doing something with what is already there, because there is so much talk of solving a problem but doing it artistically. (Student 9)

GROUP 4

This group worked with different types of sketching, but also placed the material on a body and sketched using this. One of the members of the group was quite provoked by the task, and felt that it was particularly difficult:

That's because I'm not very into upcycling... The garments are already commercial, so the best use of them would be for them to stay in the commercial realm, which I don't like. That made the task really hard. (Student 10)

The same student reflected on the swatch and caption, arguing in relation to the scanned garments:

As a fashion designer you can see the original garment in there, and then there's a logical calculation in my head as to how much material there is, and it wouldn't actually be feasible. It leaves me with a question: is it just a new way of learning how to sketch, and a new way of sketching? Or is it actually meant to give ideas regarding what to do with, or create using, the garment? Because I also agree that draping with a material right away is much better, and perhaps sketching would work if the garment is taken apart because then it's more abstracted. When I was looking at the coat, I was just like 'coat coat coat, okay it's a coat, thick material', and I was already in this whole loop of what it was supposed to be. (Student 10)

The same student also reflected on the relationship between a two-dimensional sketch and the three-dimensional material:

In regards to this context, I cannot see how the sketch sufficiently applies to the raw material, because it's flat and it gives me no idea about the amount, which is important – with second-hand garments you need to know how much material you have. (Student 10)

I think it can be a really good starting point but I do think the relationship between garments and certain objects or the body is necessary. It was a really good start for me when the group decided to put it in context on a body and then sketch based on that. It's easier for me to imagine new garments, and it felt better to use the fabric to drape – that helped. (Student 10)

Another student from the group reflected on the body and material in relation to understanding proportions:

It was quite hard to sketch because normally I like to play with things like pockets and functional elements of garments, but I do so digitally and in a different way... When you put the garments on the stand you get an idea about the proportions in relation to the body, but it's hard to imagine something and then try to draw that. Personally, I can't draw abstractly – I need to see things. (Student 12)

I really like fashion and am focused on form, so didn't mind working with the pictures. Even if I had actual garments in mind, it is a garment you can't really detach... Even if I have good visual imagination, I still like need to reproduce what I am imagining. But I don't think that it's a bad thing necessarily – it just works differently for different people. (Student 12)

GROUP 5

One of the members of this group had an art-school background and was used to sketching and painting in a variety of media. This student focused on using the images and captions as inspiration with which to associate and draw 'new' designs using other types of materials:

I was looking at the details on the labels, which have graphic elements. Lines dominate the drawing, accentuating the impression even more. I also looked at the keywords and thought about what they reminded me of – I think it was something along the lines of an ice-cream cone because of the cone shape. This made me think of a nice cream colour, so I wanted to bring in some other colours, like pink. (Student 14)

Art school is a background that you cannot get away from, and I've been building on it for a long time. When you are going into an academic context you're forced to think about lines and what they are doing – you cannot discard or forget the context, but I really tried not to place any restrictions on myself. I left the mistakes when things were imperfect. I didn't use the eraser, I just left it as it was! (Student 14)

forced to think about lines and what they are doing – you cannot discard or forget the context, but I really tried not to place any restrictions on myself. I left the mistakes when things were imperfect. I didn't use the eraser, I just left it as it was! (Student 14)

Lines can help to catch a movement. When I looked at the images, I tried to reimagine things. If I only looked at the square material, I tried to understand how it felt in a different context, so it became lightweight. (Student 14)

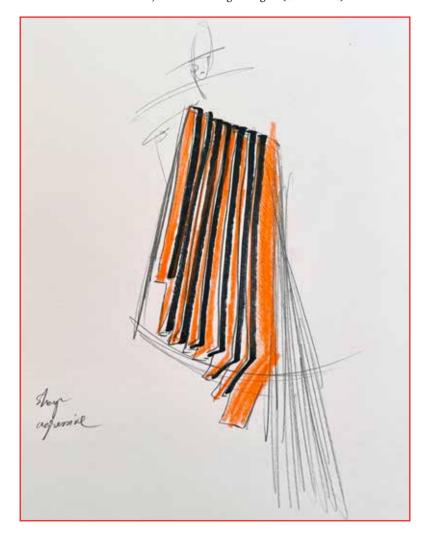


Figure 18. Material sketches, based on selecting one garment and sketching based on the existing, without first doing any physical styling etc. (Student 14, group 5).



Lines can help to catch a movement. When I looked at the images, I tried to reimagine things. If I only looked at the square material, I tried to understand how it felt in a different context, so it became lightweight. (Student 14)



6.4 Conclusions

The aim of this workshop was to explore traditional sketching techniques as methods for designing and redesigning using garment-materials. Sketching is a conventional design tool and method in fashion and clothing design, and so it was interesting to explore opportunities and alternative aspects in terms of the development of redesign possibilities and methods based on garments as materials. Another aim of the workshop was to explore and identify the difficulties of sketching as a method of developing designs using garments as materials, in terms of both the actual practice of sketching and the thinking connected to sketching.

It should be noted that there are several ways to sketch, and the sketch itself can have very different purposes. For example, a technical drawing created using software may be intended to present an instruction for constructing and realising a garment design, while a fashion sketch or illustration may be used to explore and suggest conceptual content, ideas, and ways of thinking prior to more concrete design development. However, what sketching often comes down to is exploring and providing perspectives on garments, silhouettes, and expressions in relation to the body and wearability. This can often be achieved using a particular sketching method, or conceived of through the kind of thinking that is connected to the method.

One general conclusion that can be drawn based on the analysis of the results is that the students had great difficulty rethinking and redesigning garment-materials using pen and paper. Many of the students considered sketching to be a 'backwards' way of working as it aims to conceive of something that has already been conceived and realised in the garment as a material, and struggled to understand the purpose of working with sketching in relation to garment-materials.

It was quite hard to sketch because normally I like to play with things like pockets and functional elements of garments, but I do so digitally and in a different way... (Student 10, Group 4)

When working with this it's so hard to think realistically. Working with remaking, you have that specific material; you start to look at it and think 'what can I do with it?' But with sketching it's like stepping back, if I have to do this traditional sketching. (Student 4, Group 2)

It was difficult to sketch with garments because normally we have second-hand garments that we sketch with and drape and make new patterns from... Normally I would drape on the body and take pictures as sketches, pictures as a method... So sketching with paper and a pen is like a middle thing. (Student 4, Group 2)

To go from garment to sketching to garment again, I felt it didn't really make sense! If you want to work with the garment you seek these limitations of the garment, and then when you move towards the sketch you take away what in my opinion is interesting – the limitations. (Student 7, Group 3)

A student in Group 4 also reflected on the relationship between two-dimensional sketches and three-dimensional materials:

In regards to this context, I cannot see how the sketch sufficiently applies to the raw material, because it's flat and it gives me no idea about the amount, which is important – with second-hand garments you need to know how much material you have. (Student 12, Group 4)

One of the students, who had worked as a designer at a major fast-fashion company, was critical, and had many thoughts regarding the pros and cons of sketching and why it does not work from a redesign perspective:

When you sketch fashion for a commercial company you start with the trends, colour boards, mood boards. They can be anything, it doesn't really matter. It's not actually a trend, no one is really inspired by it, it's just the way you have to have it. It sounds a bit depressing, but it just works like that. Trends like 'festival cowboy', 'urban jungle', they're all placed in the year. There is always like a Bohemian trend in the summer, a pastoral trend for Easter – it's already there and imaginary, it doesn't really exist. So when you draw something it actually means that the drawing has no limitation, which is for me very irritating because it can be anything... That's also why I don't see how sketching working from garment to garment and sketching in between makes any sense, because for me it's a way of going back to thinking in this way. (Student 7, Group 3)

Another student, who was a member of Group 4, said the following in relation to working with digital and analogue sketching:

It was quite hard to sketch because normally I like to play with things like pockets and

functional elements of garments, but I do so digitally and in a different way... When you put the garments on the stand you get an idea about the proportions in relation to the body, but it's hard to imagine something and then try to draw that. Personally, I can't draw abstractly – I need to see things. (Student 12, Group 4)

This idea of putting material on a stand led to another reflection on the students' ways of working; they all, sooner or later, ended up draping and styling the garments on a stand, each other's bodies, or another three-dimensional object to explore volume and patterns and come up with ideas for new designs. After draping and styling the garments, the student made sketches to represent the physical experiments. One student recalled:

I think it can be a really good starting point but I do think the relationship between garments and certain objects or the body is necessary. It was a really good start for me when the group decided to put it in context on a body and then sketch from that. It's easier for me to imagine new garments, and it felt better to use the fabric to drape – that helped. (Student 10, Group 4)

With regard to swatches and captions as starting points when sketching and as a way to escape preconceived notions of garments, one student recalled:

As a fashion designer you can see the original garment in there, and then there's a logical calculation in my head as to how much material there is, and it wouldn't actually be feasible. It leaves me with a question: is it just a new way of learning how to sketch, and a new way of sketching? Or is it actually meant to give ideas regarding what to do with, or create using, the garment? Because I also agree that draping with a material right away is much better, and perhaps sketching would work if the garment is taken apart because then it's more abstracted. When I was looking at the coat, I was just like 'coat coat coat coat, okay it's a coat, thick material', and I was already in this whole loop of what it was supposed to be. (Student 10, Group 4)

A student with an art-school background approached the swatches and captions as follows:

I was looking at the details on the labels, which have graphic elements. Lines dominate the drawing, accentuating the impression even more. I also looked at the keywords and thought about what they reminded me of – I think it was

something along the lines of an ice-cream cone because of the cone shape. I wanted to bring in some other colours, like pink. [...] When I looked at the images, I tried to reimagine things. If I only looked at the square material, I tried to understand how it felt in a different context, so it became lightweight. (Student (Student 14, Group 5)

An entirely different way of approaching sketching was to write instructions, instead of making drawings:

I sketch with notes, I don't sketch traditionally. That's why I wrote the notes, so when looking at the image it was easier for me to see the details and make something from that, which helped in some way... Sketching is a way of giving instructions... how to look at the pattern and use the details as starting points. (Student 14, Group 5)

A last reflection is that the textile design students appeared be freer in the way they viewed the garments:

The way I see it and the outcome, it was a lot of patterns and I have a special sensibility to the pattern since I am into textile design. So, it's just a way of organising the pattern. (Student 1, Group 1)

I don't see it as a coat either; I see it as an object. (Student 2, Group 1)

In conclusion, almost all of the students tried to avoid sketching using traditional media and instead draped on a stand or body, taking pictures, making marks, and drawing lines and possible structures on the draped material as an alternative way of sketching. This appeared to be almost the only way for them to understand and explore the garments as materials. As one of the students in Group 4 suggested, if the garments had been disassembled into pieces and abstracted from their original garment form, they would have been possible, or at least easier, to sketch with.

The problem was perhaps best explained by one of the students from Group 2, who stated that "drawing can be anything – one can make up and imagine whatever". This "anything" or "whatever" can then in the next phase be made of any type of fabric, with the right type of structure and skills. However, this mindset does not work when sketching with garments as materials, because garments have clear limitations, and cannot be anything or be imagined to be whatever: a garment-material is already realised as a design. For some of the participants this seemed not just difficult but even frightening and blocked their thinking, and was the reason one of the students

sketched using notes and captions, as a way to open up the given garment-material. Another reflection is that abstracting and reformatting three-dimensional material using sketching seems to make use of one's previous experience of three-dimensional garment construction, and the sketches created generally seem to be 'print-outs' of what one already knows and is able to visualise within one's own mind, disconnected from the garment-material at hand.

In relation to design processes using garment-materials, the process of sketching as ideation is not about freedom and the idea that something could be *anything' – rather, it is about understanding some sort of reality or existence, about "realisation". Thus, a key question seems to be: which sketching techniques can be used in the search for new forms of body-garment relationship, rather than showing and representing design ideas? What can we learn from lines and structures together with draping for sketching when using garments as materials?



7.MAPPING

This chapter explores mapping, a design method with the potential to open up garment forms and transforming them from being determined, complete, and fixed garments - into being flexible garment materials for use in the creation of new and alternative designs. By opening up the garments through cutting, the method aims to build on and use of design potential of the expressive richness of existing garment elements, such as textures, seams, cuts, graphical aspects, trims, collars, pockets etc. The conceptual foundation of the method is based on the findings in previous explorations in workshop #1 #2, #3, and #4 (chaper 2, 4, 5 and 6)

The aim of the experiments presented in this chapter was to deepen the methodological foundations of the mapping method by exploring different methods of cutting and mapping, based on the below - a range of garment types, as well as combining multiple garment types. The examples that were created were intended to demonstrate the design potential of the method and the experiments was carried out through the gradual exploration of the garment as a material, cut by cut and line by line, to explore and demonstrate the steps of the method as well as its potential.

7.1 CUT, FOLD, MAP

A basic principle of the mapping method is cutting and folding in order to 'map out' a garment as a material, creating a new material geography while retaining the characteristics of the garment which were initially of interest. To demonstrate this principle in a simplified way, a plain-coloured garment in the form of a shirt with relatively few and simple details and no expressive print or other major feature was selected. A pair of plain trousers with more distinct expressive material qualities in the form of parallel graphical lines was also selected. The trousers were a similar colour to the shirt, but had more details and were, of course, intended for the lower part of the body. The pair of trousers was selected to explore how the mapping method could work for other types of garments, than the shirt initially explored. Finally, three sweaters were used to demonstrate the differences by mapping out the same garment-form three times so as to create three similar garment-materials.

The cuts that were made in the materials were digitally marked out afterwards, using different colours. When the garments were shown on a dress stand the coloured lines were visible, clearly showing the directions of the cuts in a three-dimensional context.

The dress stand was photographed from four different angles (front, sides, and back) to show the overall resultIt. It should be noted that the examples created during this series were not intended to be complete, ready-to-wear garments. The point of the examples was to demonstrate new principal topologies based on the new-found geographies of garment-materials. This was undertaken in order to demonstrate the flexibility and potential of cutting up garment materials in different ways as a method of exploring the basic principles of the mapping method.

EXAMPLE 1

This shirt was mapped out using two cuts, which were carefully placed and ignored the seam lines as directions. When laid out the shirt had a flexible form akin to that of a butterfly, but the characteristics that made it a shirt remained intact. The material was flexible as it had an opening at the front in the centre, in a way adding a third line to the geography of the garment. Another significant aspect was that the garment-material consisted of one piece, enabling a larger number of design possibilities through e.g. draping. The cuts opened up for new designs by re-joining and unfolding the shirt as a material, as enabled by the mapping process. The red line shows the first cut, and the yellow line the second.



Figure 20. A shirt into which a cut was made that followed the material topology in a way that retained the sleeve (still attached to the back piece). The cut started from the hem fold and traced a wavy line up to the sleeve cuff.



Figure 21. The shirt was flattened out based on the cut, revealing a new potential garment geography.



Figure 22. The shirt with its front facing up. A second cut was made following the material topology of the front, from a button on the front button placket in the centre to the sleeve cuff.



Figure 23. The shirt when flattened out, revealing an alternative garment geography based on the two cuts.



Figure 24. The alternative garment geography, mapped out and reconstructed on a dress stand in five different ways. Initial exploration for novel form and design potential.

EXAMPLE 2

The trousers were also mapped out using two cuts, again marked in different colours. The resulting geography of the garment-material was then explored in three ways on the dress stand. Due to the expression of this material being richer than that of the shirt, the design potential of the trousers was felt to be more complex: there was more information to map out through sketching and cutting. However, this was also related to the amount of fabric, in that the pair of trousers consisted of more material than the shirt. The red line shows the first cut, and the yellow line the second.



Figure 25. The trousers, with a straight cut through one layer of the leg following a topological structure.



Figure 26. The trousers when flattened out based on the cut, revealing the first new potential garment geography.



Figure 27. The trousers with the leg that had been flattened out in Fig. 7 folded up again. A cut was made in the other leg from the lower hem across the centre back and up to the drawstring lining, following the topology of the back of the trousers.



Figure 28. The trousers when flattened out, revealing the alternative garment geography based on the two cut. The red line shows the first cut, and the yellow line the second.



Figure 29. The alternative garment geography, mapped out and reconstructed on a dress stand and photographed from different angles. The cuts marked with coloured lines show how the mapped material behaved.



Figure 30. The alternative garment geography, mapped out and reconstructed on a dress stand in a second way and photographed from different angles. The cuts marked with coloured lines show how the mapped material behaved. ???



Figure 31. The alternative garment geography, mapped out and reconstructed on a dress stand in a third way and photographed from different angles. The cuts marked with coloured lines show how the mapped material behaved.

EXAMPLE 3

The third example consisted of three different sweaters, which were chosen with the intention to demonstrate the differences and similarities when mapping in relation to diverse expressive variables but using the same garment-form.

The sweaters where all mapped out in the same way, and so it was interesting to see what the cut ignored and preserved, independent of the expressions of each garment. The cuts where, as previously marked out digitally afterwards with different colours. The blue line shows the first cut, and the yellow line the second.

The sweaters series had a butterfly-like form, where the garment-materials remained in one piece. When the sweaters were placed three-dimensionally on a dress stand, an armhole could become an interesting waistline, a sleeve could be transformed into a vertical pattern piece at the front and be horizontally wrapped around to form a skirt ofsorts, and so on. Therefore, this type of 'butterfly-like' mapping provided a great deal of garment-material and design potential with simple cuts that diverged from those of the original garments.

The examples show that the cuts and their placement – i.e. the way the garment as a material was mapped – were based on topological qualities, and informed varying degrees of flexibility of the expression's flexibility achieved within the material.



Figure 32. The first sweaters mapped out using two curved cuts at the front and back, from the sleeve ribbing across the armpit to the hem ribbing. The same type of cut was made at the front and the back. The blue line shows the first cut, and the yellow line the second.



Figure 33. The alternative garment geography based on the two cuts that had been mapped out and reconstructed and placed on a dress stand. The cut lines are shown to provide a clearer idea of the potential of the mapped geography.

220 📗



Figure 34 . A sweater that was made up of three materials; it was flattened out and mapped out with the same type of cut as those used in the sweater shown in Figure x?, presenting an alternative garment geography based on the two cuts.



Figure 35. The alternative garment geography based on the two cuts that had been mapped out and reconstructed and placed on a dress stand. Presenting an alternative garment geography based on the two cuts.



Figure 36. (previous page) A sweater that was made up of three materials; it was flattened out and mapped out with the same type of cut as those used in the sweater shown in Figure 14, presenting an alternative garment geography based on the two cuts.



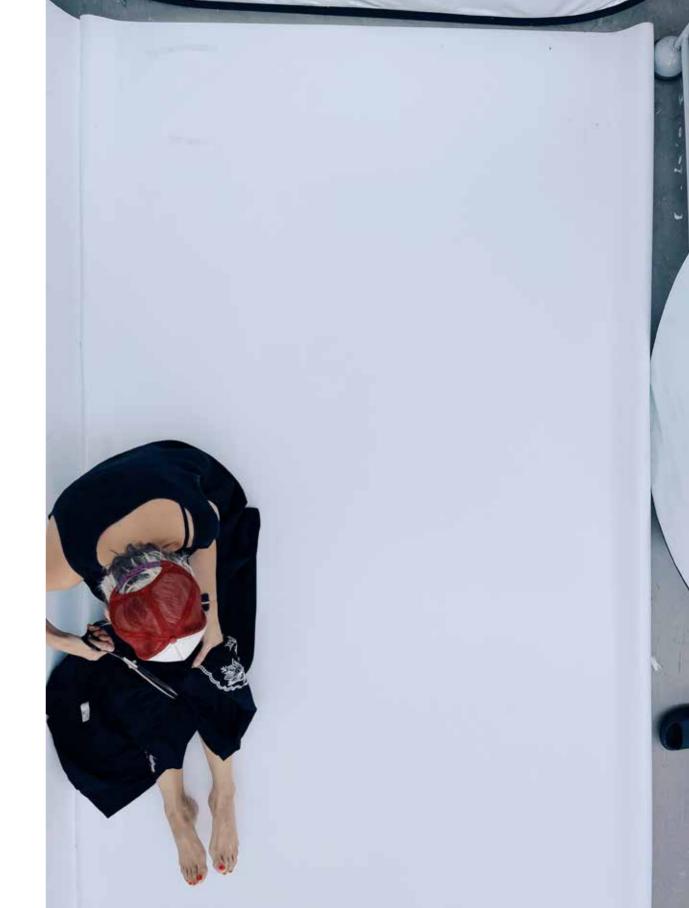
Figure 37. The alternative garment geography based on the two cuts that had been mapped out and reconstructed and placed on a dress stand. Presenting an alternative garment geography based on the two cuts.

7.2 MAPPING-GFOGRAPHY-REDESIGN

A key point in the process of cutting and folding to map out new garment geographies was making 'fixed' garment forms into 'flexible' garment-materials, without removing the significant material features and details. The different methods of cutting and folding can therefore be understood to constitute one approach or methodology. Mapping garment in this way opens up for new design directions and dimensions and gives the original forms of garment-materials the opportunity to expand, contract, fold, and flex in ways that were previously not possible. The foundation of the method has been presented in the preceding paragraphs. However, in order to more thoroughly demonstrate the potential of mapping, a larger set of demonstrative examples that included more variables was created.

A first selection of ordinary, generic garments was made based on the aim of testing and demonstrating the method using a set of garments that could be representative of everyday ones – typical, taken-for-granted ones that are perhaps not thought about as having much redesign potential in terms of expressive qualities. The intention with the selection was for the achieved expressions to be accessible and easy to follow or repeat. Furthermore, such redesign materials are commonly found in textile-sorting facilities, used by traditional fashion companies, and part of consumer wardrobes. The selection was based on garment types such as chinos, skirts, shirts, sweaters, blazers, and jeans, and the materials constituted a generic set of demonstrative examples for the mapping method which arguably became infused with multiple potentials.

A second selection was undertaken, which focused on special, non-generic garments for testing and demonstrating the potential of the method; the materials were more diverse, individual, and had a greater variety of expressions, representing more elaborate garments that, in contrast to the first generic selection, may have had less redesign potential leaving aside already-established design directions. The selection of this group of materials focused on representation of different styles, design directions, genres, and similar, and included placed/all-over prints, band/tourist/fan-t-shirts, party tops/dresses, ball gowns, and animal-print sweaters. The garments also included examples of certain style categories, including sporty, kitschy, party, punk etc.



7.3 MAPPING INDIVIDUAL GENERIC GARMENTS

Cutting in garments mapping them out, what does that mean? Let us take a selection of ordinary, everyday, generic garments as a starting point. Start simple and develop from there, one garment at the time.

One of the initial reflections was that there was a hesitation to cut into them using the scissors. This may have been because the generic garments were more basic in terms of form and so more challenging to understand as garment-materials than as garment-forms – the form was more obvious, or in some cases taken for granted. Cutting into such garments felt like attacking a piece of white paper, rather than working with a coloured piece of clay; there was not much to react to or take a stand against, although in some cases the opposite was true, in that the possibilities were seemingly endless and thus overwhelming.

Moreover, it is unlikely that a designer would think about them as being obsolete, and relatively likely that they would be conceptualized as 'classic' and fitting in several design directions. From another perspective, however, a generic garment may be more of a blank canvas and therefore more difficult to engage with when working with mapping as design method.

On the other hand, there were often small but significant expressional properties that had clear topological impacts and presented small but significant possibilities for new geographies – an elbow patch, a pocket, or an interesting seam, for example – by functioning as central structures. It was also possible to make one small, careful cut and create a bold, impressive expression.

Another simple but important consideration was that the starting point for the mapping process was often the bottom of the garment, be that a hem, ribbing, or opening. This was often simply because that was what was facing me. Therefore, it was important that the garments were also turned over or tilted to vary the starting points.

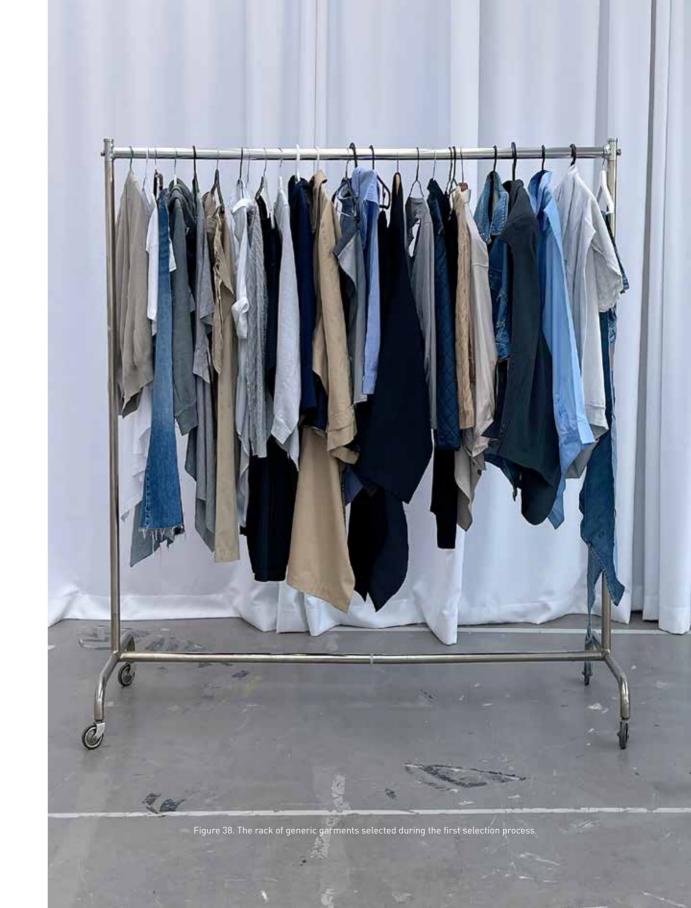




Figure 39. This garment was mapped out and cut open by making a curving cut from one sleeve to the other at the front. The material was then flattened and folded in different ways to explore the form.

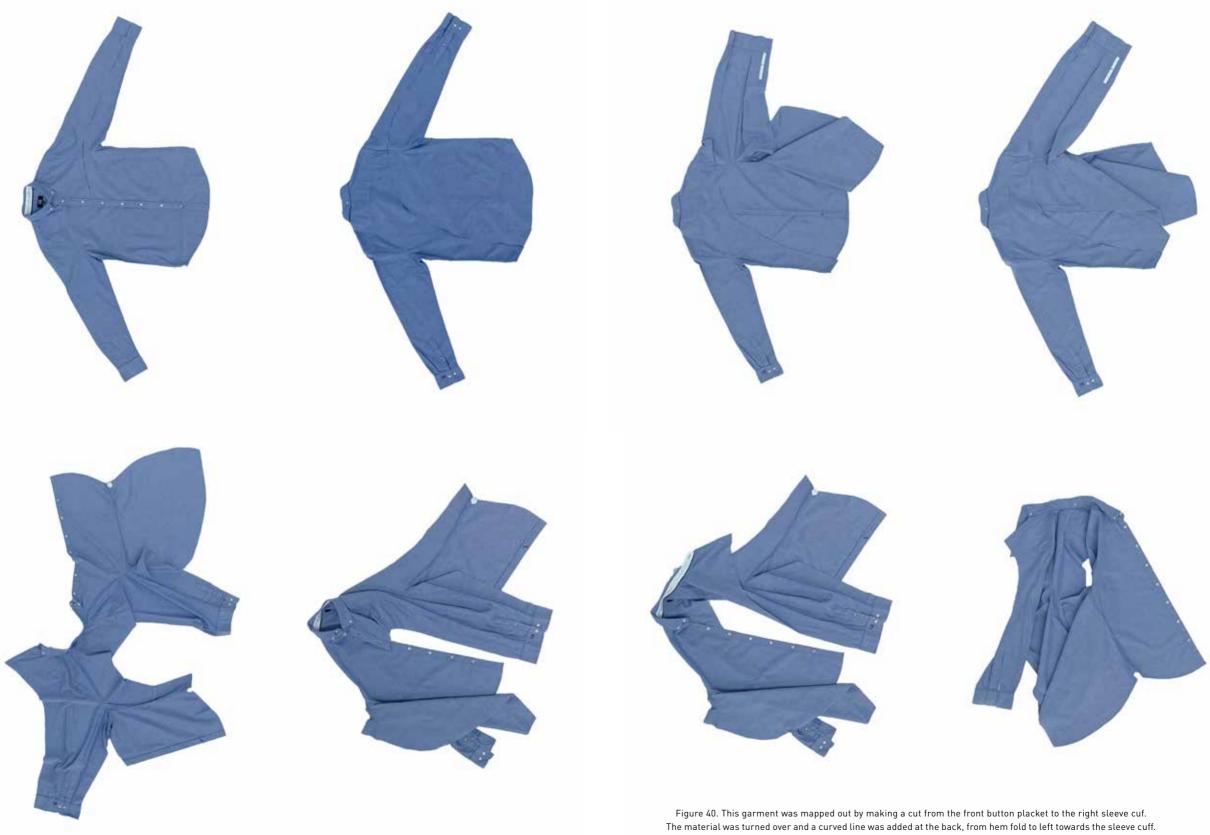


















Figure 41. This garment was mapped out by cutting one side seam open. The material was unfolded, the back zipper and slits being opened. The shoulder straps were cut and the material was then flattened out.



Figure 42. This garment was mapped out with a sharp and fairly short 90-degree cut on one leg. The material was then turned over and a longitudinal cut was made in the other leg, from the bottom to the top. The material was then turned over once more and a cut was made at the back, originating from the previous 90-degree cut, splitting the back pocket and opening up the lining. The material was then unfolded in different ways.





Figure 43. The mapped out material, last step of this denim exploration, placed in two different ways







Figure 44. This garment was mapped out by making a straight cut from the hem to two thirds of the way up the material. A sharp horizontal cut was made in the side seam, and the material was opened and turned over. A straight cut was made from the bottom up through the lining, and the material was then flattened out.









Figure 45. This garment was mapped out by cutting the centre seam at the back open from the bottom to 15 centimetres below the collar, neck drop back. Cuts were then made to and along both arms, all the way to the cuffs.







Figure 47. This garment was mapped out by making a curved line at the front, from the hem fold to the left sleeve. The material was turned over and the same type of cut was repeated at the back. Flattened out.











Figure 48. This garment was mapped out by making a sharp cut from the hem to two thirds of the way up the material (to chest-height). A sharp corner cut was then made into the sleeve.



made to the centre seam at the back, and a straight cut was then made alongside the centre seam at the back, all the way to the waistband.





Figure 50. This garment was mapped out and cut open following the cable pattern at the front, near each side seam, starting from the bottom hem, passing the armhole seams, and ending at the sleeve cuff. The garment was then unfolded, and the same procedure was repeated for the left side. The garment was then unfolded again.











Figure 51. This garment was mapped out starting with a longitudinal straight cut from the top to the bottom in the centre of one leg. The garment was then turned over and a new cut was made in the centre of the other trouser leg, this time from the bottom upwards.

















 $Figure \ 52. The \ material \ was \ unfolded \ and \ re-folded \ several \ times \ to \ explore \ expressions \ with \ the \ inside/out-side.$



Figure 53. This garment was mapped out with a cut from the bottom-left of the garment all the way to the right sleeve. The material was then turned over and the same cut was made on the back.



Figure 54. This garment was mapped out by placing a straight cut in the centre at the back, starting from the hem fold and ending at the yoke. Two horizontal cuts were then made, one to the left and one to the right along the yoke seam. Both cuts ended at each armpit seam. The garment was then flattened out.





Figure 55. Mapped out by a vertical cut from sleeve hem to sleeve hem. Flattened out.









Figure 56. This garment was mapped out by making a semi-diagonal cut through the shoulder seam, which meant that it was longer at the front than the back.



Figure 57. This garment was mapped out by making a vertical cut in the centre at the back, from the hem all the way up to the neckline. The cut continued at the centre of the hood's back seam, all the way to the front. The material was then turned over and a straight cut was made from one sleeve cuff to the other.



Figure 58. This garment was mapped out following the two back seams. A cut was then made along the sleeve seams.Flattenedout in different ways with buttons both opened and closed.





Figure 59. This garment was mapped out by making a single, curving cut, starting from the bottom-left hem at the front and ending to the right, two thirds of the way up the skirt. Both the shell fabric and lining were cut.













Figure 60. This garment was mapped out by making a curved cut from one cuff to the other.





Figure 61. This garment was mapped out by making a cut in each sleeve seam, from the cuff to around the elbow patch all the way to the armhole seam. The garment was then unfolded, turned over, and cuts were made in both side seams. The garment was then unfolded again.





Figure 62. This garment was mapped out by cutting the centre seam at the front from the neckline to the waistline, then following the waist to each side seam. The garment was then unfolded and, starting from the hem, a flower shape was cut to open up the material following the lace pattern. The material

264 was then flattened out.

7.4 COMBINING GENERIC GARMENTS

Combining the mapped materials opened up for alternative ways of mapping. The expressions of the generic garment-materials entered into dialogues in slightly different languages in terms of their differing topological lines and details. The combinations resulted in vibrant and eclectic yet subtle expressions, wherein differences were harmonised to an extent. Subtle details of the expressions seemed to be enriched by one another when the materials were moved on top of, under, inside, or next to each other and composed in new ways.

An interesting result of the combining of the generic garment-materials that had been mapped out, occurred when they were folded in different ways. The folding of the single-coloured mapped materials also enabled new graphical patterns to form in the manner of elementary geometric components, creating "something from nothing". This was visually interesting because the folds created a sense of depth when the inside of one garment and outside of another were layered to create new topologies, and resulted in a depth in expression through the combination of different perspectives from the same origin. Another perspective on mapped materials combined was that new silhouettes where created, as well as a sense of composition on a potential body.



266 Figure 63. A skirt & T-shirt combined.















Figure 64. Trench coat & dres.

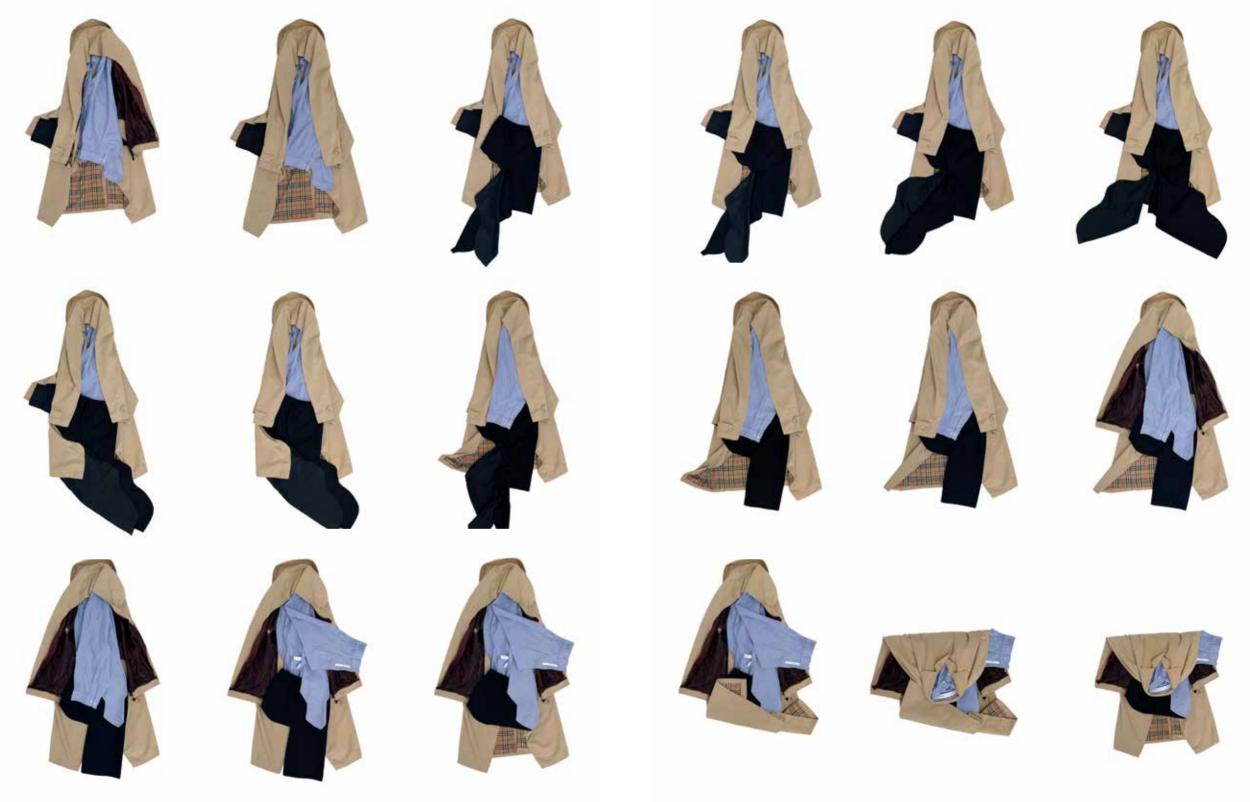
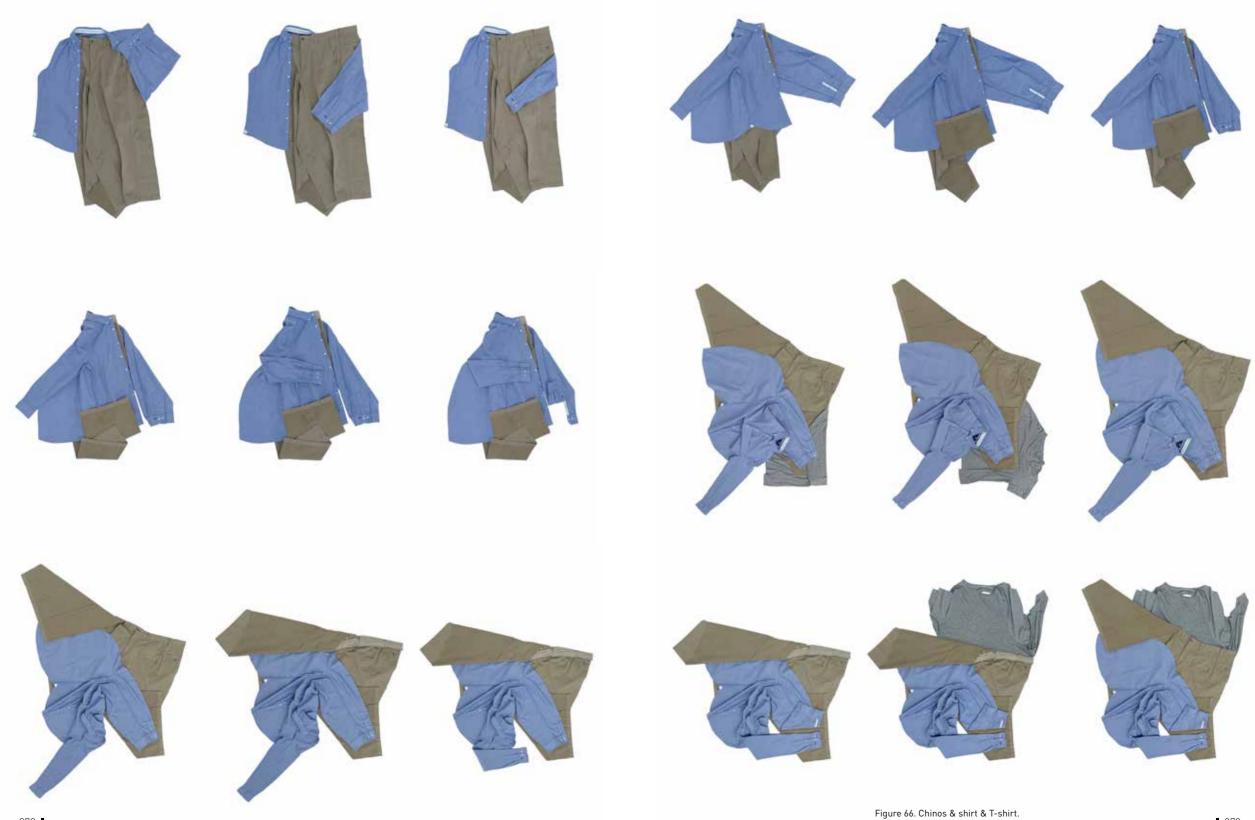


Figure 65. Trench coat & shirt & skirt.



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Figure 67. T-shirt & chinos.

Figure 68. Suit trousers & cable knitted jumper.

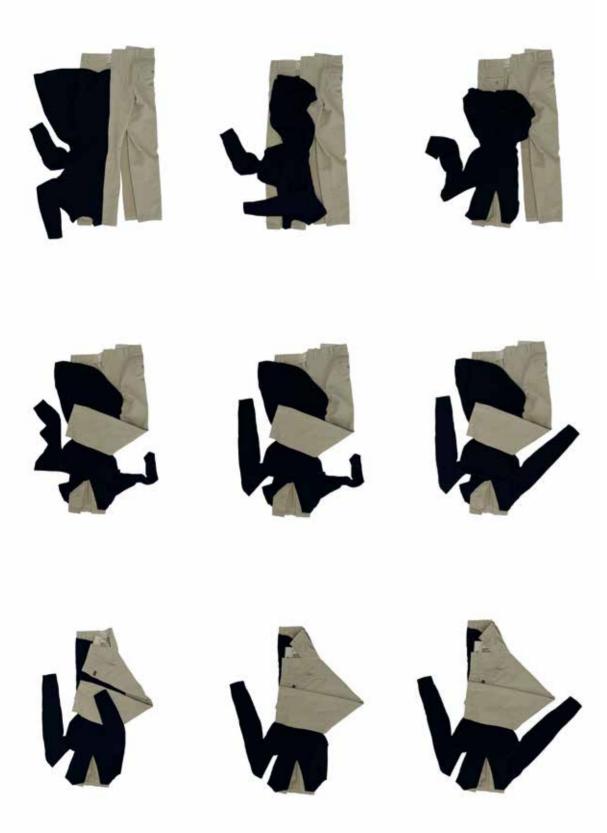










Figure 69. Chinos & dress (figure x & x)





Figure 70. Skirt & sweatshirt & blouse.

7.5 MAPPING INDIVIDUAL, SPECIAL, NON-GENERIC AND GENERIC GARMETS

Now, in the same way as in preceding paragraphs, let us explore how to compose and combine a selection of the individual, special, non-generic mapped out materials, with a flavour of generic materials elements added to the mix.

As before, there were interesting conversations between differences and similarities within the materials when they were moved on top of, under, inside, or next to each other and composed in new ways. Almost like mixing multiple textile 'personalities' – even and uneven, balanced, and imbalanced, improvised, and organised, eclectic, and homogeneous – and seems to have resulted in them reflecting each other based on their combined repetition of difference.

The differences between individual garment-materials meant that it was easier to map them: the expression of a printed dress could be enhanced by a more basic garment that had been folded, as together the two created a more complex geography. This meant that the expression of one garment-material could be reflected in another, continuing in a dynamic dance akin to choreography.

However, there also occurred fruitful combinations of generic and non-generic garment-materials, wherein mapped-out generic materials often functioned as 'glue' that held together the non-generic ones – sometimes as a centre point, sometimes as a frame. The generic garment-materials functioned to tie up loose expressive ends, and the variety of variables of each category of material were resolved together within new, mapped-out material geographies.

Another, more practical note relates to scale: Some of the special garments were relatively large, enabling more things to be placed on top of them. This was interesting as the base 'calmed' the rest, just as the rest added to the base, which was so basic that it was perceived as essentially being a roll of fabric.





Figure 72. This garment was mapped out by cutting two wavy lines starting at the hem fold, crossing the side seams, and ending at the armpit, acknowledging both the form and print of the garment.













Figure 73. This garment was mapped out by cutting out a semicircle between the left side of the neckline and the left side of the hem fold. Flattened out.

















Figure 74. This garment was mapped out by cutting a horizontal line at hip level across the side seam two thirds of the way to the front, then stopping near the other side seam; from there, a vertical cut was made down to the hem fold. The material was then flattened out.



Figure 75. This garment was mapped out by cutting along the back seam of the sleeve, starting from the left and moving across the back of the jacket, then down to the lower hem, opening it up at the hip.









Figure 76. Another cut was then made along the back seam of the right sleeve, all the way across the neckline and up onto the hood, ending at the front drawstring hem fold.



Figure 77. This garment was mapped out by cutting along the sides of some of the coloured patches.

Then flattened out with buttons closed or opened.







Figure 78. This garment was mapped out by cutting two straight lines that both split up the neckline; one from the skirt hem, and one from the sleeve hem. The material was then turned over and flattened out.





Figure 79. This garment was mapped out by making a wavy cut between the dots, starting from the middle of the left side seam and ending at the neckline on the left. The material was turned over and a continuation of the



Figure 80. This garment was mapped out by making a curving cut starting at the ribbing at the left side of the front zipper and ending at the left sleeve ribbing. The material was turned over and a cut was made at the back of the other sleeve, starting from the ribbing and ending at the right side of the bottom hem

Figure 81. This garment was mapped out by randomly folding the whole garment. A cut was made following one of the lines on the left created by the folding. The material was then unfolded. A new fold was made to the right, and a cut was made along the line of that fold. The material was then unfolded and arranged in a number of ways.

294 🛮



Figure 82. This garment was mapped out by by making a cut from one side seam to the other of one of the legs, changing the overall character of the garment. Two cuts were made from waste line all the way down to the crutch. Then flattened out.



snakeskin print which ended near the back pockets. A cut was then made along the edge, around the lower corner, and all the way up the inner corners of both pockets. A horizontal cut was then made all the way to the back seam, and from there a vertical cut was made up to the waistline.

Figure 85. This garment was mapped out by making a cut from the hem fold on the right, following the line of the garment up, around the neck, across the shoulder and sleeve, and back around to the hem fold on the left. Garment split i two parts. Flattened out.





Figure 86. This garment was mapped out by randomly folding the whole garment. A cut was made in the front of the folded left leg, opening it. The material was then unfolded and turned over.

A new fold was made in the other leg, which was cut open. The leg was turned over, and the material was flattened out and arranged in different ways.

300 ▮





Figure 87. This garment was mapped out by making a cut on the right shoulder. A straight cut was then made down to the waist seam. Another cut was made following the waistline to the other side, stopping a few centimetres before the side seam. A vertical cut was then made downwards in the pleated section, stopping two thirds of the way down and then turning 90 degrees to the right. The material was then turned over and a new cut was added to the other side of the dress, stopping 15 centimetres before the side seam then making a 90-degrees turn and continuing down, all the way to the side seam.

The material was then turned over and flattened out.

The material was then turned over and flattened out.



Figure 88. This garment was mapped out by cutting along the side seams and around the pocket. Same thing repeated on both sides. then falttened out.

Figure 89. This garment was mapped out by making a cut from the front button placket at the centre to the right sleeve cuff. The material was then turned over and a curved line was cut at the back, from the hem fold to the left sleeve cuff.

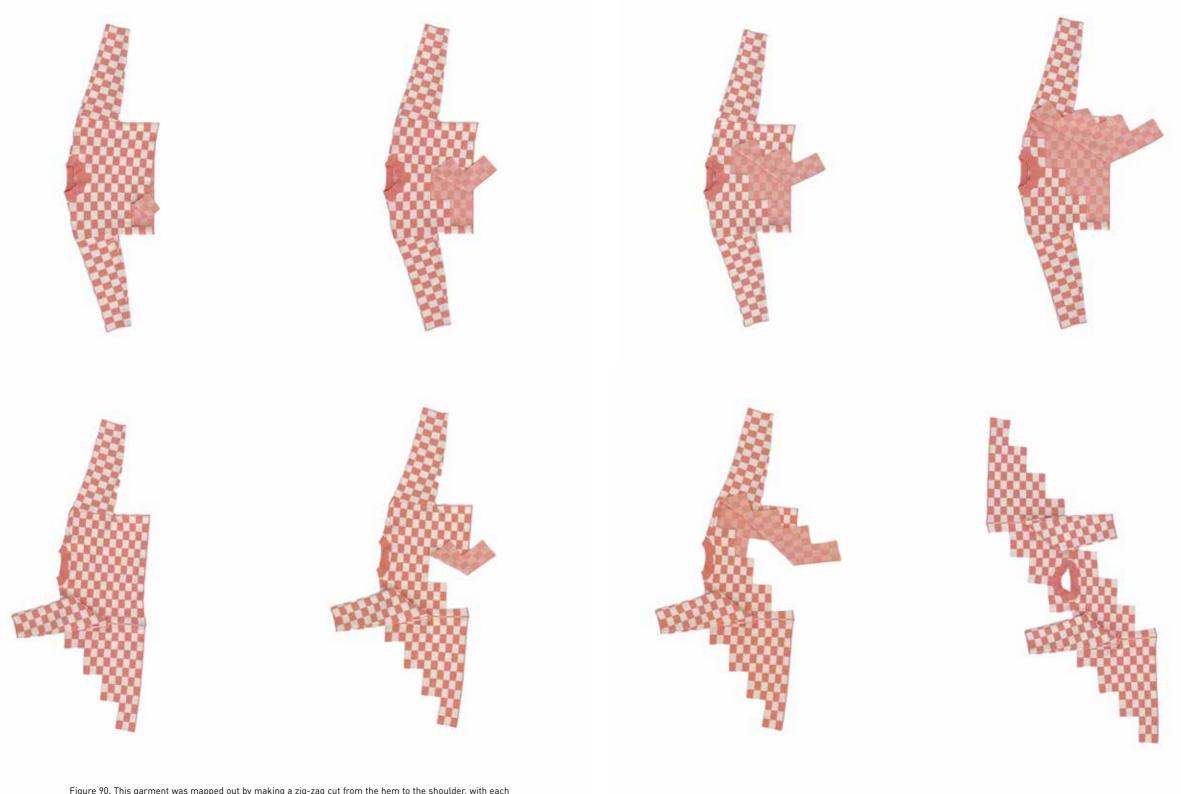


Figure 90. This garment was mapped out by making a zig-zag cut from the hem to the shoulder, with each 'step' consisting of three squares of the pattern. The material was then turned over and the process was repeated on the back, after which the material was flattened out.



Figure 91. This garment was mapped out by making a semi-circular cut that partly followed the neckline ribbing and continued across the front hem. The material was then flattened out.











Figure 92. This garment was mapped out by making cuts in the centre of the back, from the collar down to the waist and turning 90 degrees to move to each seam at the back.Flattened out.











Figure 93. This garment was mapped out by making two wavy cuts in the flower pattern. WThen flattened out.













Figure 95. This garment was mapped out by making a cut from the front button placket in the centre to the left sleeve cuff. The material was turned over and a curved cut was made at the back, from the hem fold to the right sleeve cuff.



Figure 96. This garment was mapped out by cutting alongside the blue text line, following the armpit seam to the cuff. A cut was then made following the right side seam all the way to the sleeve hem. The material was then unfolded.









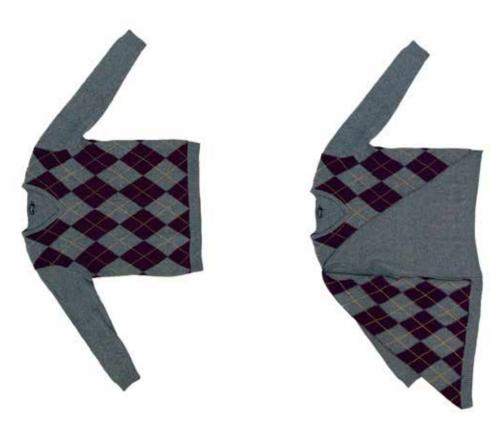


Figure 97. This garment was mapped out by cutting a diagonal line which followed a diagonal line on the argyle pattern of the material, from the lower side seam to the shoulder seam. The material was then unfolded and a second cut was made at the right side seam from the bottom hem to the armpit seam. Then flattened out.











Figure 98. This garment was mapped out by unpicking the frill from the rest, then making a curving cut from the armpit to the hem, crossing one side seam.





Figure 99. This garment was mapped out by cutting the front dart from the hem to the shoulder seam, lengthening it. Material turned and same typ of cut were placed at the back. flattened out.



Figure 100. This garment was mapped out by cutting the right side seam from the bust to the hem fold and removing one of the attachment points at the shoulder.





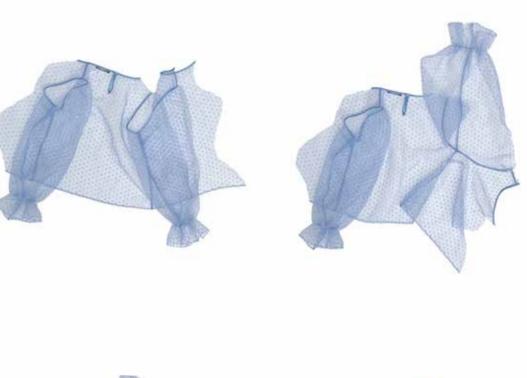
Figure 101. This garment was mapped out by making a wavy cut starting near the zipper at the waist and moving around the skirt ending at the front hem, close to the zipper.





Figure 102. This garment was mapped out by making a straight cut from the shoulder to the hem. The material was then flattened out.







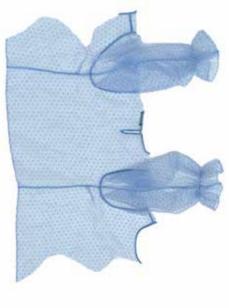


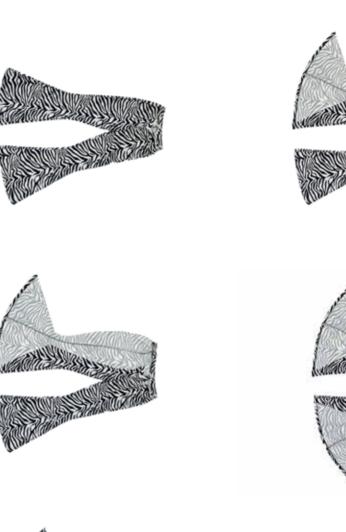
Figure 103. This garment was mapped out by cutting a line that followed the form of the wavy sleeves, from the hem fold to the shoulder at the front. The material was then unfolded and a cut was made parallel to the right shoulder seam, ending at the sleeve frill. The material was then flattened out and the same cut was made on the other shoulder and sleeve. The material was then flattened out again.





Figure 104. This garment was mapped out one step at a time, by improvising and cutting based on the directions of the print. The zipper and hood were kept intact.





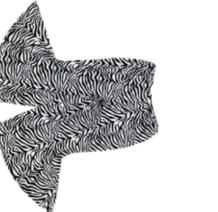




Figure 106. This garment was mapped out by cutting the left leg from the hem fold, close to the inner leg seam, diagonally to the centre of the knee. From there a straight cut was made to where the front seam met the waistline. The process was repeated on the right leg.



Figure 107. This garment was mapped out by making a cut from the sleeve hem to and around the printed number on the back and stopping at the side seam. The material was then unfolded and turned over. A new cut was made from the side seam and following the horizontal print all the way to the last yellow line. The material was then unfolded and arranged in different ways.



Figure 108. This garment was mapped out using two horizontal cuts from the button placket to each side seam.



Figure 109. This garment was mapped out by following the graphical elements, starting with a horizontal cut next to the reflective silver line which ended at the orange line; a 90-degree cut was made to change the direction, and the cut continued up to the side pocket. The material was then unfolded and turned over and a vertical cut was made on the other side, following the orange line at the side and continuing around the side pocket.



328 orange line at the side and continuing around the side pocket.





Figure 110. This garment was mapped out by cutting a vertical line following the checked pattern, with a horizontal cut at each side of the previous cut. The material was then unfolded and turned over, and corresponding cuts were made at the back of the skirt. It was then flattened out in different ways.

















Figure 111. This garment was mapped out by randomly folding the material. A cut was made in the fold at the right side, and the material was unfolded and arranged in different ways. A new fold was made, with the front of the material facing up, and another cut was made in the left side of the material, opening it from the armpit down to the ribbing. The material was then unfolded again.



Figure 112. This garment was mapped out by cutting the mesh between the frills, opening up the sleeves and side seams.



7.6 COMBINING INDIVIDUAL, SPECIAL, NON-GENERIC AND GENERIC GARMETS

Now, in the same way as in preceding paragraphs, let us explore how to compose and combine a se-lection of the individual, special, non-generic mapped out materials, with a flavour of generic materials elements added to the mix.

As before, there were interesting conversations between differences and similarities within the materials when they were moved on top of, under, inside, or next to each other and composed in new ways. Almost like mixing multiple textile 'personalities' – even and uneven, balanced, and imbalanced, impro-vised, and organised, eclectic, and homogeneous – and seems to have resulted in them reflecting each other based on their combined repetition of difference.

The differences between individual garment-materials meant that it was easier to map them: the ex-pression of a printed dress could be enhanced by a more basic garment that had been folded, as to-gether the two created a more complex geography. This meant that the expression of one garment-material could be reflected in another, continuing in a dynamic dance akin to choreography.

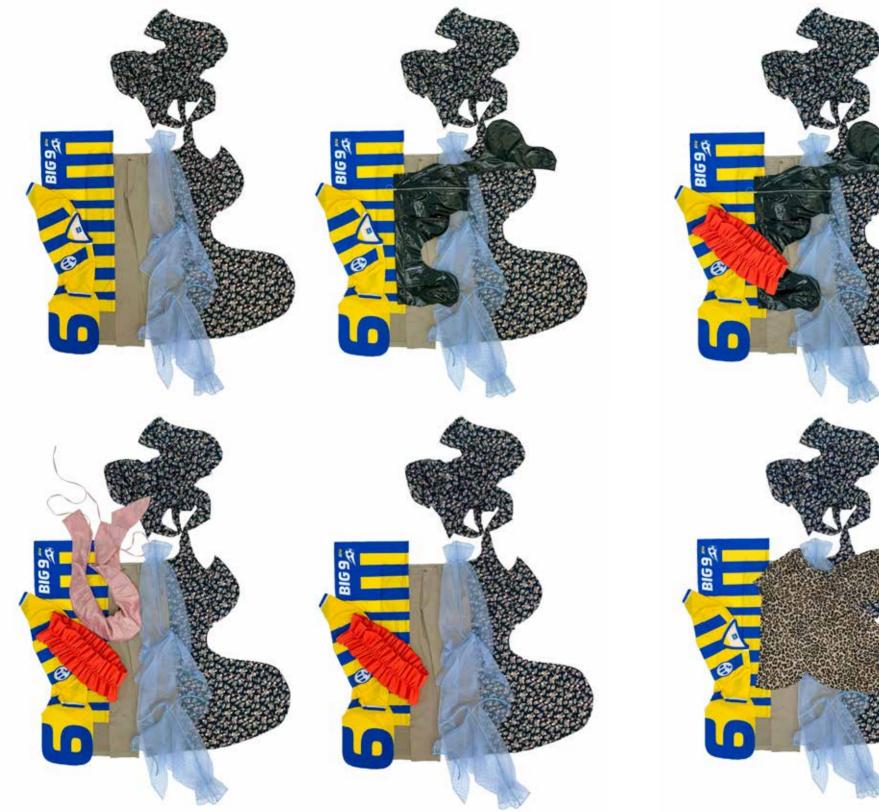
However, there also occurred fruitful combinations of generic and non-generic garment-materials, wherein mapped-out generic materials often functioned as 'glue' that held together the non-generic ones – sometimes as a centre point, sometimes as a frame. The generic garment-materials functioned to tie up loose expressive ends, and the variety of variables of each category of material were resolved together within new, mapped-out material geographies.

Another, more practical note relates to scale: Some of the special garments were relatively large, ena-bling more things to be placed on top of them. This was interesting as the base 'calmed' the rest, just as the rest added to the base, which was so basic that it was perceived as essentially being a roll of fabric.

Figure 113. This garment was mapped out by randomly folding the material. A cut was made in the fold at the right side, and the material was unfolded and arranged in different ways. A new fold was made, with the front of the material facing up, and another cut was made in the left side of the material, opening it from the armpit down to the ribbing. The material was then unfolded again.



336 **Ⅰ**



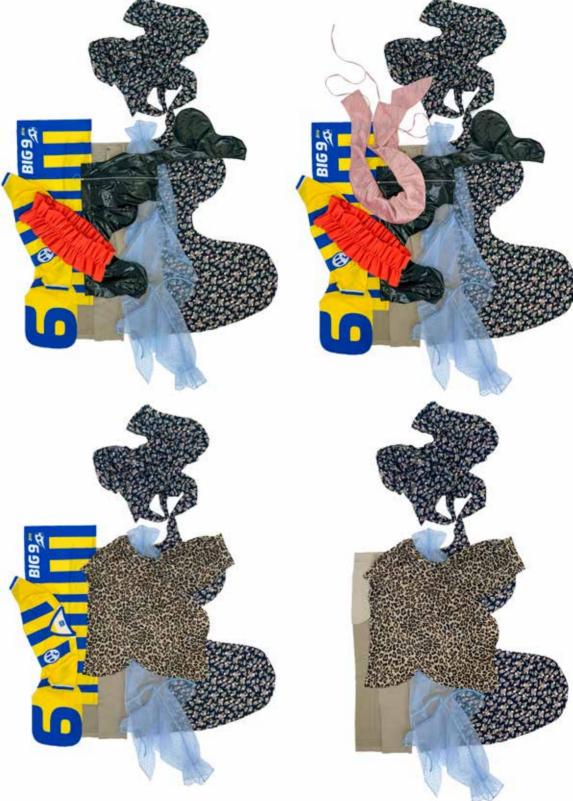
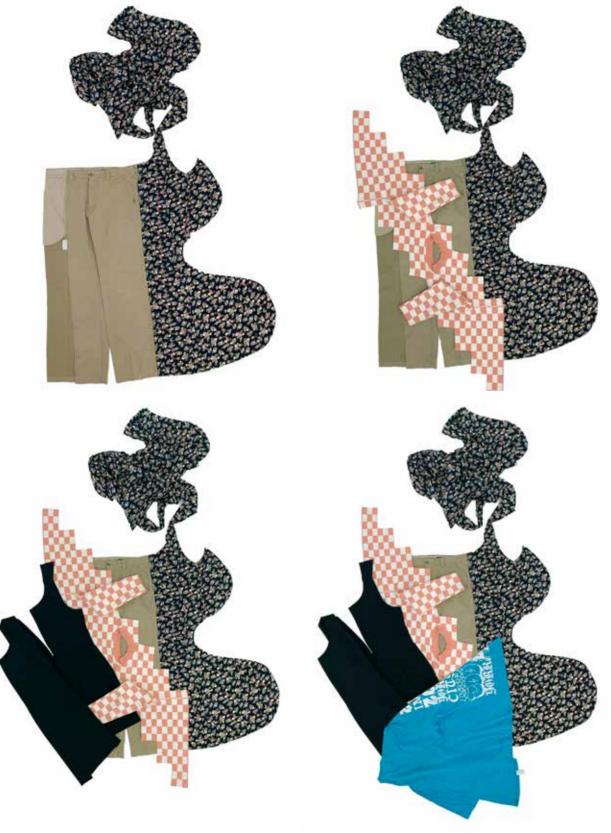


Figure 114. This garment was mapped out by randomly folding the material. A cut was made in the fold at the right side, and the material was unfolded and arranged in different ways. A new fold was made, with the front of the material facing up, and another cut was made in the left side of the material, opening it from the armpit down to the ribbing. The material was then unfolded again.



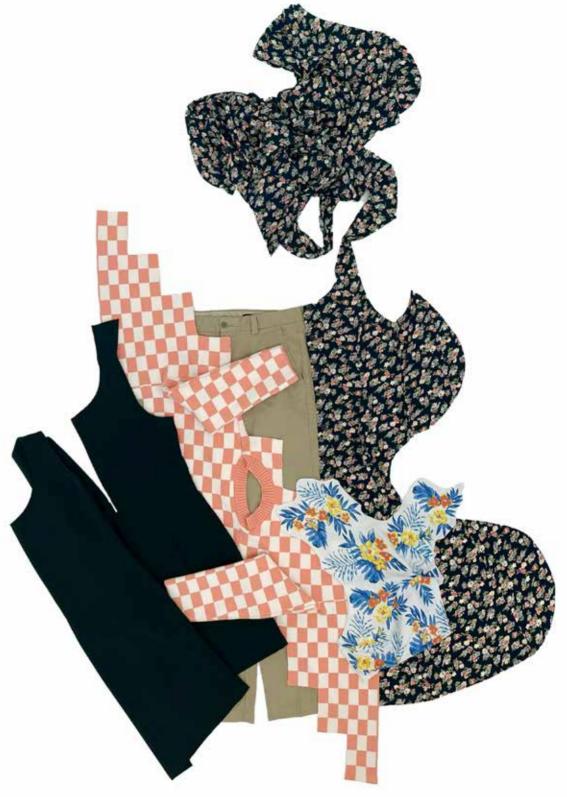


Figure 115. This garment was mapped out by randomly folding the material. A cut was made in the fold at the right side, and the material was unfolded and arranged in different ways. A new fold was made, with the front of the material facing up, and another cut was made in the left side of the material, opening it from the armpit down to the ribbing.

The material was then unfolded again.





Figure 116. Trench coat & ball gown.





Figure 117. Trench coat & ball gown & small polka dot dress & knittwear.





Figure 118. Trench coat & ball gown & small polka-dot dress & big polka-dott dress.



Figure 119. Trench coat & fury knitwear & jaquard dress & checkedskirt.





Figure 120. Jaquard dress & penn skirt.

350 ▮





Figure 121. Jaquard dress & penn skirt & jacket & shirt.

352 **I**

















Figure 122. Suit trousers & zebra trousers & patchwork blouse.

















Figure 123. Suit trousers & zebra trousers & patchwork blouse.

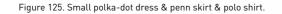




Figure 124. Small polka-dot dress & penn skirt & polo shir.

358 ■











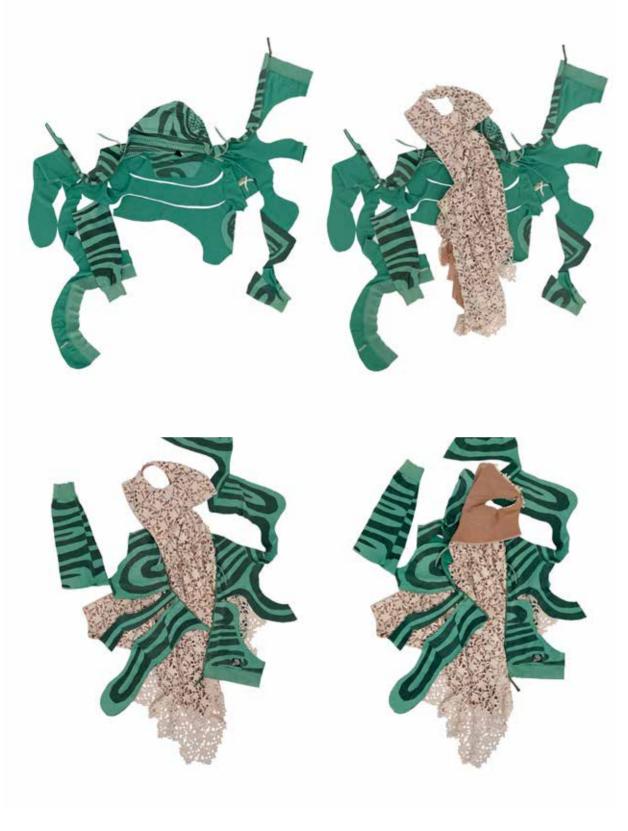




Figure 126. Hoodie & lace dress & frill.



Figure 127. Hoodie & argyle knitwear & chinos.











Figure 129. A suitjacket mapped out, then placed on a dress stand the standard way and in an alternative way.





Figure 130. A trench coat mapped out, then placed on a dress stand the standard way and in an alternative way.





Figure 131. A penn skirt mapped out, then placed on a dress stand the standard way and in an alternative way.





Figure 132. A T-shirt mapped out, then placed on a dress stand the standard way and in an alternative way.





Figure 133. A shirt mapped out, then placed on a dress stand the standard way and in an alternative way.

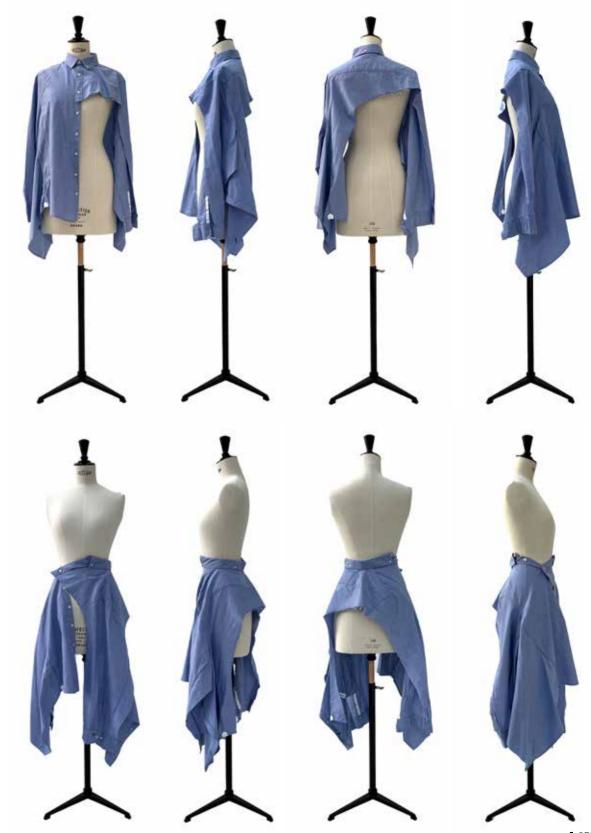




Figure 134. A trench coat & dress mapped out and combined, then placed on a dress stand in two different ways.







Figure 135. Chinos & T-shirt mapped out and combined, then placed on a dress stand.



Figure 136. Chinos & T-shirt mapped out and combined, then placed on a dress stand.







Figure 137. A hoodie mapped out, then placed on a dress stand the standard way.







Figure 139. Work trousers mapped out, then placed on a dress stand the standard way and in an alternative way.







Figure 140. Work trousers & small polka-dot dress mapped out adn combined, then placed on a dress stand.

Then placed on a dress stand.

392

393



Figure 141. T-shirt mapped out and placed on a dress stand the standard way and in an alternative way.





Figure 142. A flower dress mapped out and placed on a dress stand. First the standard way, second an alternative way.





Figure 143. A flower dress & T-shirt mapped out and placed on a dress stand in two different ways.







Figure 144. A flower dress & T-shirt & chinos & blue blouse & frill & collar mapped out and combined

400 🛮





7.8 CONCLUSIONS & GENERAL REFLECTIONS

The main aim of the research presented in this chapter was to demonstrate the mapping method by cutting (mapping) garments, rather than approaching garments from a sampling perspective, one result found in workshop #3, chapter 5 where significant garment characteristics where dismantled. The idea was to demonstrate how to 'read the map differently' and flatten out garments as material to create new material geographies, without losing significant and valuable features when doing so. Decisions regarding what to keep and what not to keep have been central, and the method also works in terms of preservation and aesthetic resourcefulness. For example, cutting a shirt and keeping one of the shoulders while removing the other is about both preserving some of the natural attachment points to the body and exploring new ones. The purpose of flattening out the material in this way is to understand that some features are vital to the "new" garment design. Another perspective is that cutting is faster than popping seams, a method often considered to be too time-consuming within remake, especially when undertaken on a large scale.

When undertaking these experiments, the focus was on exploring a large number of garment-materials in order to have a wide range for the purposes of comparison. As with the explorations of the swatches and captions, there was a need to have a large set of examples and good variety in order to develop and demonstrate the potential of the method by working through individual and combined problems. As a result of this large number of examples, a key finding is that, regardless of the nature of the original garments, the shape of the cuts and the structures of folds have the greatest impact on the redesign result.

When cutting the garments there was a perceived risk of something significant being lost, or at least the benefits, richness of details, and expressions of the garment-materials disappearing. However, this could also be connected to craft as a process: when crafting there is always a risk of something not going according to plan because of the issue of human skill and thought processes, and this risk is more clearly perceived when 'creating' using something that was finished by taking it apart, and working towards making something new without knowing the endpoint. Every cut is a decision made based on improvisation, but the technique has its own musical key. I think as I cut, rather than before I start cutting, and try to be present with the material – what can lead the process, and how? Thinking with the scissors, being preoccupied with balance, seeking symmetry or asymmetry; a visual understanding of structure is achieved when

mapped material. There are no definite plans, only curiosity, which allows the material's characteristics to become a guide for the mapping process. It is about artistic will and matters of scale. Through traditional sketching this risk is reduced, as there is only a risk of erasing or altering the sketch, of only 'risking' time. Similarly, with the folds, a fold can be made but also altered and rethought.

In addition, the complexity of expressions must be addressed, as some aspects of garment-materials – size, material, density, behaviour, details, drape, colour, etc – differ between some and are similar in others. This suggests that further explorations and training with more complex materials should be undertaken. The combination of very expressive garments could be highly complex in terms of mapping out and cutting. On the other hand, there is also great potential in working with pre-existing garments, in that garment-materials are often different from one another, offering a wider array of different design directions than that offered by traditional design.

The form and number of cuts influence how the garment is altered and what information in the topology/garment is available to examine. Thus, a small cut makes the material less flexible in terms of further investigation, while a larger cut makes it more flexible. There is no right and wrong, only observation; the larger the cut, the more is opened, and the more freedom there is to transform the piece and its details into something else, be that flat or three-dimensional. Mapping is all about accuracy and precision, but these are easier to adhere to when the material contains more details and elements to follow during the process of cutting. The making of straight or curving cuts is sometimes related to how I think about the end result. Sometimes I cut because, of course, I know what will look good on the body. To go with or to go against – sometimes I follow the seams, sometimes I do not. At times I focus on a specific point, find a line, make a line, or deal with an all-over print.

A challenging aspect of working with existing garments as materials is that they are already defined things with embedded qualities of different kinds, and in relation to that there are different levels with regard to how much these embedded qualities can be ignored when designing with garment-materials. The challenge lies in the method's way of opening up and mapping the garment-material in order to be able to work it into other, alternative directions than that of the original. This involves giving the new form the opportunity to expand, contract, fold, and flex in ways that the original form was not able to. However, working with existing garment does not just have aesthetic disadvantages; there are also aesthetic advantages.

8. MAPPING MORPHOLOGY

8.1 EXPERIMENTAL SETUP

In Chapter 7, the principles and potentials of the mapping method were explored and demonstrated through a large set of garment-materials. It was evident that the shape of the cuts and structures of the folds had a great impact on the redesign process, both for individual results and when these were combined. This also related closely to the rich variety of textures, shapes, and other significant features of the garment-materials. However, is there a way to summarise the principles of mapping using a single type of generic garment in order to compare new garment geographies?

Let us examine how folding a plain T-shirt in different ways enables shapes beyond the original T-shirt shape to appear, without dismantling the garment. We can also explore how different cuts enable different levels of flexibility when the material is flattened out and hung on a dress stand.

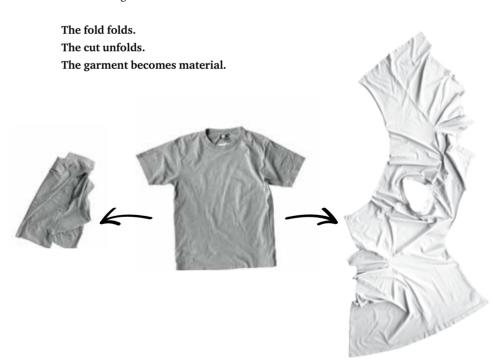


Figure 146. From left to right: a folded T-shirt, the T-shirt before it was folded, and the cut and unfolded T-shirt. The T-shirt before it was folded could be viewed as a constant, the end point in a traditional design process, or as a starting point in a redesign process.

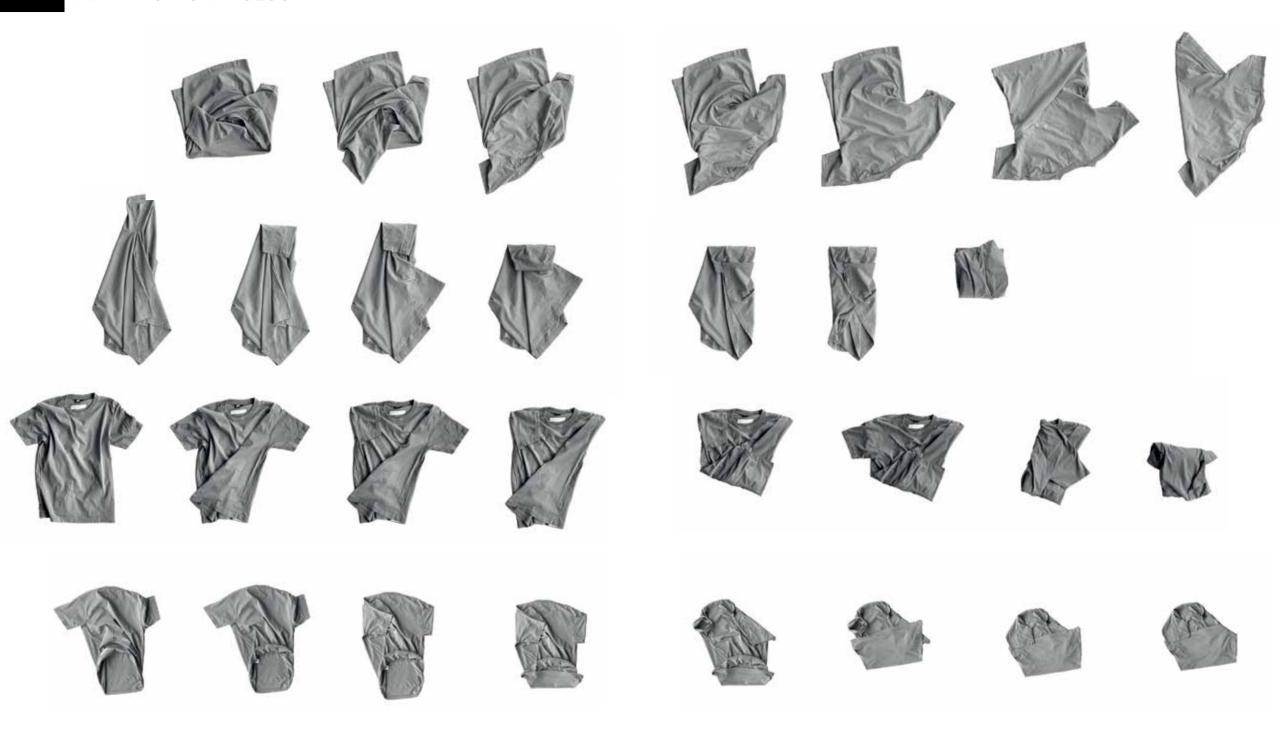


Figure 147, four different series of folded T-shirts.

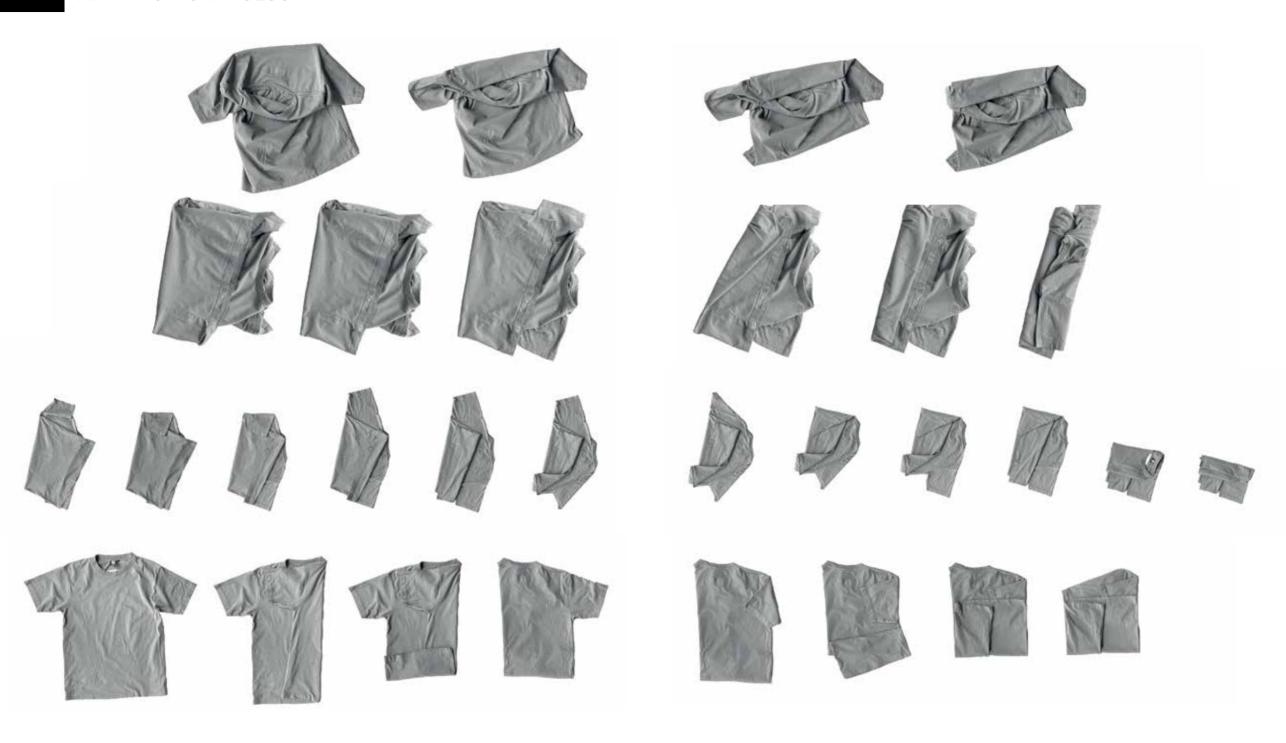


Figure 148, four different series of folded T-shirts.

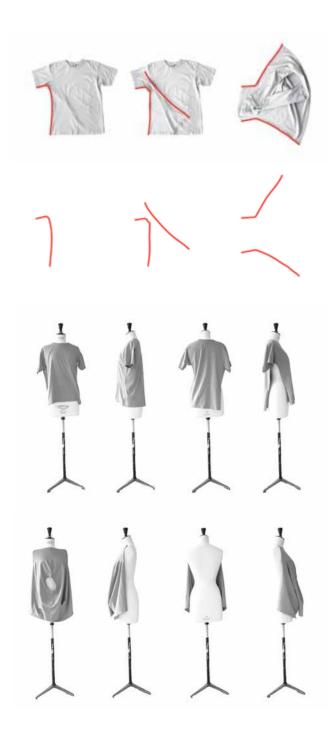


Figure 149. A cut was made at the side of the material. The garment was placed on the stand in both the standard way and in an alternative way.

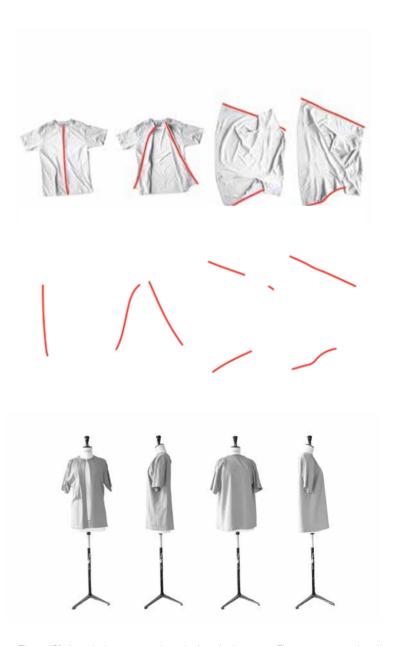


Figure 150. A vertical cut was made at the front in the centre. The garment was placed on the stand the standard way.

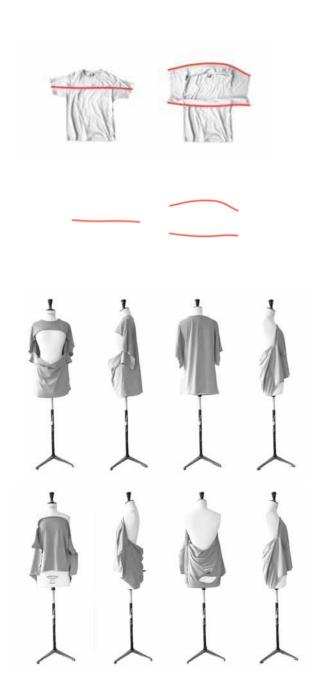


Figure 151. A horizontal cut was made from sleeve to sleeve. The garment was placed on the stand in the standard I way and in an alternative way.

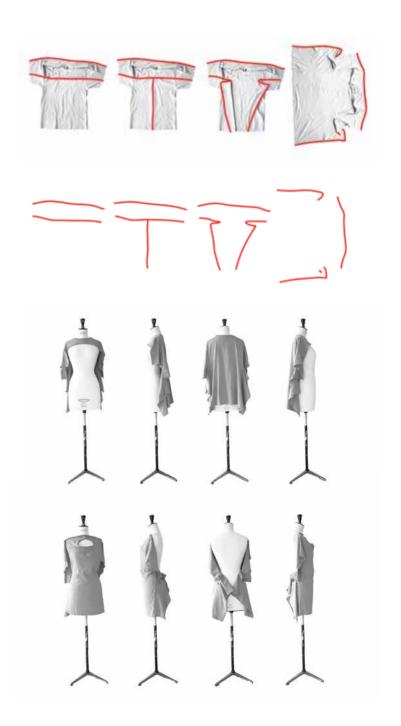


Figure 152. Horizontal and vertical cuts were combined. The garment was placed on the stand the standard way and in an alternative way.

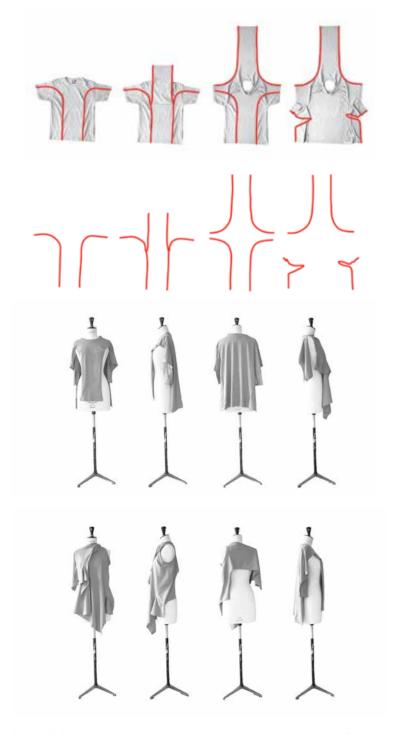


Figure 153. Two symmetrical cuts were made from each hemfold to each sleeve. The garment was placed on the stand the standard way and in an alternative way.

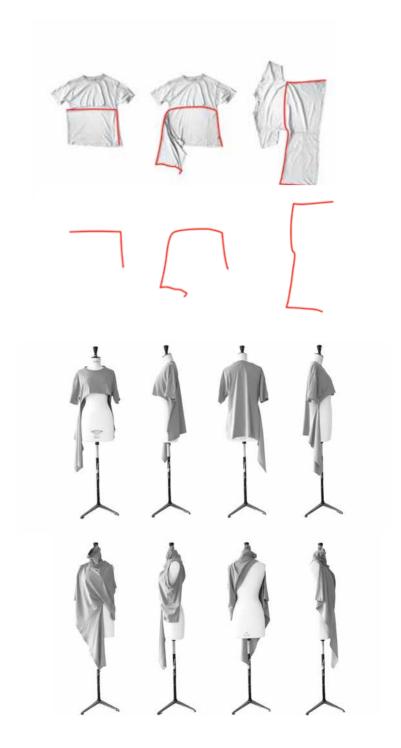


Figure 154. A cut was made following the side seam to the bottom hem, two thirds of the way up. A horizontal cut was then made all the way to the other side seam. The garment was placed on the stand the standard way and in an alternative way.

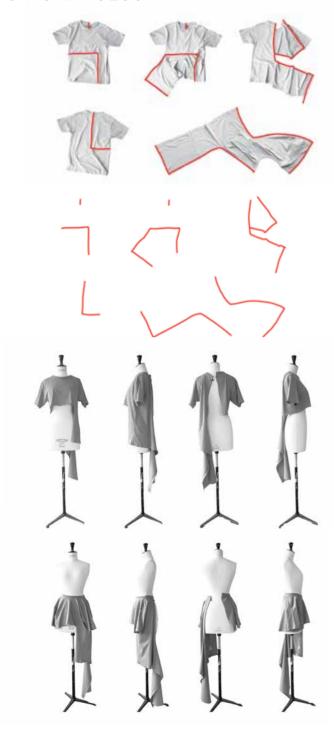


Figure 155. A vertical cut was made from the bottom hem to two thirds of the way up the material. A horizontal cut was then made crossing the side seam and onto the back, stopping in the centre of the back. From there a vertical cut was made ending at the back of the neck. The garment was placed on the stand the standard way and in an alternative way.

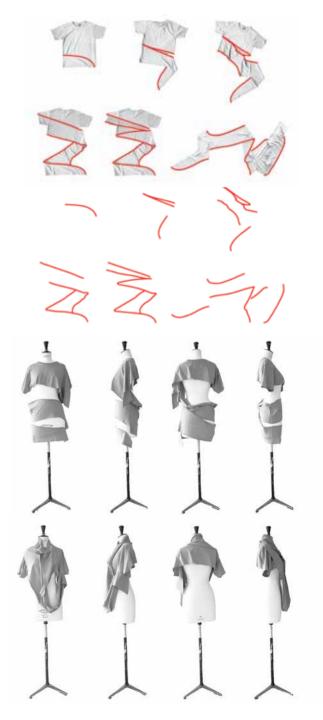


Figure 156. A serpentine cut was made starting from the hem at the right side, moving diagonally up to the armpit, continuing at the back, and stopping at the left sleeve. The garment was placed on the stand in the standard way and in an alternative way.

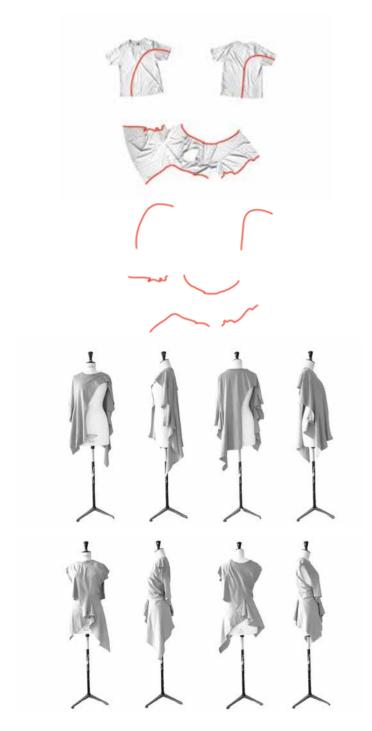


Figure 157. A curved cut from bottom hem, all the way up towards the sleeve. Same type of cut is placed at the back of the material. Place on the stand in the standard way and in an alternative way.

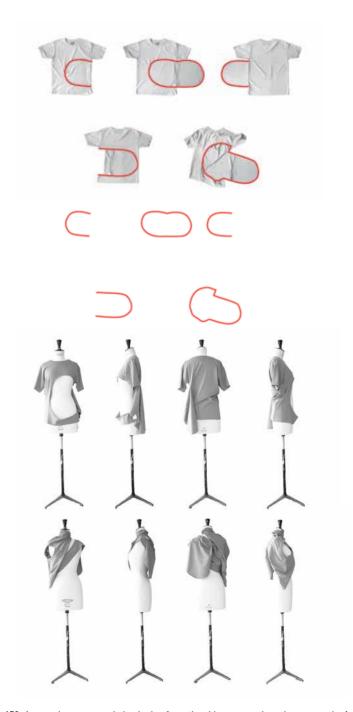


Figure 158. A curved cut was made beginning from the side seam and moving across the front and over to the other side seam. The material was turned over and the cut was prolonged a few centimetres onto the back. The garment was placed on the stand in the standard way and in an alternative way.

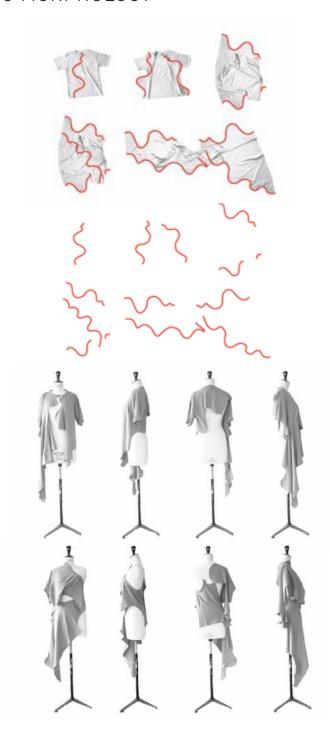


Figure 159. A squiggly cut was made a few degrees off the diagonal across the front of the material. The garment was then turned over and a squiggly cut was made diagonally from the armpit to the bottom hem. The garment was placed on the stand in the standard l way and in an alternative way.

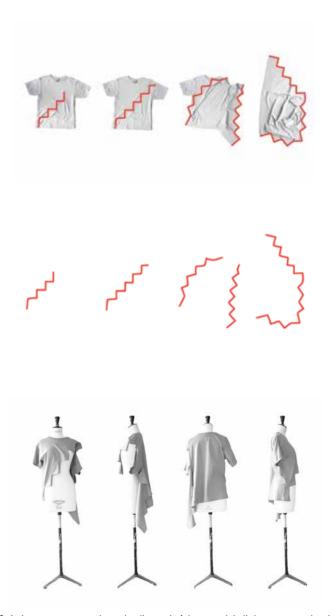


Figure 160. A zig-zag cut was made on the diagonal of the material all the way up to the shoulder seam. The garment was placed on the stand in the standard way.

422 | 423

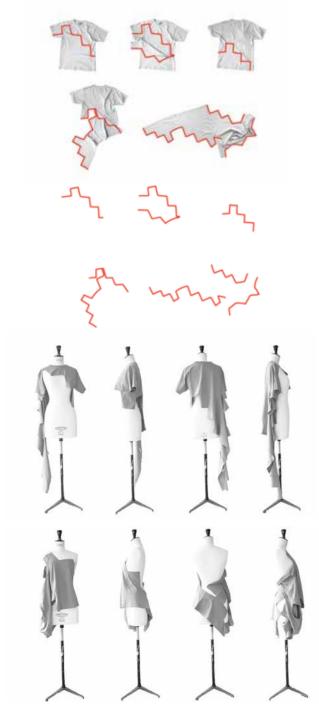


Figure 161. A zig-zag cut was made on the diagonal of the material, but placed higher up in the one made on zFigure x. The material was turned over and the zig-zag cut was continued onto the lower section of the back. The garment was placed on the stand in the standard way and in an alternative way.



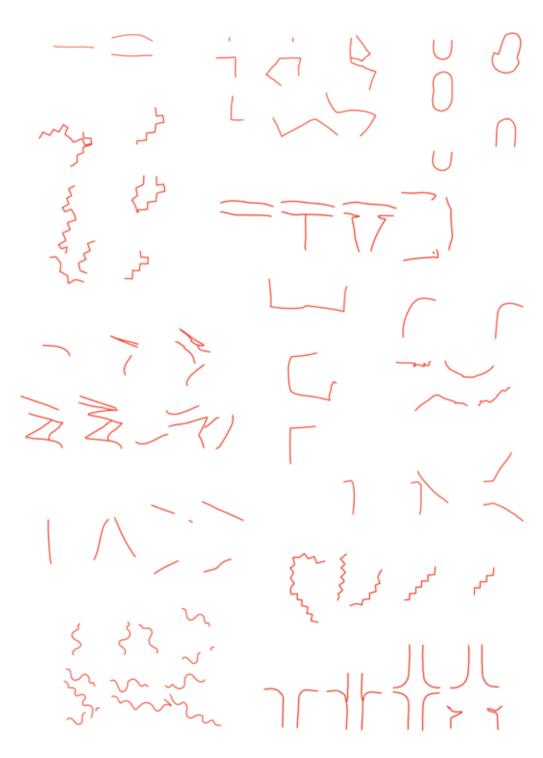


Figure 163. Notations for all of the cuts, which were used to create different structures using the 13 mapped-out T-shirts.

8.2 CONCLUSIONS

A cut is a thought translated into action. A line is the notice of that action. The fold folds, the cut unfolds. Both are perspectives on garment-materials that are intended to help the designer to look beyond the T-shirt, create a new garment geography, and turn 'fixed' garment forms into 'flexible' garment-materials.

In the experiments presented in Chapter 7, all of the parameters were varied – different expressions, materials, cuts, and combinations of these. The aim of this experiment was to demonstrate working with a constant material in the form of a T-shirt, while following and reading the 'map' differently. This facilitated, in essence, comparison through single-garment transformation.

With the intention of making the experimentation even simpler, a distinction between fold and cut was made. This was an attempt to ascertain how the various steps would affect the original material. It was important that bold, significant garment expressions would not get in the way of the cut. On the other hand, when the material was relatively plain and somewhat uniform, the silhouettes of the different T-shirt pieces became essential, e.g. the outer edges, the red marked lines, the contours of the piece, rather than what these outlines were framing – the material expression between. This in relation to the more expressive garment materials mapped in previous chapter whereas in this case the entire material area was being framed using mapping cuts.

Having mapped 13 T-shirts, one reflection is that the mapping morphology evolved; mapping led to greater flexibility regarding following the complexity of development by looking at the form and placement of the different cuts. However, the actual expression of the mapped garment – the garment geography – was less developed. Working with the T-shirt pieces was reminiscent of working with calico cloth; it resulted in a first sketch, a mock-up. The actual fabric came later and transformed the monotonous into something more extravagant.

Another reflection is that the reason for placing the different mapped-out materials on the stand was to relate these back to the starting point, the original way of wearing a T-shirt, and to suggest new design and garment structures. The same reflection occurs as above – on the dress stand, the materials looked a little like traditional calico that had been draped. Is this how these experiments should be viewed, for a wider audience and function, or for other purposes? Should they be seen as pattern pieces to be used as design foundations for other materials, like fabric by the metre?

Another reflection is that when copying each set of red lines, i.e. the notations of the cuts from the garment materials, during the creation of Figure X, there was a rhythm – a somewhat irregular, abstract, yet repetitive structure. This made me think of the architect Yona Friedman: "Irregular structures admit improvisation. You cannot easily draw the plans and sections of an irregular structure; you have to improvise them on-site". (Freidman 2017)

Given this idea of notations of cuts, improvised on-site and performed with scissors and garment-materials, could these notations function as instructions for others? Could these lines be musical notes of a sort, a score possible for other musicians to play? To return to Yona Freidman: "Irregular structures are interesting not only because of the richness of shapes they produce. Their principal advantage lies in the way they are built, which allows them an exceptional tolerance to imprecision. This makes them accessible to the layman builder, who may have mediocre skills and no sophisticated tools". (Freidman 2017)

So, by looking at the 'mapping morphology' (the theory of form in grammar) developed in this chapter, in combination with the rich 'garment geography' of expressions within generic and non-generic garment materials in the previous chapter, one could argue that mapping provides a key advantage in terms of its exceptional tolerance to imprecision. This imprecision is at the very core of the redesign field and relates not only to how to design with and using garment-materials, but how to collect, sort, and classify them as remake materials with many different kinds of potential due to unpredictable material conditions and volumes. So perhaps the red lines functioned not as design instructions, but as mapping abstractions, as mapping forms.

This could also be seen in relation to Erika Blomgrens field of research where she, by drawing lines, explores, and defines relationship between the body and the material that dresses the body. How they both pull eacother in different directions, influenced by the movement or position that the body has and the gravity. While the mapping morphology is more of a drawn explanation of material flexibility in relation to the construction of the garment.

9.VAMPING

Previous chapters explored the sampling ('fabric and pattern pieces') and mapping ('making the material as flexible as possible') approaches to transforming garment-materials into novel designs. Both of these approaches can be said to involve relatively extensive changes to the forms and uses of the garment-materials, with end results that are quite far from the form and use of the original garment.

However, in the field of redesign there are several other possible design actions and ways to alter garment-materials that result in less pronounced changes and transformations. A refurbishment approach to existing garments could encompass dyeing, detaching or attaching shoulder pads, changing zippers and buttons, mending holes, altering the fit, making a new neckline, adding embroidery or a graphical element such as a print – in essence, design actions and adjustments in line with the original purpose and function of the material. The vamping -materiala pproach to the transformation of the garment - material is relatively gentle, in contrast to the 'big transformation' approaches of sampling and mapping. This vamping approach can vary from primarily exploring the garment-material as a canvas – limiting alterations to the surface of the material rather than altering its structure or overall form – to making smaller adjustments to the form and silhouette. Following figures in this chapter shows several examples of vamping, designed by the author over the years, also in collaboration with others.

When working with second-hand garment-materials, stains and dirt are a common problem. Therefore, washing as a design tool can be useful to consider. If not possible these different stains may be used as a design guide, embedded into the process of creation, to be part of the expression of the finished garment. In addition, he majority of garments that are cheaply and easily available are wrinkled be-cause of how they have been handled during sorting and how they have been stored. Therefore, such a thing as an iron can be a useful design tool refresh the material.

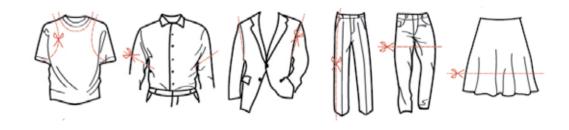


Figure 164. Examples of vamping from a construction perspective. Here, the fit and shape have been altered but most of the design has been retained.



Figur 165. Shows a shirt before and after being ironed





Figure 167. Wool suit trousers, originally in size 40, and were made into size 38 by adding an invisible seam on the rear.



Figure 168. A skirt vamped by adding a 15 cm seam at the waistline to lift the upper part up to create a drape and reveal the shimmering lining.



Figure 169. A machine-knitted sweater which was turned inside-out, making the seams a significant part of the design.



Figure 170. A men's suit jacket vamped up with a frill from what was previously a party top.



























Before starting this doctoral work I worked as the Artistic Director of Re:textile, a pilot project at Science Park Borås. There, among other things, we worked to support Swedish fashion companies who were exploring redesign as a business model through local production in Borås. Lindex designed new products based on their inventory of unsold jeans, including patchwork kimonos and cropped jeans with transfer print added.. Cheap Monday altered discarded, washed, and worn-out workwear made by Berendsen that no longer met the criteria for industrial laundry and rental clothing (Berendsen's business model). The redesign consisted of garment dye, changing zippers, and adding new transfer print logos to get a Cheap Monday feel and a coherent look to this type of varied and patinated garments of use.

Following the completion of the research presented in this thesis, it is evident that the Re:textile project's work was more about technology and design management than exploring design methods and concepts connected to clothing as raw materials for design. What does that mean? Well, the focus was on updating garments through machine embroidery, printing, and dyeing, as well as relatively simple types of sewing – technical solutions that could be undertaken locally, in Borås, on a relatively large scale. So, the design work back then did not involve parallel exploration of what 'updating' meant and could mean for design beyond technology, logistics, volume, pricing, packaging, etc. A fundamental question was absent:

- If a garment becomes a material, what is fashion design then?

Initially, the intention was for the Re:textile project to be central to my research, but as things turned out, it was the other way around. Regardless, what the Re:textile project suggested became the core and framework of this thesis – the idea of the garment as a design material. As Carl Malmgren, Head of Design at Cheap Monday, stated in the film that was produced purposely for the redesign project.

I think there is something kind of backwards – you want to design a T-shirt, start with virgin material, put a T-shirt together and wash it to make it look old. And in some industries, there are many worn-out T-shirts just being thrown away every day. (Carl Malmgren, Cheap Monday 2018)

What we discovered with this project is that you can actually use these T-shirts if you move them to another context. And maybe they can be even more perfect when they are worn out, since what is considered to be garbage in one context could actually be highly desirable in another. (Carl Malmgren, Cheap Monday 2018)

These two quotations suggest the importance of investigating redesign not only from the perspectives of materials and resources, but from a design perspective. In the research presented in this thesis the garment as a material is at the centre, but the investigations proceeded from an experimental design perspective.

In order to explore redesign from a different perspective than the commercial one where conventional work methods, lack of time and constant requirement for sellable products were impediments; the decision was made to work with design students. This has been crucial to the research, not only because it provided the opportunity to work with different groups of students at different times but because it led to the formulation of new research questions along the way as new issues appeared. Each session with the students included a seminar where they reflected on the subject and their own work, and the recordings and transcripts of these seminars were central in understanding both the difficulties and possibilities of redesign. It often happened that the students formulated things that I had thought about but could not articulate. They also confirmed and strengthened hypotheses I had, and made me recognise my 'hang-ups' that I needed to move away from.

For example, during Workshop 1 the analysis of the results dealt with the fact that the 'technological thinking glasses' were worn by the me for the majority of the workshop. My focus was to summarise the ways in which many people cut, sew, unpick seams, and draped, and so I was stuck with a sort of 'technical verb perspective'. After several sessions of looking at the students material, it became clear that something completely different had taken place during the workshop that related to what it really means for a designer to work with garment-materials.

This involved trying to show or preserve something while remembering something else. Searching for other things was necessary, and therefore perhaps key to destroying or dismantling the existing garment or forgetting what it was in order to create a new design.

Difference	Irregularity	Abstraction
Vs	Vs	Vs
Similarity	Symmetry	Туре

Table A. Approaches to selecting/sorting the material

This was also important in relation to the selection of material, in that it is sometimes difficult to understand the situation you are facing as a designer. I find the desire to match colors, work with a specific style, and so on to be interesting as these are aspects of the more conventional way of designing – more of the same, where balance rather than imbalance is sought.

Showing	Preserving	Remembering
Vs	Vs	Vs
Searching	Destroying	Forgetting

Table B. Approaches to redesigning/remaking the material

What about taking the garment as the starting point for the design?

When working with garments, it does not matter whether it is entirely unique or many like it exist. What you have at hand is what you start designing with. The redesign process can be repeated many times if more of the material is found. However, the basic principle here is that the material, i.e. the garment, comes first.

Every garment has its own problems and characteristics – wear and tear, seams, pockets, colours, stains, prints, linings, etc. Sometimes these hinder the redesign process; sometimes the process originates from these things. When designing in a more conventional manner these faults or errors are not present, and instead are characteristics that the designer decides to add to the sketch of the garment, which is made of virgin material. One could argue that working with a garment as a material revolves around another type of taxonomy, an alternative economy with a different understanding of

expressiveness. With this in mind, the main question to deal with from a design perspective is:

What do you do when a garment suddenly turns into a material?

How do you capture the expression of something that has been transformed from something that has been worn as a garment such as a jacket into a design material? The line, silhouette, colour, and shape of a garment-material can all be dealt with in different ways, from the simplest of alterations such as small adjustments in line with the original material and purpose of the garment to a total transformation using different techniques and methods, where the original concept is overturned entirely.

Where do we begin when dealing with the volatile and unpredictable flow of garments in different states of wear and with wildly varying expressions? What would fashion design be if it focused more on redesigning and remaking the remnants of industrial fashion?

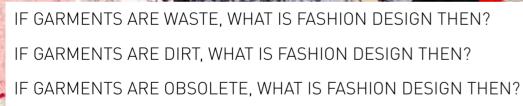






Figure 187. Examples of 'waste'. Surplus garments are leftover, unwanted or unusable, discarded, defective, or otherwise worthless pieces of clothing. They are unwanted products, prototypes used during design development that are for some reason rejected or garments that are considered unimportant or valueless.



Figure 188. Examples of 'dirt'. If fashion traditionally builds on things that are virgin, graceful, spotless, pure, and otherwise perfectly 'unique', dirty suggests things and processes that are stained, discoloured, or discarded – garments of poor quality and little meaning, worth, and significance.



Figure 189. Examples of 'obsolete'. If fashion suggests things and acts that are trendy, in fashion, and in focus momentarily, obsolescence describes things and processes that have been discarded – a style or mode, a print or colour, something no longer current, something that is outmoded.

Initially this was one way to view the subject – in terms of the division between style and condition. It was a way to 'bring order to the mess' and guide the design process, with the intention of figuring out what things were and describing them so as to go about designing based on them. Waste, obsolescence, and dirtiness were part of the framework for ideation in the research presented in this thesis. As a result, the fundamental question was: As a designer, what does it mean to approach the garment as a material? The experiments with the scanner (the methodological proposition 'swatch and caption' are examples of how a designer can approach the garment as a material.

Although we as designers constantly work with expressive garments, we tend to take a technical, functional, contextual, or personal perspective when we talk about them.

Reflecting on the 'swatch and caption' concept, it is remarkable how difficult describing an expression can be. When working with discarded materials such descriptions are particularly complicated due to the negative connotations of dead garments, leftovers, old prints, and the idea of 'last season', not to mention how to refer to e.g. a back pocket after having transformed it into a front pocket using redesign or a 'placed print' after cutting it into pieces and using these scraps as 'all-over print' in a new design. During the workshops the students tended to refer to a specific pocket as a 'back pocket' even when it had been placed elsewhere in the new design, and similar occurred in my work as a professional designer.

It is problematic that the previous function, i.e. the history and former use, of such a pocket is considered central, rather than the fact that it is a square shape that adds to the silhouette. The urge to talk about where something came from and what it was and the 'storytelling' perspective are a glue that the redesign is stuck to, preventing novel and fresh perspectives from arising. Often this was due to a lack of vocabulary for and training in describing expressions. It is interesting to compare this to the tradition of describing the flavor of wine, where the terminology is well developed and descriptions such as bitter, harsh, earthy, grippy, smoky, flat, soft, elegant, firm, powerful, grassy, creamy, fleshy, minerally, refined, angular, and mellow are used and understood in similar ways by professionals in different parts of the world.

Referring to garment-materials as products and what 'they are' – a dress, a T-shirt, a pair of chinos, a suit jacket – and being 'in' or 'out' of style and function is problematic

The 'swatch and caption' concept can be seen as a proposition for the further development of methods of training designers to detect and describe expressive properties.

This can be useful when working with both garment-materials for redesign and fabric by the metre, in a conventional context. This can function as a new type of expressive instruction, or template for communicating with different textile-sorting facilities, i.e. the suppliers of design material if one works with post-consumer waste. These constitute new, alternative templates for what to look for, and what might have redesign potential.

However, the 'swatch and caption' concept turned out to be quite problematic as design instructions when working with scanned material, as was found during Workshop 2. This may have been because the task was very open and allowed the curiosity of the students to lead them in terms of describing expressions and hopefully then designing with the physical material they had scanned. Very few did this, however, and the majority instead based their designs on the expression of the original garment, either digitally or physically.

The swatches functioned in a similar manner to mood boards in a traditional design context. Symbols, characters, and concepts seemed to hinder the development of designs, instead of the optional perspectives – to orientate and evolve the designfrom the perspective of points, lines, and geography did.

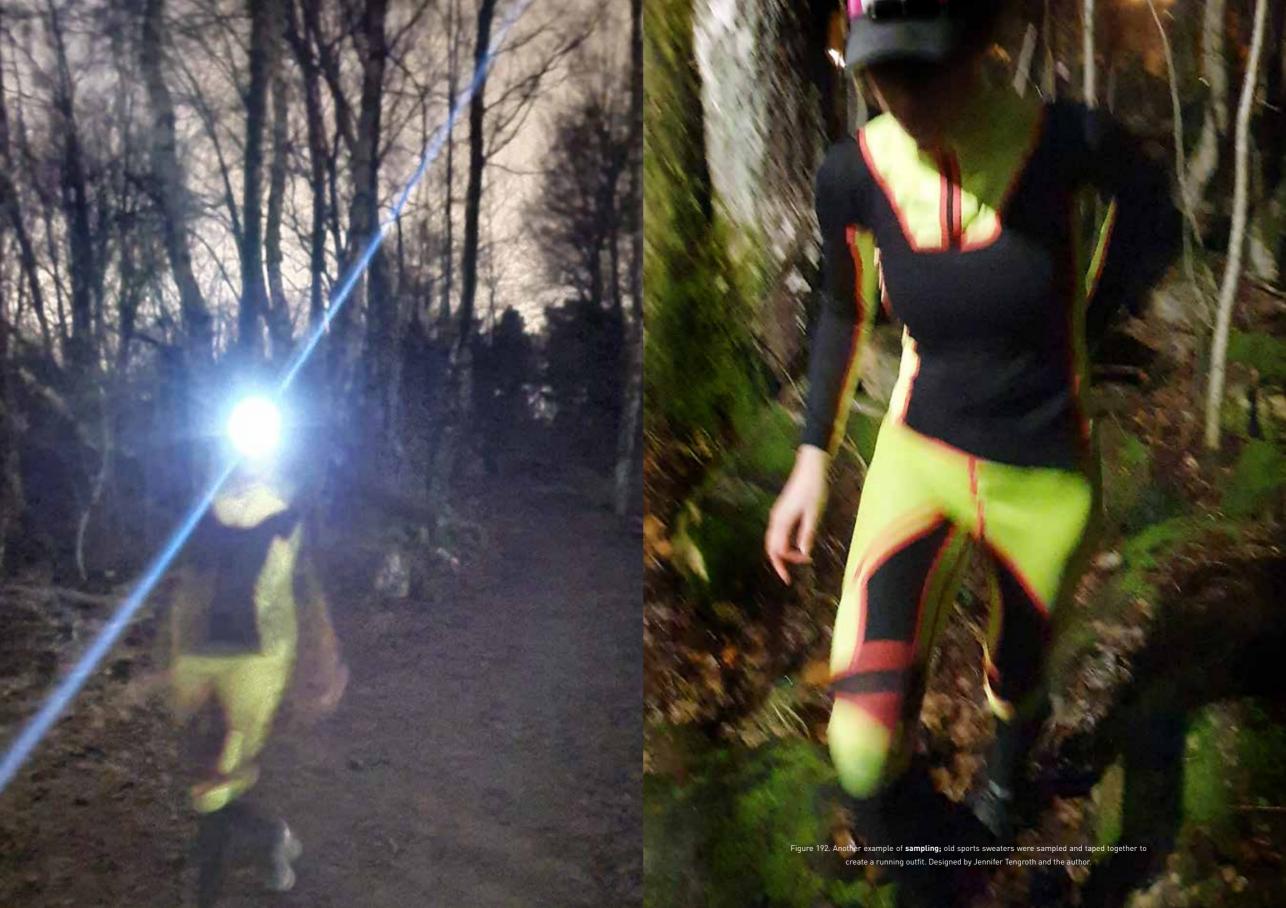


Figure 190. An example of a garment-material hung on a conventional fabric swtach hanger, to demonstrate that it is not a fabric swatch or a roll of fabric, but the entire garment that constitutes the actual material during redesign. This was done as way to elucidate the new perspective in a more general context.

Sampling and translating – two foundational concepts for redesign methodologies and construction.

Workshop 3 was particularly interesting because the sampling and translating approach to garment-materials was explored as early as Workshop 1 by a few of the students. There, however, the focus was different, and so the concepts did not resonate with the overall aim of the workshop. In Workshop 3 the sampling and translating approach was more evident due to the different perspective, which focused on sampling, referring to the process of placing block pattern pieces on flat, disassembled garments to produce different forms.





A reflection on Workshop 3 and the concept of translating is that translating the 'language' of a garment such as a pink suit jacket into the 'language' of a pair of trousers is complex; the approach in this case was draping, not sampling, and so in this context **what does** 'translating' mean? I argue that it should be viewed not as an approach in itself, but a term to be used when transforming garment-materials. Garment-materials shift in terms of context and use depending on the redesign method used and degree of change as viewed through the translation lens, which is a barometer for how 'far' the redesign has taken the garment-material away from its original state.

Another example of what translation might mean is the following example: a parka made from a sleeping bag. The details of the original material were translated from the sleeping bag to the parka. In this particular case, the redesign approach chosen was sampling – block pattern pieces of a parka were laid out on the sleeping bag in order to redesign the form of the latter.







Another perspective on the concept of translation is provided by the scarf collection shown below, designed by the author. Here, accessories were translated into garments, resulting in an example of a modular design approach wherein clothing parts were added and subtracted to create various kinds of garments, including dresses, tops, and skirts. In this example of translation accessories became garments, garments became other garments, and parts of garments became accessories. The collection was created based on interconnected modules (18 scarves), which were draped freely on a mannequin so as to achieve a flexible design in terms of fit and shape, resulting in five garments of different types.

The collection is mono-material (100% polyester) including the stitching, and is therefore possible to recycle on a fibre level. this could also be seen as an example of modular design. Generally, modular design, or modular construction, can be described as design strategy that sub-divides a system into smaller parts, modules that are created independently and then can be used in different systems. By making good choices of combinations of the available components and mod-ules of a design, it is possible to build sustainability into the life cycle of a product. In this way, reusable modules can be used in different systems - a kind of qualitative semi-manufactures ena-bling re-contextualisation and a long and varied product (Mutingia et al. (2017)



When evaluating Workshop 4, during which the design students were asked to redesign garment materials using sketching by paper and pen, is that this distinction became evident.

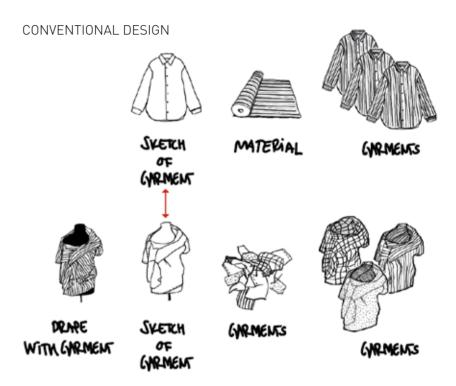
Garment and then material vs. garment as materials.

Traditionally, fashion design practice and education are separate from materials and production. Foundational fashion design education programmes emphasise new materials; students learn to design and do often begin by sketching with a pen and paper when ideating silhouettes. Makig pattern pieces in paper or cardboard. Structures are often tested in calico, and further developed and prototyped using similar materials. Working with garment-materials is generally only undertaken as part of a special project – something on the side, in brackets. Here the garment can function as pattern pieces, and be used as a basis to trace form, a short-cut for design construction and means of finding details and shape within a garment and deconstructing it so that it can become a new pattern piece to be used with virgin fabric by the metre. Standard design methods still apply in this context, with the exception of the idea of working with existing garments as raw materials. In addition, the sketch of the garment generally comes first, and the garment is then created using fabric by the meter.

Because sketching is a common design tool, Workshop 4 revolved around exploring the difficulties of sketching as a method of developing designs using garments as materials, in terms of both the actual practice of sketching and the thinking that is connected to sketching. What was particularly interesting here was the students' reflections; many considered sketching to be a 'backwards' way of working as it aims to conceive of something that has already been conceived and realised by the garment as a material. Moreover, they struggled to understand the purpose of working with sketching in relation to garment-materials. A student from Group 2 put this quite succinctly:

Drawing can be anything – one can make up and imagine whatever. This 'anything' or 'whatever' can then in the next phase be made using any type of fabric, with the right type of structure and skills. However, this mindset does not work when sketching with garments as materials, because garments have clear limitations, and cannot be, or be imagined to be, whatever you want: a garment-material is already realised as a design.

An illustration of this perspective garment and then material vs. garment as materials. and the distinction between conventional design and the redesign perspective on sketching in relation to materials and garments is shown below.



REDESIGN

Figure 195. Shows a comparison between conventional sketching method and redesign sketching method

Here the garment comes in at the final stage of the conventional design process, and at the very beginning of the redesign process, where it is present throughout. The sketch in this case can function as ideation in the conventional design process, and documentation of something that has already been designed in the redesign process. Thus, a key question is: Which sketching techniques can be used in the search for new forms of body-garment relationship if we seek to avoid showing and representing design ideas? Another question is: What can we learn from lines, structures, and draping for sketching when using garments as materials?

Another reflection on this topic: when making a sketch one starts with the outline – the same outline that is cut away during sampling; if ideating with a pen and paper is difficult, are there ways to open up the material without following the given seams and direction?









Figure 196. Left: A shirt drawing, the outlines of which presents the garment. Middle and right: a reflection on this idea, a photograph of the same type of shirt having been explored during one of the student workshops. The initial idea was to remove the seams in order to 'release' the material, and to then work with the smaller fabric scraps to create a new design using the approach of sampling. To the right, an illustration of how patternpieces of one garment is placed on top of another material, an unpicked garment.

How can traditional approaches to constructing, sketching, and documenting garments from a front/back perspective be challenged through redesign?

What might be an alternative to sampling, which deals with the grid matrix used in traditional tailoring? The answer is 'mapping', which was developed as a reflection on and reaction to previous explora-tions. Mapping revolves around making the garment flexible by opening up the form of the garment such that it becomes a garment-material, without losing significant expressive qualities.

Mapping involves cutting in order to explore the geography of garments and still retain signifi-cant features of the garmen-materials .

This relates back to the findings of Workshop 2, wherein the students tended to work with the top row of concepts shown in Figure x; garments became symbols for different things, reminding the students of relatives and friends, or even situations and physical spaces, in which things could take place. There-fore it was interesting to investigate the material from a geographical perspective, where points and lines were things to explore as the garment geography expanded .

Symbol	Character	Context
Vs	Vs	Vs
Point	Line	Geography

Figure 197. The concepts developed during Workshop 2: Tabel D. Those in the highlighted area were developed further by the author.



Figure 198. The same type of shirt as is shown in Figure x; here, it was mapped instead of sampled.

Comparison between sampling and translating: what are the differences and possibilities?

Sampling using pattern blocks can be regarded as a tool for finding 'new' designs based on 'old' ones: searching for a skirt in a shirt, for example (Figur 198). The different pattern blocks could in a traditional sense make a 'lay plan' and take advantage of the fabric 'within' each garment-material. This would not necessarily involve taking advantage of significant details and trimmings, nor embedded shapes that could enhance the experimental structure of the 'new' garment. Perspectives from the traditional context of pattern-cutting based on fabric by the metre, such as grain lines, notch marks, and seam allowance could be adopted.

The sampling method relates largely to the traditional idea of looking at fabric and the body as a grid of vertical and horizontal lines. However, the sampling approach provides a more symmetrical and neater (re)design, is easier to envision beforehand, produces a clear result, and is less vague than the mapping approach.



Figure 199. Sampling - searching for a skirt in a shirt using block patterns

The mapping method could be regarded as a more experimental tool for finding a 'new' design based on an 'old' one in that grain lines, notch marks, and seam allowance are not as important as in traditional pattern-making because mapping is primarily focused on making the garment-material flexible and ensuring that it stays in one piece, without removing seams and other significant details. This is the opposite of sampling, which 'releases' pieces of fabric from the garment.

Another reflection is that the processes of draping and searching for a form on a body or dress stand are different. When exploring a mapped and flexible material one may detect other things such as lines, seams, and details that are interesting to follow.

The result may look very complex, yet the process of transforming the material may have been simple. Another perspective on mapping is that it saves time, since unpicking seams is fairly time-consuming and can destroy the fabric. Moreover, by allowing the seams to remain intact and cutting into other parts of the garment-material, one can create new silhouettes and take inspiration from and retain existing angles and shapes embedded in the original garment.



Figure 200. Two examples of mapping, each produced by two different student.

The difference between sampling and mapping was explored through a one-day workshop with foundation-level design students at Tillskärarakademin in Malmö, Sweden During this workshop, it became evident that the different approaches served different purposes; moreover, they were each preferred by different types of students.

Those who wanted to be able to envision the result early in the process felt more 'secure' using the sampling approach. Those who preferred a more improvisational approach to form preferred mapping. It thus seemed to be a matter of taste, in terms of both the preferred way of working and the expression of the outcome. Sampling enables a more neat, symmetrical aesthetic, while mapping enables a more asymmetrical and voluminous aesthetics in terms of the garment-materials and pattern blocks at hand.

Reshape, dismantle, and rebuild - or?

In relation to the constant translation and transformation of materials, it is possible to miss the possibilities of smaller alterations when working with garment-materials. This occurred after the workshop explorations when reflecting on my experiences, when working with my own practice, and when working on behalf of fashion companies within the Re:textile project.

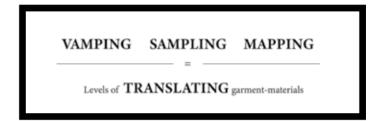
There are many ways in which smaller alterations could be made to garment-materials; for example, if a garment is too long it could be made shorter by making a new hemfold. Suit trousers could be made smaller by altering the seam allowance at the back. A plain sweater could receive a new print, and so on. But what do these small alterations actually achieve in terms of design?

Vamping

As is discussed in the chapter 9, vamping, this type of alteration can be undertaken in lots of different ways, and the results can look very different from one another. The approach can be employed on a relatively large scale, as was done in the Re:textile project. For example, the 'design adjustment' to make 'old become new again' could involve adding a small print on the chest of a sweater, and be easily scaled up even in terms of local production and a remanufacturing setup, as the collection produced by Cheap Monday and described in the chapter 'Vamping' shows (Fig. x).

In Borås there still exist several textile production facilities, which support workwear rental corporations with printing, embroidering, dyeing, and sewing services. Such companies are often contracted to add logos and the names of employees to workwear, for example. The machines used for such purposes could be part of the production of vamped garments. In essence, with different motives and using garment-materials rather than virgin materials, this process could become a local textile production chain for the redesign of products. As the original structures of such garments are barely altered, such an approach is more convenient, less labour-intensive, and easier to scale up and therefore more economically viable given the relatively high salary levels in Sweden. This also relates back to the 'technical perspective' mentioned at the outset of this chapter.

The various approaches can be described as follows:





Figur 201. Shows a visual explanation of the different redesign concepts.

The different redesign approaches presented in this thesis could be interesting to look at from a commercial point of view, in terms of how collections and product ranges can be divided and framed. A typical model for this is based on the shape of a triangle, which is something that I have seen in use during my time working at several companies as a designer.

The Base is where the volume lies, the 'carry-over' styles that are repeated over many seasons but updated with new colors and so on. The Trend is less a case of volume but still relatively fashionable, and expressive within the current trend and season. The Key consists of relatively few 'top products', which are intended to really pinpoint the trend – the 'spot on'.

This triangle model can be viewed in relation to pricing, with less expensive, basiclooking styles at the base and more expensive, expressive styles at the top. The different redesign approaches could also be placed in the same model.



Figure 202. How redesign approaches could fit the conventional design assortment model.

Having presented the redesign approaches in detail, let us look at earlier classifications of garment-materials in relation to sampling and vamping.

Sampling and vamping perspectives on designing using stains and torn areas (dirt)

When sampling pattern pieces from an existing garment, one could avoid dirty or damaged areas and exclude them from the redesign. Similarly, when cutting into garments to create small scraps, one could aim to use the garment as a patchwork, a 'roll of fabric', and exclude or discard dirty or damaged areas. However, these can function as a design guide when working with the vamping approach; they can be cut out and replaced with other materials, be covered with a patch, print, embroidery, or embellishment, or be highlighted and enhanced. Here, the defaults could be the starting point of the design activity that is used to transform the expression, but not necessarily the silhouette or structure, of the garment-material – hence, vamping.

The vamping approach can be used alongside an artistic craft perspective and a lot of time, attention, and work by hand invested in the material. However, it can also be used within a more industrial, tech-nical, and commercial approach, with digital printing and machine embroidery also being employed in relation to stained and torn areas.

COULD THESE REDESIGN APPROACHES BE USED WHEN LOOKING AT OTHER DESIGNER'S WORK, AND IN OTHER DESIGN FIELDS?



thing. In this particular example = purse + swan figurine. Photographer: Daniela Ferro.

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Figure 204. Helen Kirkum - a **sampling** approach: Kirkum hacks and reworks discarded and thrown-out sneakers. The self-described "sneaker collagist" picks, cleans, and disassembles the shoes into smaller components and then meticulously reconstructs the different parts inside out from the bottom up. Photographer: Rachel Dray for Helen Kirkum Archive Shoot 2019, the MA collection from 2016, VT42



Figure 206. Lendager Up - a **sampling** approach: The Upcycle Brick Modules, developed by Lendager Up in 2017, are made of old bricks salvaged from abandoned houses and industrial buildings. They are cut in square modules, stacked up, and reused as walls for new buildings. Photographer: Lendager. 494 ▮

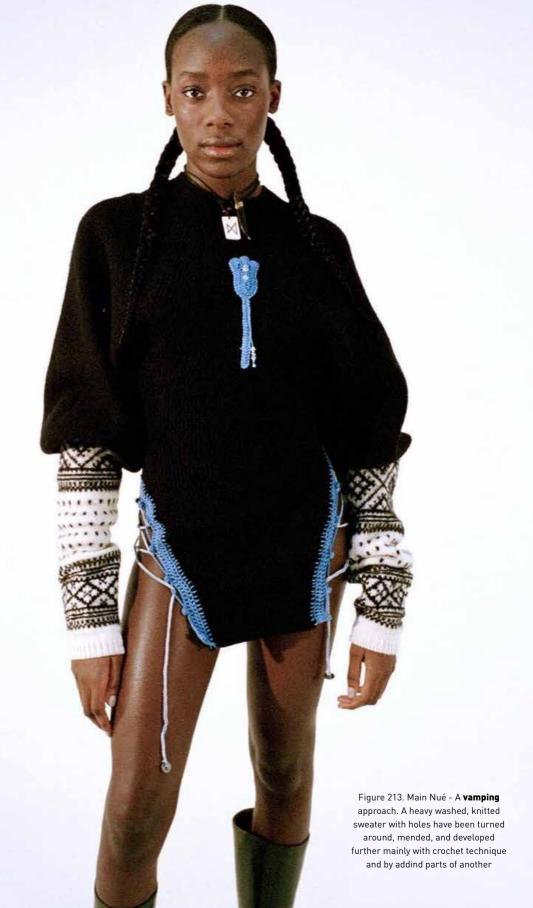








Figure 212. All-In-Studio - a **vamping** approach. Shoes vamped by belts.
Photographer: Benjamin Barron.





So what does all of this – the classification, expressive description, and act of redesigning with garment-materials – mean?

When you know which material to look for and how to work with it, the searching, seeing, and discovering of it may be more fruitful. For example, if you are set on sampling, then the search for and selection of materials that are suitable for that approach is relatively effortless. This perspective can be used on all sorts of materials, or if you have a specific colour, material, expression, or detail in mind. Thus, the design development of garment-materials with sampling in mind is framed: a pair of trousers might be the perfect garment-material with which to create a coat if a coat is what you are 'looking for'— the pattern pieces of a coat can be puzzled out and the significant features of the trousers, such as pockets, lining etc. can give an extra, expressive twist to the new design. Alternatively, the trousers' significant features can be completely deleted depending on the placement of the pattern blocks. The reverse is also true: as almost all redesign is based on the materials at hand, an investigation of garment-materials from a perspective that focuses on expression, quality, etc. may give indications as to which approach to use.

Harvesting materials – perspectives on sorting textiles for redesign.

The harvesting of garment-materials has implications for the development of methods and perspectives on sorting garments for redesign, both pre- and post-consumer waste. Different ways of identifying and categorising products could be used, focusing on silhouette, form, volume, style, trend, colour, pattern, print, graphic motif, brand, and logo. Product categories and garment types could also be used, e.g. shirts, trousers, dresses, T-shirts, jacket, towels, and blankets, as could genre, function, and occasion, such as formal, sports, winter, outdoors, summer, autumn, etc. Construction and fibre composition and type could also be in focus, e.g. cotton, polyester, wool, linen, and silk.

This could be explored in terms of a new design profession – sorting and sourcing garment-materials for redesign. This is also closely related to the ability to describe what these materials are, and further development of the 'swatch and caption' approach. Here, material descriptions focus on expressiveness, so the development of a richer redesign terminology could arise.

In addition to the three foundational and general concepts for redesign presented in this thesis – vamping, sampling, mapping, and translating – several other perspectives could be explored in relation to existing approaches, or be the basis for new ones. There are so many interesting designers and students working in the field, and their curiosity and artistic skills are central to the development of the redesign field and its implications for current waste streams. And the approaches presented in this thesis could be elaborated further in all sorts of design professions, not only within a fashion and textile context.

Dealing with the volatile and unpredictable flow of heterogeneous and surplus products that can be used as materials in remake and redesign processes generates a great deal of knowledge; this knowledge could be useful for designers who work in a conventional way and context to consider. What 'put to the market' means and how it functions within a cyclic system needs to be questioned. The expertise and knowledge of those who are skilled in transforming 'waste' into garment-materials could support such efforts.

A final question: why is it sometimes challenging to consider garments as materials from a fashion-design perspective? Is it because garments are thought of as the end point of creative and fabrication processes, and therefore regarded as complete, finished? This conclusion would suggest that the time has come to consider garments as both the starting points and finishing points of creative processmes . Hopefully this thesis can function as a foundation and guide for further explorations within the field of redesign and remake.

GARMENTS ARE OFTEN THOUGHT OF AS AN END POINT OF A DESIGN PROCESS, BUT NEEDS TO BE RECONSIDERED TO BE THE CREATIVE STARTING POINT.

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522 **Ⅰ**

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524 **■**

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