

A FASHION COLLECTION BY MATHIAS JUEL
COPENHAGEN SCHOOL OF FASHIN AND DESIGN

COPENHAGEN DENMARK
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UNTIL THE STAIRS ARE DOWN

I found that there has not been a lot of public research on how we can make clothes more durable. There has however been done a lot of research on measuring the durability of already made garments. A study published in 2024 titled: "A framework for measuring physical garment durability", looked into measuring the physical durability of garments through unbiased testing in comparison with retail pricing. The study found that price cannot be used as an indicator of durability which corroborated the conclusion of other scholars, who explored the relationship between price and durability on a smaller scale. After a consultation with one of the authors (Kate Morris) It became apparent that unfortunately the study did not take into account the construction of the garment ie. which seam and thread type was used during production. Most notably in the paper is that studies have shown that extending the lifetime of a garment can positively impact it's sustainability in ways of overconsumption. Extending the active life of garments by 3 months can lead to a 5-10% reduction in each of the carbon, water and waste footprints.

As the consumption of clothing increases consistently worldwide, and companies like Shein and Temu increase in popularity, there's a tendency in brands to compromise quality for mass production and lower cost. In today's society we don't have the same appreciation for our garments, we might have a few staple pieces in our wardrobe but a lot of our day-to-day wear is generally speaking used then thrown out or donated.

A big part of this problem is the consumers inability to assess quality and craftsmanship when purchasing a piece of clothing. They rely on their perception of brand values and add their perception of the brand to their product.

Looking at multiple studies there's a consensus that brands with a higher retail price are seen as of better quality, and brands with a cheap retail price are seen as lower or poor quality. Since the consumer generally speaking lack the knowledge to inspect the garment and conclude if it's quality materials and construction, people will usually rely on their own intuition to conclude its quality, and if it warrants the price tag.

In my final exam I've chosen to look at sustainability through durability. In doing so I am not setting out to create a sustainable collection. It is however a take on a key problem: overconsumption and lack of quality.

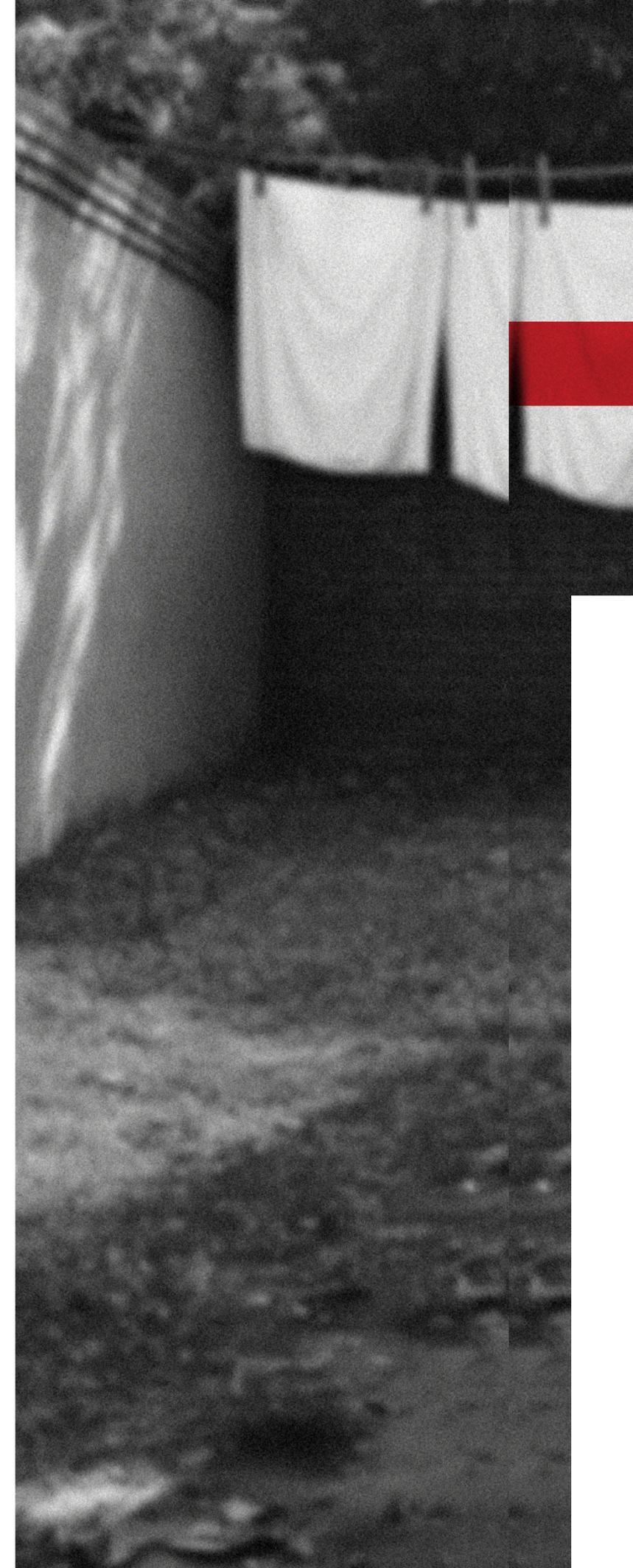
The fashion industry is a big living organism, with social media, fake news, greenwashing and a lack of transparency in CSR strategy and product journeys. What it means to be green is clouded in buzzwords and fancy labels, which makes it difficult for the average consumer to assess if a brand is truly working on being sustainable.

In order to look at sustainability in my collection it's important to look at personal beliefs and what I believe is feasible.

Personally I do not believe that the fashion industry will ever be 100% sustainable. There's too much money to be made on a global scale. A lot of brands start recycling programs for loyalty points or discounts, talk about how many trees they've planted or that it is eco-friendly, or they donate money to research in the area. However it is a losing battle as I believe that all brands are business first and the people wanting to go green aren't the ones with the power on the board, this is an assumption and not a statement.

Personally I believe that we have to look at one thing at a time. Right now i believe that overproduction and overconsumption are the biggest sinners in the fashion industry.

A study by Tim Cooper and Stella Claxton titled: "A study in garments and why they're discarded" looked at discarded items donated and deemed not fit for resale in the UK. They looked at 1476 items of discarded pieces of clothing that had been donated to UK charities but considered in not good enough quality or shape for resale. The garments were primarily bound for resale in Africa and Pakistan.





RESEARCH

It's important to note that in order to look at discarded garments and why they've been thrown out, we remove personal opinions and consumers from the equation. Garments are also discarded due to change in weight, or shape of the body, change in trends, or personal style changes. In this exam I will focus on the construction and materials and how to extend a garments lifetime through construction and materials.

In the study the most common reasons for discarding a garment were: 1. Color fading (jersey and woven fabric), 2. Pilling (jersey and knitwear), 3. Fabric breakdown (fraying and thinning especially in hems and crotch area), 4. Accidental damage (stains, tears, rips) 5. Loss of dimensional stability, 6. Logo failure, 7. Holes in seams. I've chosen to explain a little about the following categories: pilling, fabric breakdown and holes in seams.

Pilling: When fibres become loose and migrate to the surface of a fabric, they can become entangled and form into a small ball shape, this is due to the abrasion caused when wearing and washing the garment. In the study pilling affected a large part of the garments (55%) it was the primary reason for the items being discarded in the knitwear and jersey category.

The study goes into their solution: using a better quality fabric and construction. Especially with longer fibers and a tighter knit to reduce the risk of pilling. Along with education about proper wash care. Fabrics can also be treated to reduce the risk of pilling, an enzyme wash could make the fabric more durable but would come with drawbacks in the form of touch, feel and drape. A fabric with 100% natural fibres of a sufficient length with a closer knit, will make the garment less prone to pilling and if and when it should occur, it would be easier to remove.

Fabric breakdown: the most common problems in this category was fraying 39%, evidence of thinning 23% especially in areas like hems, shirt collars and the crotch of trousers. It is more likely to happen in lower quality fabrics, and in the crotch due to wear from opposite directional force when we walk, run or bike. It is especially true in tight fitting garments.

The study's solution to this problem is to use heavier fabrics blended with nylon or polyester, as it adds to the durability of the fabric. A tighter weave like twill will be more durable and resistant. As well as adding an extra cm of seam allowance in the construction. You could also reduce the risk by increasing the durability of the seams ie. with a double stitched or lapped seam.

Holes in seams: This affected 1 in 7 (14%) of all garments and was especially true in side seam of formal trousers, crotch in jeans and armpits of tops.

Their solution to this, was to make sure you use the correct thread and stitch for your fabric, adding bartacking to seams, using fusible thread and to increase seam allowance.





A study in durability and functionality through day-to-day wearable garments.

In an industry saturated with fleeting trends and performative sustainability, fashion's relationship with longevity has been largely overlooked. While extensive research exists on measuring garment durability, little has been done to actively improve it at the design level. Studies have shown that extending a garment's lifespan by just three months can significantly reduce its carbon, water, and waste footprints—yet most brands continue to prioritize profit-driven cycles of disposability.

Consumers, often lacking the technical knowledge to assess garment quality, rely on price and branding as indicators of durability. However, research confirms that price alone is not a reliable measure of longevity. Instead, common points of failure—such as seam breakdown, fabric degradation, and

color fading—reveal the urgent need for a shift in construction techniques and material choices.

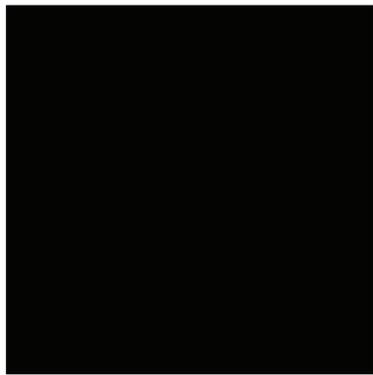
This collection redefines sustainability through endurance. Rather than focusing solely on production impact, it embraces longevity at a craft level. Inspired by the resilience of classic workwear, each piece is designed to be worn in, not worn out. Heavyweight fabrics, like canvas and denim, reinforced seams, waxed coating and timeless tailoring form the foundation of garments meant to stand the test of time—both functionally and stylistically.

Welcome to “Until death do us part”, a collection that challenges the disposability of fashion and invites you to rethink the way we buy, wear, and value our clothing.

SYNOPSIS

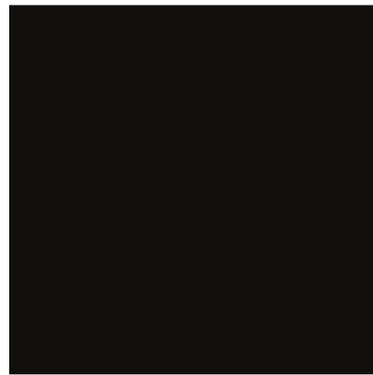


COLOR PALETTE



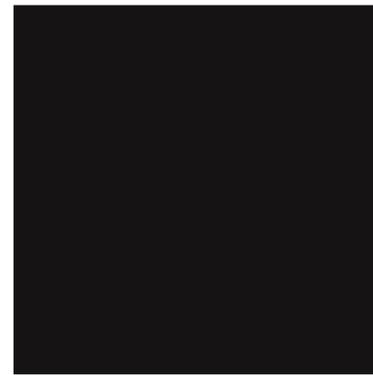
TUNNEL

Hex #000000
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HSB 0, 0%, 0%
CMYK 75, 68, 67, 90
Ink Type Process



DEEP BLACK

Hex #16100F
RGB 22, 16, 15
HSB 9, 32%, 9%
CMYK 70, 68, 67, 83
Ink Type Process



BLACK DEPTH

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RGB 22, 22, 22
HSB 0, 0%, 9%
CMYK 73, 67, 65, 80
Ink Type Process



PROCES BLACK

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RGB 23, 23, 23
HSB 0, 0%, 9%
CMYK 73, 67, 65, 80
Ink Type Process

The image features a dark, textured background that resembles a wall or a surface with a rough, mottled appearance. A prominent horizontal red line runs across the middle of the frame. The word "CONCEPT" is written in a bold, white, sans-serif font, centered horizontally and partially overlaid by the red line. The overall aesthetic is industrial and minimalist.

CONCEPT

The background is a dark, monochromatic image with a rough, textured surface, possibly concrete or stone, showing various shades of grey and black. A solid red vertical bar is positioned on the left side of the frame. Centered horizontally and partially overlapping the red bar is white text.

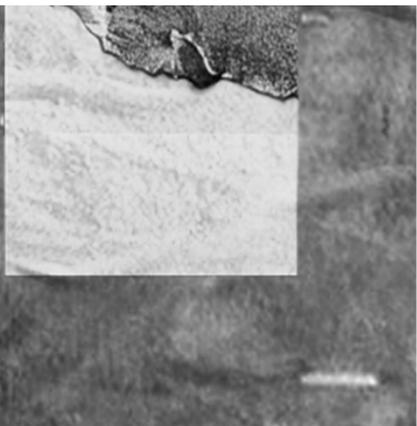
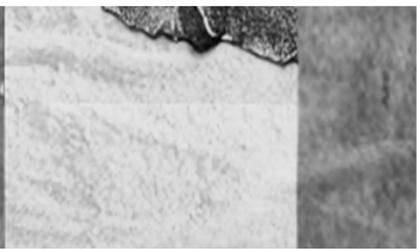
**A FASHION COLLECTION BASED ON DURABILITY AND FUNCTIONALITY
A STUDY IN CRAFTING GARMENTS TO EXTEND THEIR LIFECYCLE**

The background is a dark, monochromatic image of a rough, stone-like wall with a floor in the foreground. On the left side, there is a solid red vertical bar. To the right of the bar is a black silhouette of a dragon, shown in profile, facing right. The dragon has a long, curved neck, a tail with a hook-like tip, and spiky protrusions along its back and tail. The word "MOODBOARD" is centered in the middle of the image in a bold, white, sans-serif font.

MOODBOARD



CONCEPT



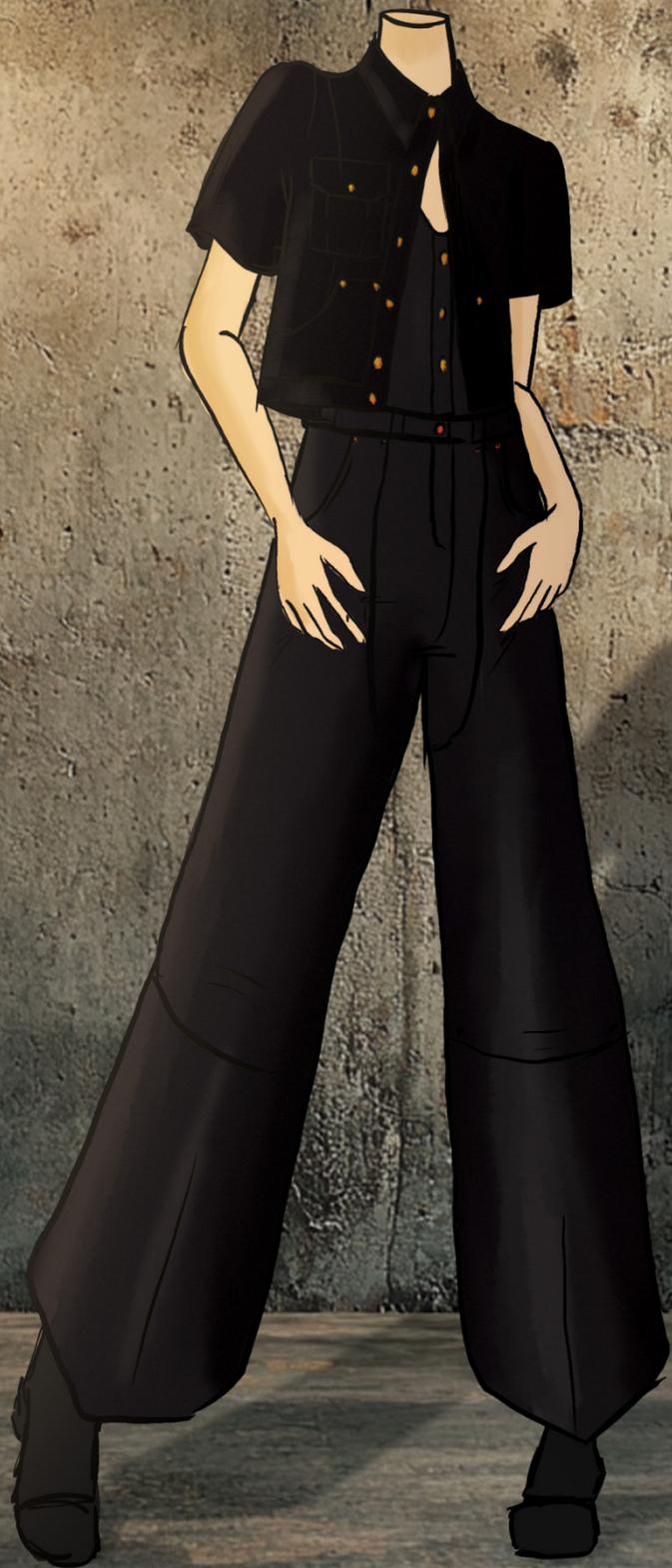
A dark, textured wall with peeling paint and a concrete floor, with the word 'FASHION' in white text.

FASHION

ILLUSTRATIONS

LOOK 5

STYLE 02
STYLE 14



LOOK 02

STYLE 12
STYLE 13
STYLE 24



LOOK 03

STYLE 08
STYLE 18
STYLE 28



LOOK 04

STYLE 07
STYLE 25



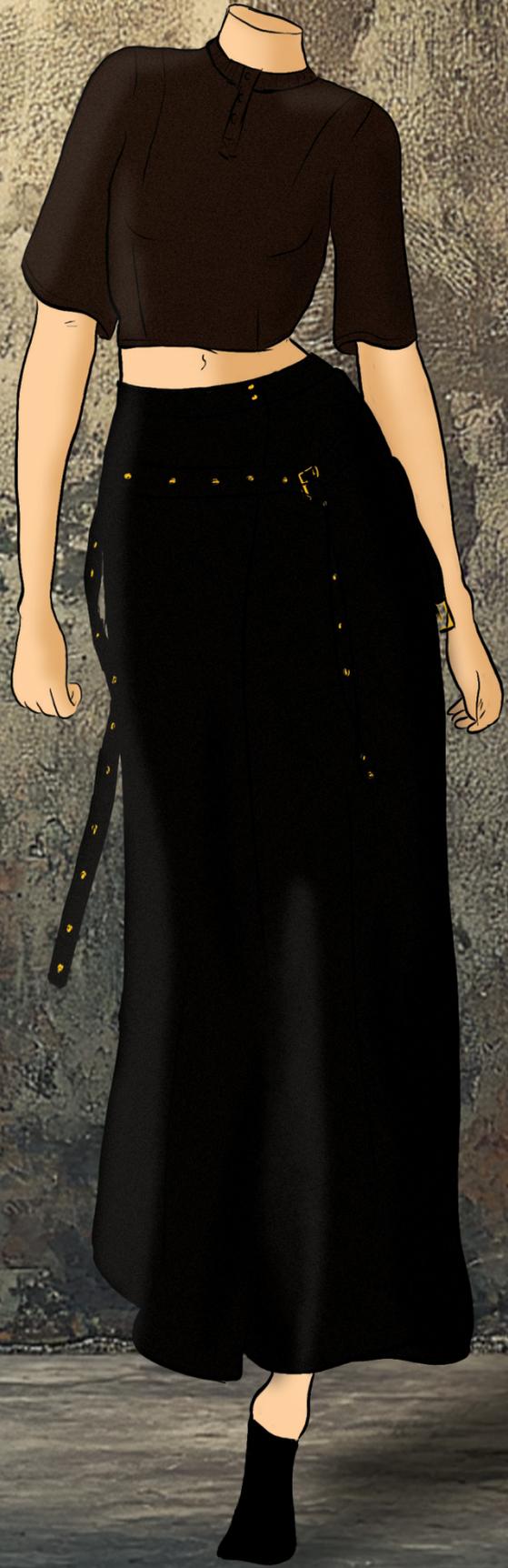
LOOK 05

STYLE 09
STYLE 29



LOOK 06

STYLE 08
STYLE 22



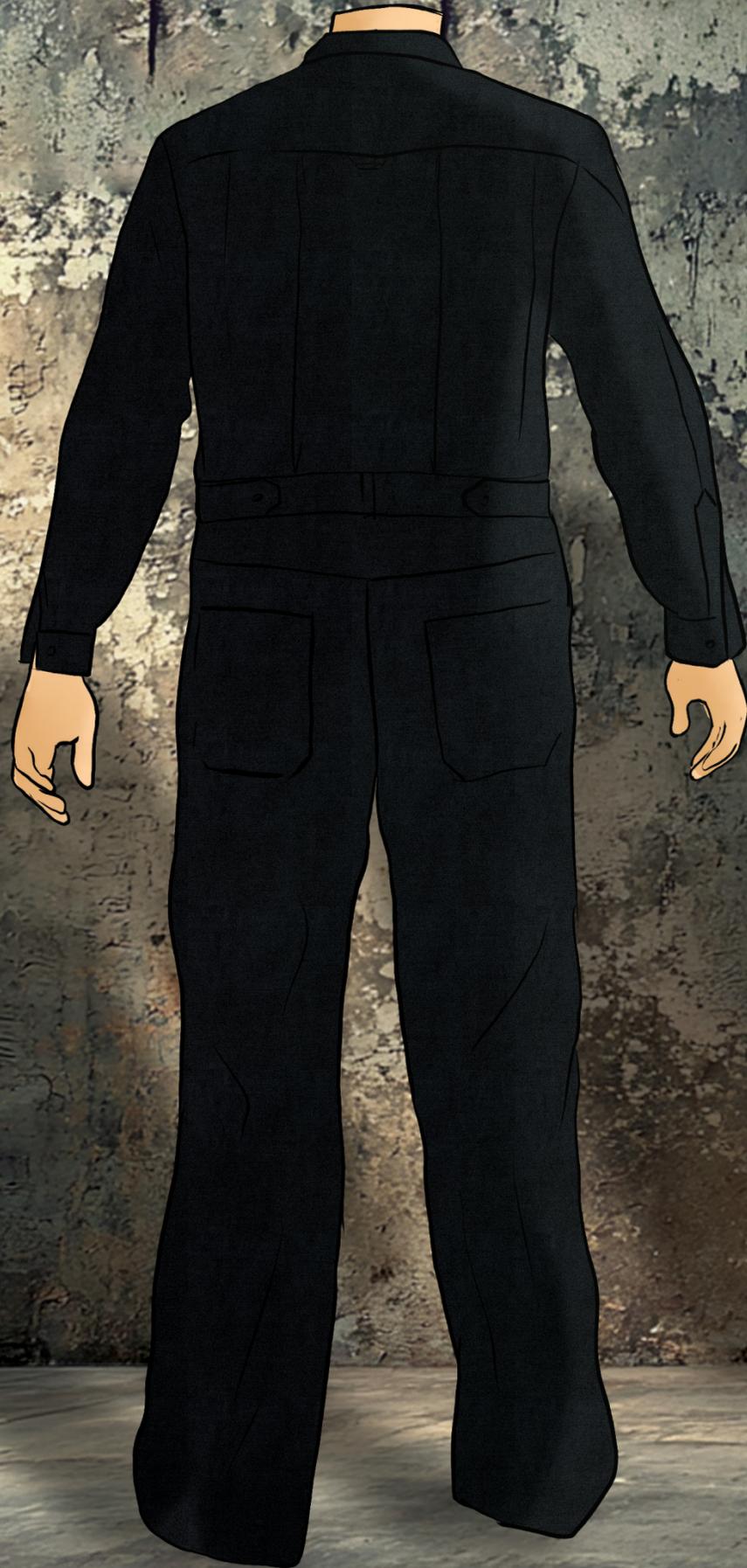
LOOK 07

STYLE 11
STYLE 21
STYLE 26



LOOK 08

STYLE 01



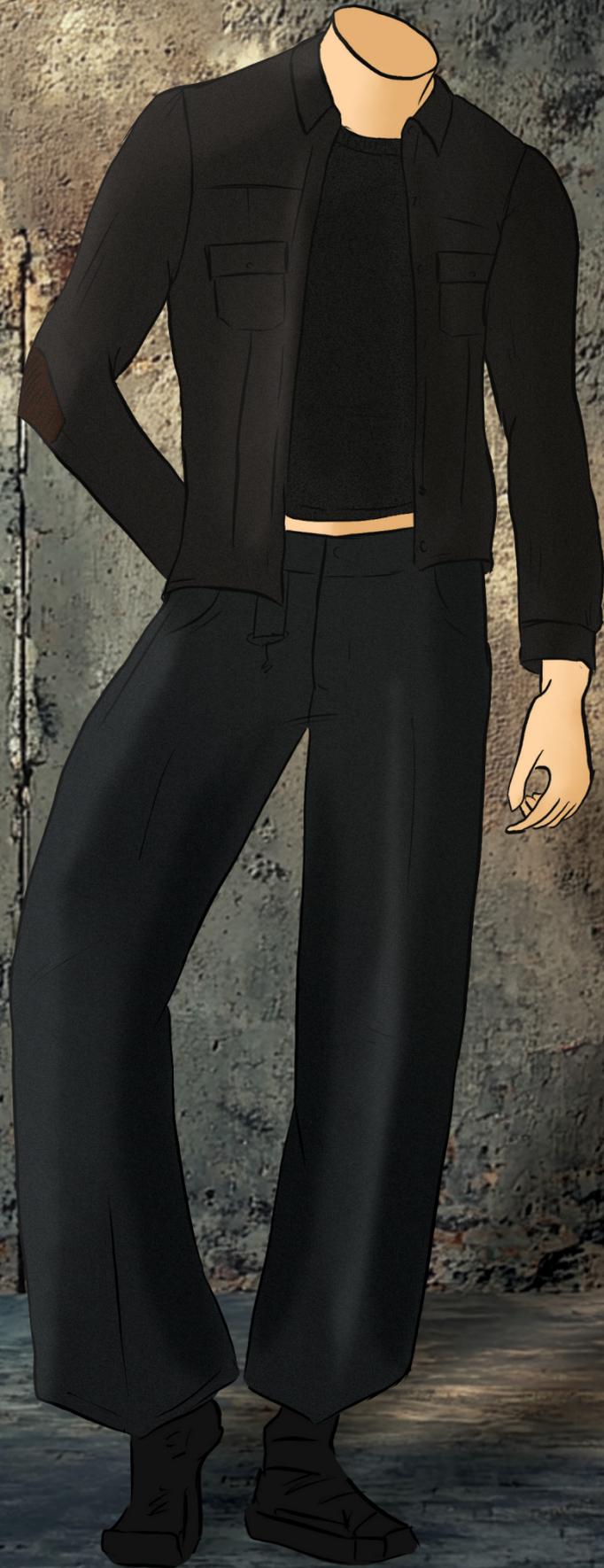
LOOK 09

STYLE 04
STYLE 16
STYLE 30



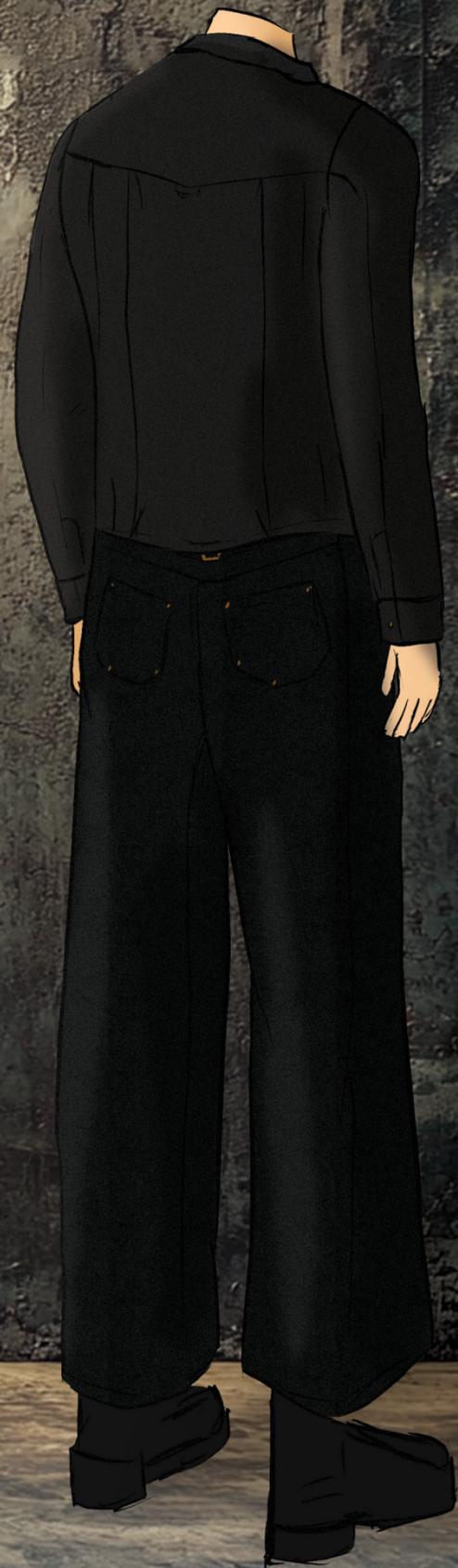
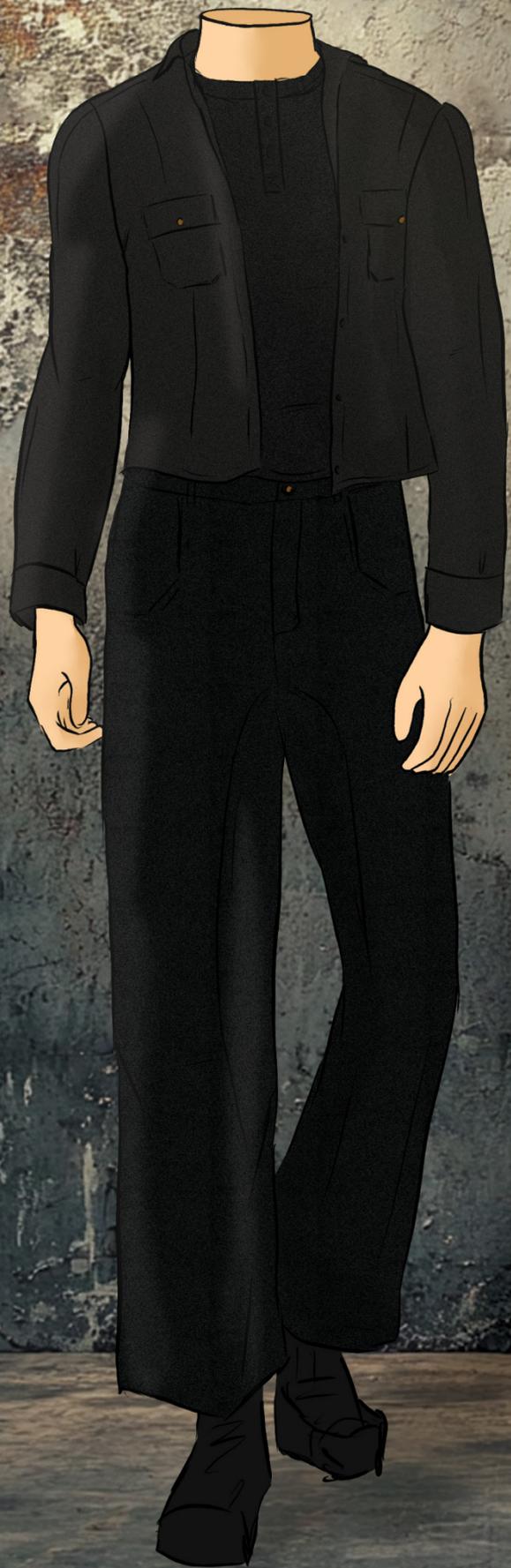
LOOK 10

STYLE 05
STYLE 17
STYLE 26



LOOK 1

STYLE 06
STYLE 20
STYLE 23



LOOK 12

STYLE 10
STYLE 19
STYLE 25



LOOK 13

STYLE 11
STYLE 15
STYLE 31



LOOK 14

STYLE 03





