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**The Slow Fashion Renaissance: An In-  
Depth Exploration of Crochet and  
Knitting as Sustainable Technologies for  
Contemporary Fashion**

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# Abstract

As people become more aware of environmental, resource and social issues, the concept of sustainability is reaching out to all industries to reduce their environmental impact and increase their moral influence. With today's fashion industry still dominated by fast fashion with quick production cycles, inexpensive clothing and low labor costs, there is a growing need for the fashion industry to move towards sustainable and environmentally friendly practices. In recent years, due to the massive lockdown of the COVID-19, industries were unable to utilize sufficient workforce, which affected the development of industries that require a large amount of labor, such as the fast fashion industry. At the same time, people are choosing to quarantine themselves at home for health reasons, and this has led to people exploring a variety of recreational options at home. Crocheting and knitting are two sustainable crafts that have been revitalized because they are easy to learn and highly portable. For this dissertation, the paradigm of slow fashion is explored in depth, focusing on the revival of two traditional crafts, crochet and knitting, as sustainable technologies for contemporary fashion with implications for today's fashion industry, environment, and society.

This thesis delves into the multifaceted nature of crochet and knitting, exploring their historical evolution and cultural significance. Through a meticulous study of archival records, literary sources, and other sources, this thesis illustrates the richness of these two crafts, tracing their historical origins and cultural resonance from antiquity to modernity.

At the core of this exploration is “slow fashion”, which is also a form of sustainable fashion. It includes the ethical production, the sustainable materials and the commitment to craftsmanship. By dissecting the principles of slow fashion, this thesis illuminates the intrinsic connection between these two crafts and sustainable practices. Additionally, this study explores the wide-ranging impact of crochet and knitting in the fashion industry and their integration with various design industries beyond apparel. From mainstream runway shows to niche independent designer labels to interior design

and even building materials, these crafts are versatile mediums for creative expression, facilitating the fusion of tradition and innovation.

In addition to their aesthetic and functional appeal, crochet and knitting have significant health benefits, especially for the brain. By analyzing medical research and anecdotal evidence, this thesis reveals the therapeutic effects of both crafts, including stress reduction, cognitive stimulation, and improved fine motor skills.

By interweaving historical narratives, contemporary perspectives, and scientific insights, this dissertation comprehensively explores the enduring significance of crocheting and knitting in shaping cultural identity, promoting sustainability, and enhancing overall health. The results of this research are intended to provide insights and recommendations for designers, manufacturers and consumers seeking to embrace the principles of slow fashion and contribute to a more sustainable future for the fashion industry.

**Keywords: COVID-19, historical origins, cultural resonance, slow fashion, sustainable crafts, crochet, knitting, design industries, health benefits.**

# Chapter 1

## Introduction

### **1.1 Overview of the thesis structure**

In an era characterized by the rapid pace of technological advancement and a culture of disposable consumption, crochet and knitting as the timeless crafts which prove the enduring power of human creativity, tradition and craftsmanship. From intricately patterned garments to cozy home textiles, these ancient practices are integrated into the global culture, crossing the time and geographic boundaries.

Chapter 2 explores the historical development and cultural significance of crochet and knitting. By delving into the origins of these crafts and tracing their evolution, we reveal tradition and innovation, utility and artistry, and the impact they have had on society.

Central to our exploration is the concept of slow fashion, which has become the counterpart to the fast-paced, mechanized mass-produced garments that dominate the fashion industry today. Embodying the principles of ethical production, sustainability and conscious consumption, slow fashion advocates a return to handmade techniques and quality craftsmanship. Chapter 3 focuses on crochet and knitting as the quintessential embodiment of slow fashion in the context of today's fast-fashion dominated fashion industry, reflecting its sustainability and respect for tradition.

Chapter 4 introduces examples of the use of crochet and knitting techniques in various well-known fashion brands as well as niche brands. It is worth noting that during the COVID-19 pandemic, many designers used crochet and knitting techniques to pioneer or develop new directions in their careers. In addition, our research goes beyond the field of fashion to examine the various practices of crochet and knitting in other areas of design. From interiors to textile art, these two handcrafted techniques serve as versatile mediums for creative expression, fostering innovation and pushing the boundaries of traditional design.

Moreover, as we delve into the impact of crochet and knitting, we discover their unexpected contributions to health and well-being. Chapter 5 describes that in addition to the aesthetic and functional appeal of crochet and knitting, these crafts have therapeutic effects, ranging from stress reduction to cognitive stimulation, enriching the lives of practitioners and enthusiasts alike, and allowing followers to understand and learn about these two handmade arts.

## **1.2 Thesis purpose and goal**

The aim of this paper is to provide a comprehensive study of the historical development, cultural significance, environmental impact and contemporary relevance of crochet and knitting, as well as their wider impact on the design industry and health to demonstrate their role in the promotion of slow fashion. Through interdisciplinary inquiry, the research aims to illuminate the intricate interplay between tradition and innovation, craftsmanship and sustainability, as exemplified by these timeless crafts.

The main purpose of this study is to deepen our understanding of crochet and knitting as dynamic cultural practices that go beyond mere utility to serve as vehicles for artistic expression and community building. By exploring their historical roots and tracing their evolution, we seek to reveal the sustainable values and ethical principles embedded in these crafts, revealing their resilience and adaptability in a changing world.

## **1.3 Methodology**

The research for this paper utilizes both the literature review and the case study methods. The paper is divided into four broad thematic sections: the historical evolution of crochet and knitting, the relationship between crochet knitting and slow fashion, the use of crochet and knitting in the design industry, and the health benefits of crochet and knitting.

This thesis references literature about crochet and knitting to understand the historical development of both techniques and their cultural significance. It then focuses on slow fashion and refers to a wide range of literature in order to explore the positive effects of crochet and knitting on the sustainable development of the fashion industry. The

application of crochet and knitting in various design industries is also analyzed to demonstrate the contribution of crochet and knitting to sustainable fashion and slow fashion. A number of case studies also provide the positive health benefits of crochet and knitting.

#### **1.4 The contribution and the expected result**

The contribution of this dissertation lies in its comprehensive exploration of crochet and knitting as slow fashion crafts and sustainable fashion practices, cultural practices that intersect with issues of sustainability, design innovation, and overall well-being. By synthesizing historical research, cultural analysis, and scientific inquiry, this study provides a nuanced understanding of the multifaceted significance of these crafts and their potential to contribute to the sustainability of the contemporary fashion industry. A key contribution of this study is its elucidation of the role of crochet and knitting in the framework of slow fashion. By revealing the principles of slow fashion and examining how these crafts embody its values of ethical production, sustainability and conscious consumption, we contribute to the ongoing discourse around modes of fashion production and consumption that prioritize craft and environmental ethics. By exploring the various applications of crochet and knitting beyond the fashion industry, it contributes to a broader understanding of their creative potential and their ability to inspire innovation across a variety of design disciplines. Investigations into the therapeutic benefits of crochet and knitting for health and well-being contribute to emerging research into the intersection of craft, creativity and mental health. By highlighting the evidence-based benefits of these crafts, it is possible to bring greater understanding and support to both crafts in support of slow fashion.

# Chapter 2

## The historical evolution of crochet and knitting

### 2.1 The traditional practice and cultural significance of crochet and knitting

#### 2.1.1 The definition of knitting

Knitting is a technique that produces a two-dimensional fabric of a textile fabric by interweaving or knotting a one-dimensional yarn coil with a coil of other yarns. It is used to make many types of clothing, which can be done by hand or machine.

There are two broad categories of knit textiles: weft and warp (*Alamac Knits, 2007*). The knitting machines we commonly used and hand knitting are of the weft knitting type. Weft knitting allows the creation of a whole cloth from a single yarn by sequentially attaching stitches to each wale and working across the fabric like a raster scan (*Yordan Kyosev, 2019*). In contrast, each wale in warp knitting requires a single yarn. Lingerie frequently uses textiles that are knitted on the warp.

A stitch produced by knitting, especially in hand knitting, in which a row of yarn coils can be flat and in a V-shape, is called knit. While, If a row of yarn coils is rounded in a convex shape, the stitch is called a purl (Figure 1). These two stitches are the basic stitches of hand-knitting, and mastering these two stitches allows you to try other complex stitches, such as rib stitch (Figure 2).

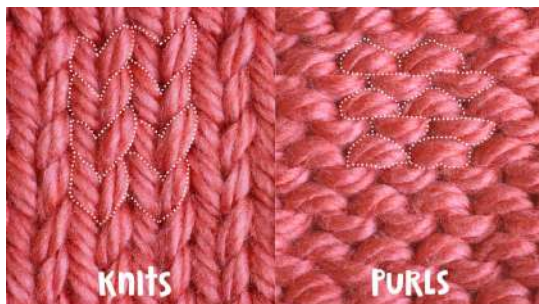


Figure 1. Knits and Purls

Source: <https://sheepandstitch.com/library/how-to-purl-stitch-in-knitting-for-beginners/>



Figure 2. Rib stitch

Source: <https://nimble-needles.com/tutorials/knit-vs-purl/>

The knitting needle often has a large number of active stitches at once. Knitted fabric is made up of several linked loop rows that are intermingled with one other and with preceding rows. The yarn in knitted fabrics follows a meandering path, forming symmetric loops, which intermesh with the next and previous rows and can be easily stretched in different directions (Figure 3). As a result, it makes knitted fabrics more elastic than woven fabrics compared to knitted fabrics where the warp and weft threads are straight. And the connecting loops of the new row are not fixed, so that even if a mistake is made during the knitting process, each row of the knit can be easily dismantled.

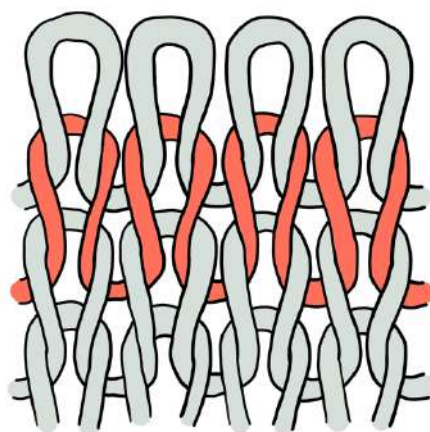


Figure 3. Knitting Structure

Source: <https://support.kniterate.com/hc/en-us/articles/360012870438-Knit-Purl>

### 2.1.2 The tools of hand knitting

Knitting needles are tools used in hand knitting to produce knitted fabrics. They usually have a long shaft with a tapered end but are not as sharp as sewing needles, and are intended to be easily drilled through each loop.



Figure 4. Single-pointed needle

Source: <https://viridianyarn.com/product/knitpro-the-mindful-collection-single-pointed-needles-coming-soon/>



Figure 5. Double-pointed needle

Source: <https://ysolda.com/blogs/journal/learn->

The single-pointed needle is the type of needle that is most often known. It is a thin, straight stick with a knob at one end to keep the stitches from coming loose. It tapers to a point at one end (Figure 4). The straight double-pointed needle is the most ancient kind of needle. Double-pointed needles may be knitted from either end since they are tapered at both ends. They are widely used for circular knitting and are usually offered in sets of four or five. They have been mostly used to knit smaller tube-shaped items like socks, collars, and sleeves ever since the circular needle was invented. Two needles are usually in use, with the leftover stitches being held by the other needles (Figure 5). Circular needles may be used for both flat knitting and knitting in the round. They are made up of two straight, pointed needles joined by a flexible cable. The tips might consist of cables and replaceable tips, or they could be fixedly attached to the cable. This makes it possible to mix different lengths and diameters to create a wide range of needle sizes, meeting a wide range of demands with a small number of component components. The two ends of a circle are utilized in the same way as two separate needles for knitting flat pieces of cloth. Consequently, the knitter's arms and wrists would not be as burdened by the weight of the cloth as it would be divided more equally. Especially when knitting tubular fabrics, it is safer to use circular needles than double-pointed needles (Figure 6).



**Figure 6.** Circular Needles

Source: <https://www.craftsy.com/post/a-guide-to-circular-knitting-needles/>

In addition to traditional knitting needles, there is another type of hand knitting called spool knitting also known as French knitting (Figure 7). Rectangular bobbins or circular bobbins with a number of pegs around the edges are used to produce sheet or tubular

fabrics, respectively. The spool knitting tools are also called knitting spools or French knitters. The technique to use is to loop the yarn twice around each peg on the spool. Stitches are then made by lifting the bottom loop of yarn over the higher loop and off the peg. Next, the yarn is wrapped around the whole loom, causing each peg to have a fresh top yarn. Until the project is finished, this process is repeated. The size of the fabric depends on the size and shape of the spool. For example, a knitter can use a round spool for a hat and a rectangular spool for a scarf.



Figure 7. Spool Knitting

Source: <https://academic-accelerator.com/encyclopedia/spool-knitting>

### 2.1.3 The history of knitting

The word “*Knit*” is derived from old English “*cnyttan*” which means to tie with a knot, bind together, fasten by tying, or related to old Norse “*knytja*” which means bind together, from into a knot, it also related to middle low German “*knütten*” which means to tie and knot (*Online Etymology Dictionary, 2001*).



Figure 8. Nålebinding socks

Source: <https://www.vam.ac.uk/articles/the-history-of-hand-knitting>



Figure 9. Ancient Egypt socks

Source: <https://www.vam.ac.uk/articles/the-history-of-hand-knitting>

Although the origins of weaving are unclear, it has been practiced in many different parts of the world over the centuries, producing beautiful objects as well as items to

meet practical needs. The oldest artifact with a knitted appearance is a type of sock (Figure 8). These socks and other clothing relics were worked in “*Nålebinding*”, a technique for making fabric by creating multiple knots or loops with a single needle and thread (Hubert, 2015, p.07). The oldest known real-knitting examples, which were formed on two sticks by pulling loops through loops, are cotton Coptic socks found in an Egyptian tomb dating to around 1000 AD (Figure 9) (Hubert, 2015, p.07). And these socks, of which only many fragments remain, are composed of white and indigo yarns with intricate geometric patterns.

Most histories of knitting place its origin somewhere in the Middle East, and from there it spread to Europe by Mediterranean trade routes and later to the Americas with European colonization (Zilboorg, 2000). Additionally, the knitting was initially observed in nations that engaged in colonization and marine commerce. Margaret Hubert introduced in her book “*The Complete Photo Guide To Knitting*” that:



**Figure 10.** Cushion cover

Source: <https://www.vam.ac.uk/articles/the-history-of-hand-knitting>

The earliest known knitted items found in Europe were made by Muslim knitters employed by Spanish Christian royal families. Their high level of knitting skill can be seen in several items found in tombs in Abbey of Santa María la Real de Las Huelgas, a royal monastery near Burgos, Spain. Among them are the knitted cushion covers and gloves found in the tombs Prince Fernando de la Cerda, who died in 1275 (Figure 10) (Hubert, 2015, p.07).

However, at this stage, the knit artifact was still a rare item, made from imported silk

and cotton. In the meanwhile, knitting in the round on many knitting hooks was used to create the knitted fabric. Several European paintings from the 14th and 15th centuries depict the Virgin Mary and knitting, including “The Buxtehude” by Mater Bertram of Minder (Figure 11). This also indicates that knitting began to spread in Europe, and became known and gradually integrated into the life of local residents.



**Figure 11.** The Buxtehude

Source:

[https://en.wikipedia.org/wiki/History\\_of\\_knitting](https://en.wikipedia.org/wiki/History_of_knitting)



**Figure 12.** The stocking of Eleanora de Toledo

Source: <https://evashistoricalcostumes.blogspot.com/2015/06/the-knitting-insanity-has-begun.html>

[knitting-insanity-has-begun.html](https://evashistoricalcostumes.blogspot.com/2015/06/the-knitting-insanity-has-begun.html)

The first known purl stitches appear from the mid-sixteenth century in the red silk stockings in which Eleanora de Toledo, wife of Cosimo de' Medici (Figure 12)(Hubert, 2015, p.07). Knitted from yarn-covered thread, these stockings also include one of the oldest known lace designs. Wool was the primary material used to make early tights, but stockings were more supple, pleasant, elegant, and ornamental than wool. Stockings gained popularity and importance as a fashion accessory during the medieval era as knitting methods advanced.

With the high demand, more and more people started to work in these various industries at that time. Queen Elizabeth I was the first known woman to wear stockings in recorded history. This rapid growth of stocking knitting during Elizabeth's reign led to the first schools for teaching knitting (Rutt, 2003). During that time, knitting was frequently considered as a means of preventing trouble and alleviating poverty.

The knitting industry has changed as a result of the development and ongoing improvement of knitting machines as well as the industrial revolution brought about by the mechanization of production, there are also many modern knitting machines. As a

result, more and more factories are turning to machine knitting in place of hand knitting in an effort to save money. These days, hand knitting is more of a recreational activity.

#### 2.1.4 The evolution of knitting technique

Early knitting machines were more for making socks. William Lee, an English priest, invented the first knitting machine in 1589, also known as a stocking frame, in order to improve the efficiency of knitting socks (Figure 13).

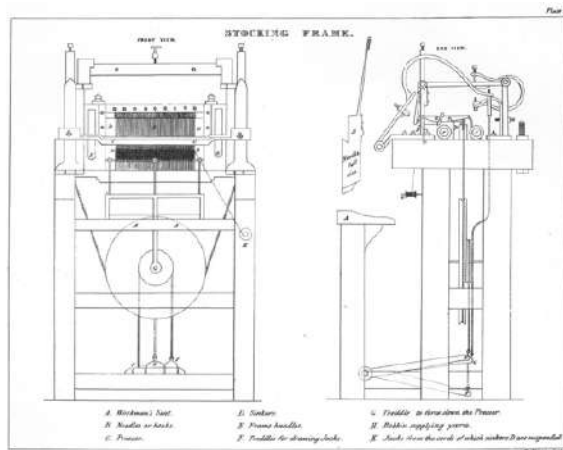


Figure 13. The Stocking Frame

Source:

<https://the1764shepherdess.com/2024/01/18/the-year-1589-a-knitting-machine-was-invented/>

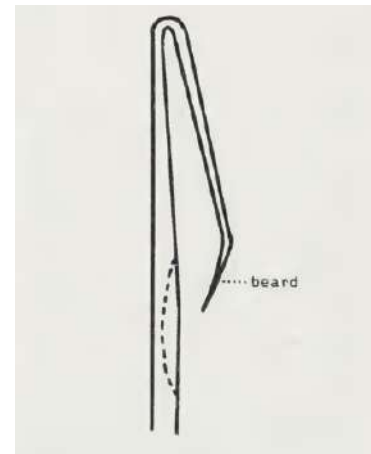


Figure 14. The beard needle

Source: How to Recognise Machine Laces (1995)

The essence of his invention was to equip each loop with a separate needle and to coordinate their movements so that the thread passes through them horizontally, so that a number of needles could be made to work together at the same time to knit a whole row of loops, instead of knitting them one after the other in succession. Modern knitting machines, both domestic and industrial, still use the stocking frame principle invented by William Lee:

The machine's working parts consisted of needles with a reflexed tip known as a beard. The needles were mounted on a short straight bar projecting horizontally in a direction away from the knitter. The weft orientated thread was laid across them so that it could be made to enter the beards (Figure 14). The needle tips were then closed by pressure, and the needles moved backwards through the old loops, causing these to slide forwards over their bearded heads, forming a new course of the web (Earnshaw, 1995, p.13).

In the 18th century, Jedidiah Strutt invented the Derby ribbing machine in 1757 (Figure

15). This ribbing machine was a converted stocking frame with a metal attachment that produced ribbed stockings. The ribbing machine used 3 plain stitches and 1 purl stitch to work, which means a vertical needle after every third horizontal needle (*Earnshaw,*



**Figure 15.** The Stocking Frame

Source: <https://www.belpernorthmill.org.uk/collections/our-favourite-things/the-knitting-frame/>



**Figure 16.** The latch needle

Source: <https://cottonworks.com/en/topics/sourcing-manufacturing/knitting/single-knits-3/>

1995, p.18). This machine can use both knit stitch and purl stitch to create a textured effect through the combination of these two types of stitches, which improves efficiency while enriching the pattern and texture of the fabric, making it tighter and softer.

In 1764 Thomas Morris and John Morris, along with John Betts and William Betts, continued to improve the knitting machine by stitch transfer which equivalent to knit two stitches together to make an eyelet, shifting and using it to make lace and patented it (No. 807)(*Earnshaw, 1995*). Until the middle of the 19th century, the knitting machine was a modification of the original hand frame invented by William Lee. It was only in 1847, Matthew Townsend invented a different needle called latch needle, which contributed to the rapid development of circular knitwear, including socks (Figure 16) (*East Midlands Knitting, 2016*). The commonly used knitting machines, including flatbed knitting machines also use the latch needles.

Modern Domestic and Industrial Knitting Machines are flat knitting machines versus circular knitting machines, both of which use the weft knitting method to produce fabrics similar to hand-knitting, where the knitting process is faster than hand-knitting, and where each stitch is operated individually in the row. Take a contemporary flatbed knitting machine as an example, this type of flat knitting machine consists of a machine

tool with more than 200 latch needles, a carriage that slides laterally from side to side and other components (Figure 17). This type of knitting machine can be used with a single flatbed for rectangular fabrics, with a double flatbed for tubular fabrics, as well as for jacquard patterns through the use of punch cards.



**Figure 17.** Contemporary home flatbed knitting machine

Source: <https://www.gardenintheshade.com/2024/01/24/buying-and-learning-how-to-use-a-flatbed-knitting-machine/>



**Figure 18.** Circular knitting machine

Source: [https://en.wikipedia.org/wiki/Henry\\_Josiah\\_Griswold](https://en.wikipedia.org/wiki/Henry_Josiah_Griswold)

Circular machines are also similar in principle to the spool knitting mentioned earlier, in that they are first cast on in the round on a circular machine, and then the ends of the rows of stitches are joined to form a circle. The knitting is done in the round (equivalent to rows in a flat knitting machine), forming a tube by spiral winding, and requires manual rotation of the machine for circular knitting, hence the name of this type of machine, the hand circular knitting machine (Figure 18). Domestic circular knitting machines were known as “Griswold” in England because of Madison, Connecticut

resident Henry Josiah Griswold (1837–1929) (*Old Tyme Stockings, 2000*). The invention of the Griswold circular knitting machine greatly improved the efficiency of sock making at the time and had a profound effect on later generations of circular knitting machines.



**Figure 20.** Contemporary home flatbed knitting machine

Source: <https://www.uniqlo.com/au/en/news/topics/2019031401/>

With the emergence of computer technology, digitalization is also deeply carried out in the production of knitwear, knitting machine technology has been continuously improved. Uniqlo uses professional “WHOLEGARMENT” equipment designed in Japan to make 3d sweaters and dresses (Figure 20). It uses seamless technology to produce a complete piece in three dimensions to improve the contour of the garment, and the equipment only uses the required amount of yarn to weave the product to reduce material waste to achieve sustainability (*UNIQLO, 2022*).

### **2.1.5 The cultural significance of knitting technique**

Knitting techniques have been practiced around the world for centuries and also have deep cultural significance in many areas.

The unique knitting method known as “Fair Isle knitting” was developed on Scotland's Isle of Fair Isle (Figure 21). It is renowned for its vibrant designs and complex geometric patterns. In order to produce designs, the Fair Isle knitting typically requires more than two colors, which are alternated within the same row. Commonly, this knitting technique is used to make mittens, caps, jumpers, and more. It is said that the original patterns were first learnt by the girls of Fair Isle from Spanish sailors who were shipwrecked there in 1588 during the Spanish Invincible Armada (*Feitelson, 2009*). The

rise in popularity of Fair Isle knitwear in the 1920s is often credited to the Prince of Wales (the future Edward VIII who abdicated his throne to marry the American divorcee Wallis Simpson) , who wore a Fair Isle jumper on the golf course in 1922 (Figure 22)(Feitelson, 2009, p.26). Fair Isle knitting was and still is a skill used to make a living. Economic survival is the real reason for the large number of skilled knitters in Fair Isle knitting and in the Shetland Islands.



**Figure 21.** Fair Isle sweater

Source:

<https://www.pdfknittingcrochetpatterns.com/listing/647338971/childrens-fair-isle-sweater-and-hat>



**Figure 22.** The Prince of Wales wore Fair Isle jumper

Source:

[https://en.wikipedia.org/wiki/Henry\\_Josiah\\_Griswold](https://en.wikipedia.org/wiki/Henry_Josiah_Griswold)

The little Scottish island of Fair Isle has an extensive history of culture that is reflected in Fair Isle Knitting. Since fair isle knitting has been a source of revenue for local artists, it has also contributed to the island's sustainable economic growth. The art of creating beautiful, vibrant patterns inspired by the island's natural beauty has been preserved through the process that has been passed down from generation to generation. This relationship with the natural world is a reflection of a deep affection for the island's surroundings.

### **2.1.6 The definition of crochet**

Crochet is a process of making textiles by using crochet hooks to interlock strands of yarn, thread, or other material.

To start crocheting textiles, put a slip-knot loop on the hook, thread another loop through the first, and continue until you have a chain that is the right length. Either the chain is rotated and worked in rows, or it is worked in rounds after being slipped

stitched to the beginning of the row. Another way to make rounds is to work many stitches into a single loop. Pulling one or more loops through each loop in the chain creates a stitch. At any one time at the end of a stitch, there is only one loop left on the hook (Figure 23). Crochet can be performed on a flat surface or in a circular, much like knitting. Except Tunisian crochet and broomstick lace, which can keep multiple stitches open at one time.



Figure 23. Crochet

Source: <https://sarahmaker.com/how-to-crochet/>

Typical crochet stitches are the single crochet (known as the short stitch in China), the half-double crochet (known as the medium-length stitch in China) and the double crochet (known as the long stitch in China). These basic stitches cover the same horizontal distance, but they differ in height and thickness.

### 2.1.7 The tools of crochet

Crochet needles, sometimes called Shepherds' hooks, are made of steel, ivory, or box-wood. They have a hook at one end similar in shape to the barb of a fish-hook, by which the wool or silk is caught and drawn through the work (*Lambert, 1842, p.93*). Nowadays, crochet hooks are always composed of plastic, wood, or metal (Figure 24). Since sizes are categorized according to the diameter of the crochet hook shaft, the artisan's goal is to make stitches of a certain size to achieve a particular gauge specified in a given pattern and the crocheter also adjusts the tools according to the diameter and thickness of the crochet hook or yarn.

The previously mentioned Tunisian crochet is a special stitch of crochet, which uses a long, thin crochet hook, usually with a hook at the end of the crochet hook, which is

known as the Afghan crochet hook (Figure 25).



Figure 24. Crochet hooks

Source: <https://www.swakknit.com/blogs/swak-blog/crochet-hook-anatomy/>



Figure 25. Afghan crochet hooks

Source: <https://www.fruugo.it/long-crochet-hook-set-11pcs-tunisian-crochet-hooks-multicolor-afghan-crochet-needles-for-crocheting-2mmb-8mml-great-knitting-crochet-supplies/p-68883307-138516757?language=en>

### 2.1.8 The history of crochet

Crochet derived from the French word “crochet” means "small hook or canine", abbreviated to “croc”, and possibly from Old Norse “krokr” means “hook”, of unknown origin but possibly related to the widespread Germanic “kr-” words means “bent, hooked” (*Online Etymology Dictionary, 2018*).

Crochet has a relatively short history and no obvious origin. Knitted textiles survive from as early as the 11th century CE, but the first substantive evidence of crocheted fabric emerges in Europe during the 19th century (*Paludan, 1995, p.177*). At the time, crochet was used more for lace. The word crochet subsequently came to describe both the specific type of textile, and the hooked needle used to produce it (*Levey, 2004, p.11*).

A book discussing crochet that began to appear in the 1840s states:

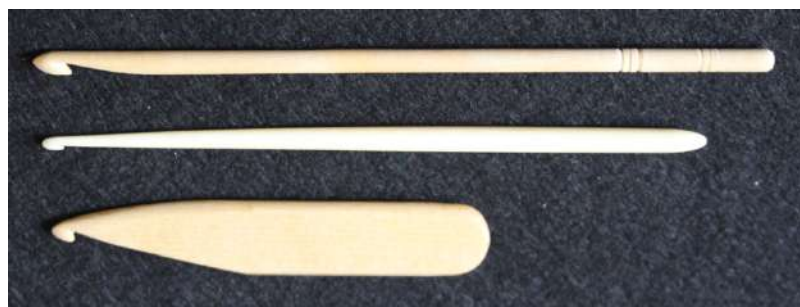
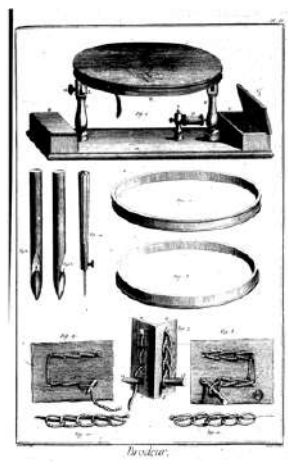


Figure 26. Shepherd's crochet hook

Source: <https://commons.wikimedia.org/wiki/File:Tapered-hooks.png>

Crochet, — a species of knitting originally practised by the peasants in Scotland, with a small hooked needle called a shepherd's hook (Figure 26), —has, within the last seven years, aided by taste and fashion, obtained the preference over all other ornamental works of a similar nature. It derives its present name from the French; the instrument with which it is worked being by them, from its crooked shape, termed 'crochet.' This art has attained its highest degree of perfection in England, whence it has been transplanted to France and Germany, and both countries, although unjustifiably, have claimed the invention (*Lambert, 1844, p.9-10*).



**Figure 27.** French tambour embroidery in 'Diderot's Encyclopedia'

Source: [https://en.wikipedia.org/wiki/Crochet#/media/File:Encyclopedie\\_volume\\_2-140.png](https://en.wikipedia.org/wiki/Crochet#/media/File:Encyclopedie_volume_2-140.png)

It has been speculated that crochet may have originated from drum embroidery, which was introduced to France from China in the early 18th century. A comprehensive illustration of French tambour embroidery was included in 'Diderot's Encyclopedia' in 1763 (Figure 27). The needle tip seen there is identical to the tip of a modern inline crochet hook, and the chain stitch detached from a fabric support is a key component of the later method.

### **2.1.9 The cultural significance of crochet technique**

Crochet is deeply intertwined with tradition and heritage. It is often passed down from generation to generation within families or communities as a means of preserving cultural identity and craftsmanship. Irish lace has always been an important part of the Irish embroidery tradition which made by crochet (Figure 28).

Irish nobles like the well-known philanthropist Lady Arabella Denny promoted the developing business and increased the sale of Irish lace overseas by leveraging their

social and political ties (*Sonneller, 2016*). Lace was a luxury item at the time, used to adorn elaborate wedding dresses, christening robes and church vestments, and it played a crucial role in keeping many families from starvation and poverty. Especially in the 1840s, when Ireland was facing the Great Famine, crochet lace-making became an alternative way of earning money for the poor Irish workers of the time.



**Figure 28.** Shepherd's crochet hook

Source: <https://www.crochethistory.com/books/early-history-of-irish-crochet-lace/>



**Figure 29.** Local women crochet for Iota

Source: <https://www.dezeen.com/2017/03/15/iota-crochet-furniture-income-unemployed-women-milan-design-week-2017/>

Additionally, crocheting contributes to economic empowerment as it can be used to create and sell handcrafted items, which may be a source of economy. Particularly for women worldwide, this financial contribution has the potential to economically and socially empower people as well as communities. Iota is a Tel Aviv furniture brand founded in 2014 by Tal Zur and Shula Mozes and works with local communities with high unemployment. The company's team trains local women in crocheting and offers

them jobs as part of its commitment to sustainability and social assistance. The goal is to provide women a source of money so they may feel more independent in the home. Iola designed and launched a range of petal-shaped cushions, stools and rugs crocheted from customized yarns and exhibited at Milan Design Week 2017, which are also crocheted by local women (Figure 29).

## 2.2 The difference between crochet and knitting

The most obvious difference between crochet and knitting is the difference in tools. While knitting usually uses two needles to hold all the loops in place, crochet uses only a single tool (with the exception of the Tunisian crochet). Crochet is easier to learn than knitting, also because crochet hooks are usually smaller than knitting needles, therefore crochet is more portable.

Knitted and crocheted stitches are different. Knit stitches form a "V" shape, whereas crochet stitches consist of multiple twisted loops and are more like knots, so knitting gives the fabric better elasticity, whereas crochet products are stronger and stiffer than knits (Figure 30).



Figure 30. Knitting stitch compare with crochet stitch

Source: <https://nimble-needles.com/tutorials/knitting-vs-crochet/>

## 2.3 The shift in fashion concepts and adoption of knitting and crochet

### 2.3.1 The shift in adoption of hand knitting and crochet

With the advent and continued development of knitting machines, plain hand knitting and crochet are in decline as part of the knitting industry and continue to be passed on

simply as a hobby.

In the 1920s, knitwear gained popularity throughout most of the western world. Knitwear, especially pullovers and sweaters, played a significant role in the new era's trends for men, women, and kids. In the 1920s, Fair Isle knitwear saw a golden period. Knitwear was also adopted by haute couture, with Coco Chanel using it heavily into her designs (Figure 31).



Figure 31. Coco Chanel vintage knitwear

Source: <https://www.pinterest.com/pin/4208057774273573/>

During the First and Second World Wars, hand weaving returned to popularity and reached a peak due to the shortage of supplies and the high demand for them at the time. Large quantities of garments and accessories were knitted to clothe the soldiers at the front (Figure 32).



Figure 32. Local women crochet for Iota

Source: <https://www.dezeen.com/2017/03/15/iota-crochet-furniture-income-unemployed-women-milan-design-week-2017/>

After the end of the World War, the economy and science and technology developed rapidly, and the knitting industry was dominated by high-efficiency, high-volume

machine knitting. Especially after the garment industry entered the era of fast fashion, the production of all kinds of garments continued to increase, and knitting machines for industrial use were improved and strengthened. The increased availability and low cost of factory machine knit products in particular meant that consumers could buy a jumper for the same cost as buying their own wool and patterns, or often much cheaper, and as a result the popularity of hand knitwear began to decline dramatically.

It's essential to emphasize that home knitting machines are becoming a necessary equipment for hand knitting. Hand knitting is gradually starting to gain popularity due to the internet and the popularity of DIY projects. An increased interest in DIY culture has been fueled by the growth of social media and internet platforms. Online resources like Pinterest, TikTok and YouTube offer a wealth of knitting and crocheting patterns, tutorials, and inspiration, making it simpler than ever for newcomers to pick up these skills and meet like-minded others.

A number of reasons have been suggested for the change in the popularity of crochet and knitting, including shifts in the social environment and people's perspectives, the influence of new-age social media, concerns about sustainability, and the need for self-care and customization. In particular, crochet and knitting have seen a resurgence in popularity in recent years as a craft that can be done at home due to the epidemic of COVID-19. As long as these crafts continue to change and evolve to suit contemporary preferences and lifestyles, they will grow in popularity.

### **2.3.2 The shift in fashion concept of hand knitting and crochet**

The fast fashion industry has dominated the fashion industry thanks to the low cost, high return and high output of its products, but the development of the fast fashion industry has also led to many environmental problems.

As awareness of environmental issues grows, so does concern for sustainable fashion. Crochet and knitting as a low energy process enables designers to create garments using renewable and biodegradable natural fibres such as wool, cotton. In addition, both processes often involve reusing yarn waste or using recycled materials, further reducing waste.

The fashion industry's appreciation for handmade and artisanal products is growing by

the day. Crochet and knitting offer a unique aesthetic characterised by intricate textures, patterns and craftsmanship. Designers are increasingly incorporating these techniques into their collections, adding a unique tactile element to their work. Knitting and crocheting are centuries-old crafts with deep connections to culture. Fashion manufacturers may appeal to consumers' emotions of heritage and nostalgia by integrating these strategies into their creations.

# Chapter 3

## Slow fashion and its principles with crochet and knitting

### 3.1 Fast fashion

Fashion before the 1800s was a sophisticated process. Fashion related items were handmade, such as clothing, hats, and shoes. When it came to textiles, for instance, the hard and time-consuming process involved locating resources like wool, cotton, or leather, processing and preparing these materials by hand, and then weaving or shaping them into useful clothes. The first industrial revolution began with the textile industry, and with the introduction of sewing machines and looms in the 1860s, it was possible to increase the speed at which textiles were produced. Further technological advancements allowed the clothing industry to perfect its production machinery, and the emergence of synthetic fibers made clothing easier to make, more affordable, and more widely available for purchase.

As more and more people reject the clothing customs of bygone eras and adopt these new trends. Fashion manufacturers started expanding their manufacturing lines globally, employing low-cost labor, to fulfill the growing demand for inexpensive apparel while also increasing profits.

Fast fashion has developed from a product-driven concept based on a manufacturing model referred to as "quick response" developed in the U.S. in the 1980s (*Lowson, King, & Hunter, 1999*). The fashion industry did not transition to a market-based "fast fashion" business model until the end of the 1990s, particularly with the rise and expansion of fast-fashion stores like Zara and H&M.

The mechanization of the fashion industry and its refinements and advances have also facilitated the ability of retailers to quickly launch seasons of clothing (Figure 33). Sull and Tortoni's article "Fast Fashion Lessons" claims that one of Zara's success factors is

that it has established a production network and supply chain that allows it to outsource its labor force while maintaining sophisticated, capital-intensive internal operations, such as, computer-guided fabric cutting (*Sull & Turconi, 2008*).



**Figure 33:** Jackets from Zara’s fall 2012 collection await inspection at a factory in Arteixo, Spain.

Source: <https://www.nytimes.com/2012/11/11/magazine/how-zara-grew-into-the-worlds-largest-fashion-retailer.html>

Fast fashion has transformed the way people purchase clothes in addition to enabling rapid manufacture, making clothing more easily available and convenient than before. With only a few mouse clicks, customers can now explore and buy apparel from fast fashion companies anytime, anywhere thanks to the growth of e-commerce and online shopping platforms. Furthermore, quick fashion chains like Zara and HM frequently have several locations worldwide, making it simple for customers to locate reasonably priced clothes alternatives nearby so they can stay up to date with trends.

Fast fashion has been economically successful for the global retail industry and the fast fashion industry is a major industry in many countries, especially in some developing countries. According to the “Fast Fashion Global Market Report 2023”, the fast fashion industry was estimated to be worth \$25.1 billion globally in 2020. It is anticipated to develop at a compound annual growth rate (CAGR) of 21.9%, making it a \$31 billion market by 2021 (*Itid, 2023*). Fast fashion brands thrive economically primarily through low labor and material costs for manufacturers. For a standard T-shirt, just 0.5 pounds of cotton fabric are needed, and these cotton textiles are less than \$1 (*California Cotton Ginners & Growers Association, 2022*). According to a 2019 MVO Netherlands reported, the starting monthly salary for Ethiopian manufacturing workers for H&M, Gap, and JCPenney is \$32, while the monthly compensation for experienced workers

is \$122 (Khurana & Muthu, 2021). China, India, Vietnam, and other emerging nations are seeing a large influx of manufacturers, bringing with them jobs and revenue. These nations and areas have a big labor force, which has reduced labor costs and generated significant profits for the fast fashion business (Figure 34).



**Figure 34:** Vietnam apparel factory

Source: <https://www.wsj.com/articles/vietnams-factory-shutdowns-tug-at-apparel-industrys-seams-11630661403>

Fast fashion retailers are able to rapidly adapt to emerging fashion trends and offer a wide range of styles, colors and designs and bring them to market as quickly as possible. The availability of inventory and constant rotation provides consumers with a diverse selection of clothing that caters to different tastes and preferences. Retailers often have a large online presence and a global supply chain, enabling consumers around the world to keep up with the latest fashion trends.



**Figure 35:** Zara Sale

Source: <https://ny.racked.com/2014/6/20/7591093/zara-sale>

Fast fashion increases accessibility and inclusivity for a broader audience,

democratizing the fashion industry. Because fast fashion is so reasonably priced, a larger range of people which from various socioeconomic backgrounds and geographic locations can afford to purchase apparel items. It dispels the elitism typically connected to high fashion and gives people from various backgrounds a means of expressing their individuality and sense of style via their wardrobe (Figure 35). Fast fashion, a low-cost, large-scale, effective, and extremely successful business strategy, thereby controls the fashion industry.

## **3.2 Environmental and social issues raised by fast fashion industry**

### **3.2.1 The negative effects of synthetic fibers**

All textiles are made from fibers. The use of fibers extracted from animals (including wool, rabbit fur, and silkworms) and plants (including cotton and hemp) is called natural fibers. It wasn't until the discovery of petroleum in the early 20th century that natural fibers in clothing were gradually replaced by man-made fibers such as acrylic, nylon, polyester, and polypropylene (also known as synthetic fibers). Although synthetic fibers are known for better durability and cheaper manufacturing, they are obtained from petroleum products and like all synthetic fabrics require complex processing procedures, as well as causing environmental pollution during production. The yearly consumption of fiber for apparel amounts to 69.7 million tons globally – around 110 kg per capita (2010), synthetic fibers represent almost two-thirds (60.1 %) of this consumption (*FAO & ICAC, 2013*).

This is despite the fact that synthetic fibers are affordable and even have good properties that can replace natural fibers. For example, acrylic fibers are strong and warm, and they are commonly used in textile products such as sweaters and sweatshirts, but they are much less breathable than natural fibers and release toxic fumes into the air and atmosphere during the manufacturing process. Most people are not involved in the yarn production process, but these harmful fumes can affect the health of the workers involved and pollute the air. The other most commonly used and prevalent synthetic fabric in garments now available on the market is polyester (Figure 36). Its primary component, polyethylene terephthalate (PET), is derived from petroleum and takes

hundreds of years to decompose. Polyester fibers have the potential to create a wide range of health issues, including skin irritations including itching, redness, and rashes. One of the biggest problems with synthetic fibers is that they are essentially a form of plastic, the production of which consumes large amounts of petroleum, a non-renewable resource that takes hundreds of millions of years to form. Producing plastic-based fibers for textiles uses an estimated 342 million barrels of oil every year (*Ellen MacArthur Foundation, 2017, p.38*). Synthetic yarns are often colorless and need the use of hazardous chemical dyes to provide color. The chemicals used in the production processes for fibers and textiles, such as dyes or finishing treatments, also account for a significant amount of resource use – around 43 million tones in total (*Ellen MacArthur Foundation, 2017, p.38*).



**Figure 36:** Polyester yarn factory

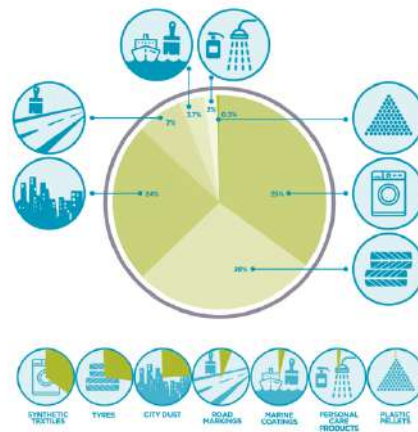
Source: <https://www.saludstyle.com/yarn-factory/polyester-yarn-factory/>

The production of synthetic fibers is not only harmful to the environment and health, but also has limited methods of destruction and recycling. Overall, the production of synthetic fibers is harmful to the environment and health.

### **3.2.2 Fibers and microplastic pollution**

Microplastic pollution has become one of the most serious global challenges of our time. An estimated 12.2 million tons of plastic enter the global marine environment every year. Of this, an estimated 3.2 million tones are primary microplastics, particles smaller than 5 millimeters in size that are released directly into the environment (*IWTO, 2020*). For the textile industry, environmental pollution by fibers and fragments in textiles (so-called “microfiber pollution”) is a growing concern, while pollution by plastics is the

biggest and most pressing challenge facing the global textile industry.



**Figure 37:** Global releases of primary microplastic to the world oceans

Source: “Primary microplastics in the oceans: A global evaluation of sources” (2017) by Julian Boucher, Damien Friot

A significant source of the microplastic pollution is the loss of fibers from garments to wastewater during washing (Napper & Thompson, 2016). Because most of today's clothing is made of synthetic fibers, which are a type of plastic, soon or later, they turn into microplastics. A scientific studies have shown that up to 6 million microplastic fibers can be released from a typical 5 kg wash of polyester fabric (IWTO, 2020). A 2017 report by the International Union for Conservation of Nature (IUCN) estimated that 35% of all microplastics (very small pieces of plastic that do not biodegrade) in the oceans come from the laundering of synthetic textiles such as polyester (Figure 37).

Cotton Incorporated is a non-profit research organization funded by cotton growers and importers that provides resources and research to help develop quality, innovative and profitable cotton products. They decided to research the degradation of cotton fabrics in three different water environments with Cotton Research & Development Corporation and North Carolina State University in 2017. The two-year study was designed to determine the degradation rates of cotton, polyester, cotton/polyester blends and rayon in three different aquatic environments (wastewater treatment plants, freshwater and seawater) over 250-day period.

The results of the study showed that cotton fabrics degraded 76% in wastewater, rayon 60%, cotton and polyester blends 40%, and pure polyester fabrics only 4% (Figure 38). Cotton fabrics and rayon performed better in freshwater environments, degrading 86% and 83%, respectively, while cotton and polyester blends degraded only 37% and

polyester fibers were not degraded at all (Figure 39). In the salt water environment, all fabrics degraded less, but polyester fiber remained 0% degraded (Figure 40). In all aqueous environments tested, the aquatic degradation rate of cotton was faster than the terrestrial degradation tested for cotton textiles, and polyester fibers, and cotton microfibers degraded significantly faster than polyester or cotton/polyester samples in the same environments (*Cotton Incorporated & Vulcan, 2019*).

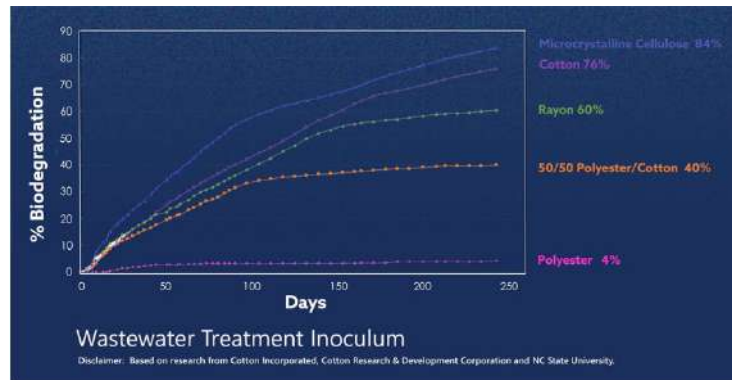


Figure 38: Waste Water treatment chart

Source: <https://cottontoday.cottoninc.com/how-quickly-do-textile-microfibers-degrade-in-aquatic-environments/#>

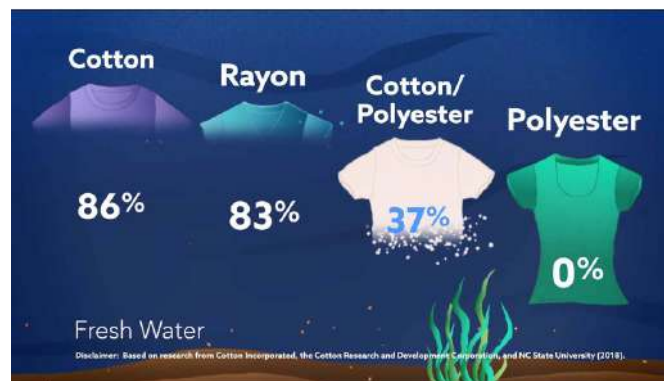


Figure 39: Fresh Water Comparison Chart

Source: <https://cottontoday.cottoninc.com/how-quickly-do-textile-microfibers-degrade-in-aquatic-environments/#>

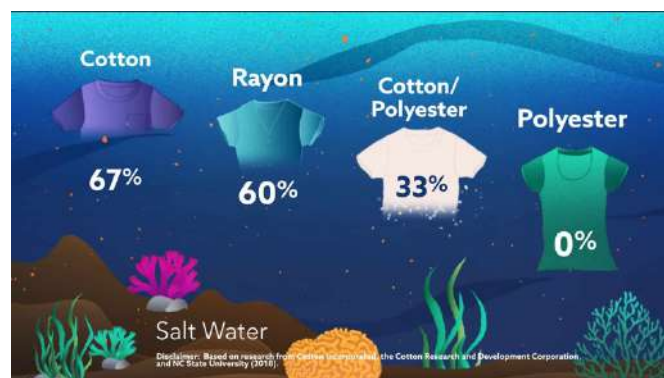


Figure 40: Salt Water Comparison Chart

Source: <https://cottontoday.cottoninc.com/how-quickly-do-textile-microfibers-degrade-in-aquatic-environments/#>

### 3.2.3 Carbon Footprint in the Apparel Industry

Carbon footprint refers to climate change or global warming potential and includes a measurement of the potential impact on climate change of greenhouse gas emissions associated with a product, process or organization. The fashion industry, especially fast fashion, has had a huge environmental impact on the earth and society since its emergence, with carbon being emitted all the way from the production of clothing to its consumption to its recycling and disposal. In 2015, greenhouse gas (GHG) emissions from textiles production totaled 1.2 billion tones of CO<sub>2</sub> equivalent, more than those of all international flights and maritime shipping combined (*Ellen MacArthur Foundation, 2017, p.20*).

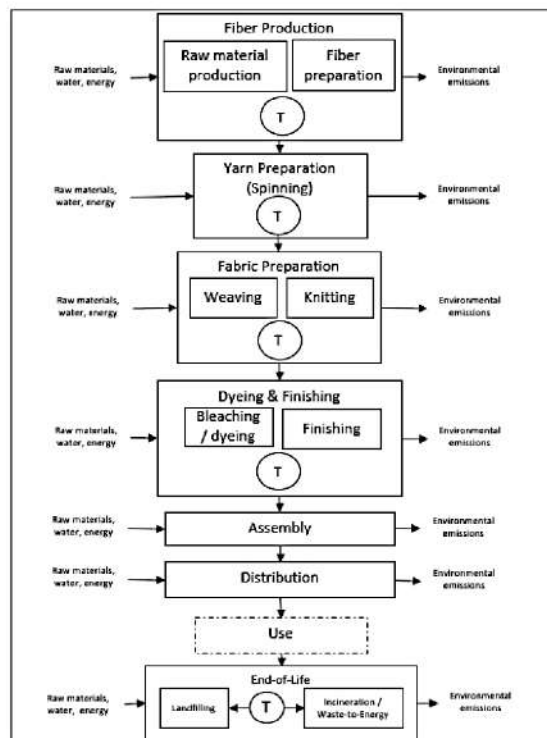
	%	MILLION METRIC TONS CO <sub>2</sub> eq
Apparel	6.7%	3,290
Footwear	1.4%	700
<b>Total apparel &amp; footwear impacts</b>	<b>8.1%</b>	<b>3,990</b>
Compared to:		
Total global CO <sub>2</sub> eq impacts	100%	49,300

**Figure 41:** Total apparel & footwear industries’ impacts compared to total global impacts in 2016 (provided both in % and million metric tons CO<sub>2</sub>eq)

Source: “MEASURING FASHION 2018 Environmental Impact of the Global Apparel and Footwear Industries Study Full Report and Methodological Considerations” (2018) by Quantis

In 2018, a report called “Environmental Impact of the Global Apparel and Footwear Industries Study” used 2016 as the baseline year to explore the impact of the apparel industry. The report shows that the apparel industry alone accounts for 6.7% of global climate impact (3.29 billion tons of carbon dioxide equivalent) (Figure 41). The report also summarized the global apparel system’s life cycle (Figure 42). The chart studied the impact of the apparel industry along the entire value chain, including fiber production, yarn preparation, fabric preparation, dyeing and finishing, assembly, distribution, use and end-of-life. In an effort to provide as complete a picture of the system as possible, the research takes into account all the variables influencing carbon

emissions at every step of the life cycle. The study also takes into account the effects of transportation on the environment, including the effects of extra procedures and inputs related to the production of gasoline, in addition to emissions from shipping and trucking. The report notes that transportation only accounts for 3% of the apparel industry's impact on climate change, but that this impact would be significantly bigger if companies decided to shift from road to air transportation, with a shift from ocean to air transportation leading to a 35% increase in carbon emissions (*Quantis, 2018*).



**Figure 42:** The life cycle of the global apparel system

Source: “MEASURING FASHION 2018 Environmental Impact of the Global Apparel and Footwear Industries Study Full Report and Methodological Considerations” (2018) by Quantis

The raw materials, water and energy used at each stage of the production process are converted into carbon dioxide, which is then emitted into the atmosphere. Specifically, the production of synthetics such as nylon and polyester has a far greater environmental impact than natural fibers. Transportation is an integral part of each stage, which is part of what makes fast fashion "fast". Transportation vehicles release large amounts of carbon dioxide into the atmosphere when transporting goods. As you can see, the carbon footprint of the apparel industry is huge, as is its environmental impact. As the fashion industry truly enters the era of 'fast fashion', this development comes at a price,

even though it brings more jobs and boosts the global economy. However, the overall state of the fashion industry can be characterized as an environmental and social emergency, and controlling the fashion industry's carbon emissions is also an important part of the fashion industry's sustainable future.

### **3.2.4 Textile waste in the apparel industry**

The democratization of fashion in the fast fashion industry has led to an increase in consumer demand for clothing. Fast fashion retailers are able to bring the newest fashion elements to the malls as quickly as possible for consumers to choose from, for example, the world famous fast fashion brands Zara and H&M, with Zara launching 24 new clothing lines per year and offering them to more than 2,000 stores worldwide, and H&M launching 12 to 16 lines per year and offering them to more than 4,500 stores worldwide. With the growth of the internet and the advent of social media, fast fashion retailers are taking this approach to attract consumers. Initially, the sole purpose of social media was to serve as a platform for people to connect with other users around the world. However, social media has become a way for retailers to market their products and influence consumer behavior (*Michaela & Orna, 2015*). The marketing model will lead to more and more people chasing fashion trends, just focusing on fashion trends and style diversity and engaging in irrational consumption, ignoring the utility of the garments themselves, in some cases not even wearing them at all so that the full utilization of the garments declines, with customers purchasing more garments than they use and throwing them away soon after use.



**Figure 43:** The textile waste

Source: <https://pirg.org/california/articles/the-fashion-industry-waste-is-drastically-contributing-to-climate-change/>

Despite the fact that fast fashion plays a significant part in the global economy and that retailers have adequate inventory to match consumer demand, textile waste has long been a global issue (Figure 43). Globally, customers miss out on USD 460 billion of value each year by throwing away clothes that they could continue to wear (*Ellen MacArthur Foundation, 2017, p.19*). Because fast fashion is “fast” and inexpensive, many of the items have poor quality. As a result, they are worn out quickly before being thrown away, burnt, or dumped in the trash. 85% of textiles go to landfills, equivalent to 21 billion tons per year (*UNECE, 2018*). In along with biodegradable natural fibers, the majority of synthetic fibers used to make these abandoned clothes are plastics. Due to their low recycling rates, these discarded fiber materials will release harmful substances during the incineration process, and their landfilling will result in plastic pollution of the surrounding area. Less than 1% of material used to produce clothing is recycled into new clothing, representing a loss of more than USD 100 billion worth of materials each year (*Ellen MacArthur Foundation, 2017, p.20*).

### **3.2.5 Labor concerns brought up by the fast fashion sector**

The fashion industry is the most labor-dependent industry, and textiles require a large amount of labor to process and produce, especially in today's fast-fashion-driven industry. Rapid changes in fashion trends mean that manufacturers are under pressure to produce garments faster and faster, the manufactures are expected to produce new lines with months of notice, which means that the workload of the labor force , and the employment opportunities they can provide for workers, are unpredictable and insecure. Fast fashion companies frequently outsource manufacturing to low-wage nations with inadequate labor rules in order to keep production costs down and turnaround times quick. This may result in inadequate compensation, long working hours, unsafe working conditions, and the denial of labor rights for garment workers.

In 2021, the top partner countries for U.S. textile and apparel imports include China, Vietnam, India, Bangladesh, and Mexico (Figure 44). Bangladesh is a country known for its cheap labor, with 4 million garment workers in more than 5,000 factories, 85 % of whom are women (*Bangladesh & Stotz, 2015*)(Figure 45). Bangladesh also has the lowest minimum wage of any nation that exports garments. According to 2019 study

by MVO Netherlands, the starting monthly salary for Ethiopian laborers who produce goods for H&M, Gap, and JCPenney is \$32, while the monthly compensation for an experienced worker is \$122 (*Khurana & Muthu, 2021*).



**Figure 44:** The top partner countries for U.S. textile and apparel imports

Source: [https://wits.worldbank.org/CountryProfile/en/Country/USA/Year/2021/TradeFlow/Import/Partner/all/Product/50-63\\_TextCloth/Show/Partner%20Name:MPRT-TRD-VL:MPRT-PRDCT-SHR:AHS-WGHTD-AVRG:MFN-WGHTD-AVRG:/Sort/MPRT-TRD-VL/Chart/top5](https://wits.worldbank.org/CountryProfile/en/Country/USA/Year/2021/TradeFlow/Import/Partner/all/Product/50-63_TextCloth/Show/Partner%20Name:MPRT-TRD-VL:MPRT-PRDCT-SHR:AHS-WGHTD-AVRG:MFN-WGHTD-AVRG:/Sort/MPRT-TRD-VL/Chart/top5)



**Figure 45:** The workers in a garment factory in Bangladesh

Source: <https://www.nytimes.com/2014/10/14/business/international/two-groups-complete-inspections-of-1700-bangladesh-garment-factories.html>

Nowadays, the laborers who contribute most to the development of fast fashion face poor working conditions, low wages, and health and safety risks. Many workers, especially women and children, are exploited and abused in garment factories, perpetuating the cycle of poverty and inequality.

### 3.2.6 The way to mitigate the problems caused by fast fashion: Sustainable fashion

The apparel industry is also a major contributor to the economy of many countries, and it involves environmental and human aspects. And as the environmental and social

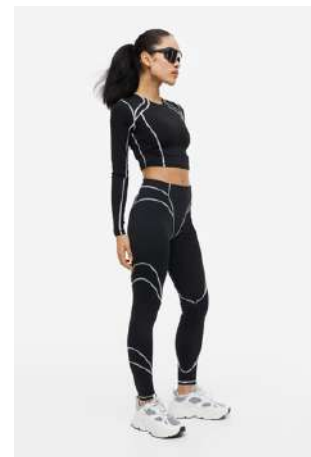
issues brought about by the development of this industry have received more and more attention, more and more people have begun to pay attention to and advocate sustainable fashion. The goal of sustainable fashion is to create flourishing ecosystems and communities through its activity (*Black, 2013*). Reducing carbon dioxide emissions, tackling overproduction, cutting waste and pollution, promoting biodiversity, and guaranteeing fair pay and secure working conditions for garment workers are key components of the sustainable fashion model.



**Figure 46:** Zara & LanzaTech

Source:

<https://www.bioplasticsmagazine.com/en/news/meldun-gen/20220606-Zara.php>



**Figure 47:** H&M & LanzaTech

Source: <https://www.theindustry.fashion/hm-move-created-capsule-collection-from-captured-carbon-emissions/>

The views, attitudes, and extent of engagement of fashion designers with sustainability determine the obstacles associated with incorporating sustainability into their work. Fashion companies play a pivotal role in promoting sustainable design practices. They may effectuate positive changes in design manufacturing methods and the consumption process by selecting sustainable materials for clothing manufacture. Fast fashion retailers, like Zara and H&M, have started putting emphasis on sustainable fashion in recent years. In 2022, Zara introduced party dresses made from polyester fibers made from bioethanol generated from the carbon emissions of a steel mill in a Chinese company called LanzaTech (*Peters, 2021*)(Figure 46). H&M Move also have partnered with the company to launch a women's sports capsule collection in 2023 (*H&M, 2023*)(Figure 47).

For consumers, reselling and donating old clothes and buying second-hand fashion is one way to be sustainable in fashion. The famous Italian vintage store “Humana” sells

predominantly second-hand clothing to extend the life cycle of garments and reduce textile waste and disposal (Figure 48).



Figure 48: Humana vintage store

Source: <https://www.icesp.it/buone-pratiche/humana-vintage-e-second-hand>

### 3.3 Knitting and crochet can be the slow fashion techniques

#### 3.3.1 The Definition of Slow Fashion

The phrase “slow fashion” was invented by Kate Fletcher in a 2007 article, called “Slow Fashion” in *The Ecologist*, which she refers to:

Slow fashion is about designing, producing, consuming and living better. Slow fashion is not time-based but quality-based (which has some time components). Slow is not the opposite of fast – there is no dualism – but a different approach in which designers, buyers, retailers and consumers are more aware of the impacts of products on workers, communities and ecosystems (*Fletcher, 2007*).

Slow fashion is an aspect of sustainable fashion and an alternative of fast fashion, part of the "slow movement", which promotes respect for people, the environment and animals in clothing and garment manufacturing. As such, contrary to the industrialized approach of fast fashion conglomerates, slow fashion involves local artisans and the use of eco-friendly materials, with goal of preserving craftsmanship and the environment, and consequently bringing value to all slow fashion brands, consumers and retailers (*Staniforth, 2010*). Therefore, slow fashion emphasizes on providing high quality products to reduce the frequency of consumers changing clothing lines, paying

attention to the origin of the materials used and also ensuring ethical and non-exploitative production methods.

### 3.3.2 Crochet and knitting techniques promote the use of sustainable materials

According to Kate Fletcher, slow fashion promotes the use of eco-friendly materials to minimize harm to the planet. Yarn is utilized in knitting and crocheting techniques, providing the artist with a tactile link to the materials employed in the production. With the goal of creating sophisticated, long-lasting, high-quality goods, this practical experience enables people to recognize the qualities of various fibers, comprehend the effects that different materials have on the environment, and make knowledgeable decisions regarding sustainable and ethically obtained yarns. More and more yarn brands are also concerned about the environment and advocate for sustainability, focusing on the production of natural fibers such as organic cotton, hemp and wool, as well as recycled yarns to contribute to the slow fashion industry.



Figure 49: Upcycled Alpachino Merino

Source: <https://www.woolandthegang.com/en/products/upcycled-alpachino-merino>

“Wool and the Gang” produce bold, chunky yarns that are designed with the knitting experience in mind. Each yarn type comes in different weights, fluffiness and in a variety of colors. They also make concern for environmental impact part of the brand's DNA. In addition to non-spun wool, their dye yarn suppliers are 100% REACH or OEKOTEX certified, meaning no harmful chemicals are used in the yarn dyeing process. Their take care mohair is now RMS certified, which means that these products meet strict animal and social welfare standards and are traceable throughout the chain. They calculate their carbon footprint as a business, offsetting the brand's carbon

footprint by donating to carbon positive programs. Its yarns are produced in Peru, Turkey or Guatemala. It has responsible sourcing agreements with 91% of its suppliers. (Figure 49).

‘We Are Knitters’ yarns are made from 100% natural fibers and are produced in Peru. These materials, including sheep wool, baby alpaca wool, merino wool and Pima cotton, are locally cleaned, dried and processed locally. It also offers recycled cotton blends, bamboo and recycled t-shirt yarns. All yarns are hand or machine dyed. In addition, their products are certified by organizations such as Recycling Claims Standard RCS, Global Organic Textile Standard GOTS, and others (Figure 50).



**Figure 50:** 100% Baby alpaca cinnamon

Source: <https://www.weareknitters.com/skeins-and-needles/skeins/the-baby-alpaca/baby-alpaca-cinnamon>

An increasing number of individuals are opting to upcycle their old clothes to make baskets, carpets, and other items. Promoting sustainable fashion may be achieved, for example, by repurposing clothing and prolonging its useful life. Traditional crafts like knitting and crocheting will increase the value of the object being altered.



**Figure 51:** HVML crochet bags

Source: <https://settingmind.com/hepzibah-lyon-equally-loves-both-planet-earth-and-crocheted-bags/>

HVML is a crocheted bag brand by Hepzibah Lyon using 100% recycled materials and factory scraps. HVML has been creating globular crocheted bags that break down the boundaries between functional and repurposed items. Each piece is hand crocheted by Lyon herself using fully recycled materials from the UK, sourced from old recycled t-shirts. Motivated by a desire to reuse dormant materials, Lyon combines functionality with quirky forms to create one-of-a-kind accessories (Figure 51).

### 3.3.3 Crochet and knitting techniques can contribute ethical values to local communities

Fair treatment, equitable salary, and secure working conditions for employees across the supply chain are top priorities for Slow Fashion. To guarantee that workers are not mistreated or placed in dangerous situations, this involves maintaining transparency in the sourcing and production processes. Slow Fashion encourages regional manufacture to support the local economy and lower carbon emissions associated with transportation. Producing items closer to their point of consumption increases the emotional connection between producers and consumers, promotes community development, and provides jobs.

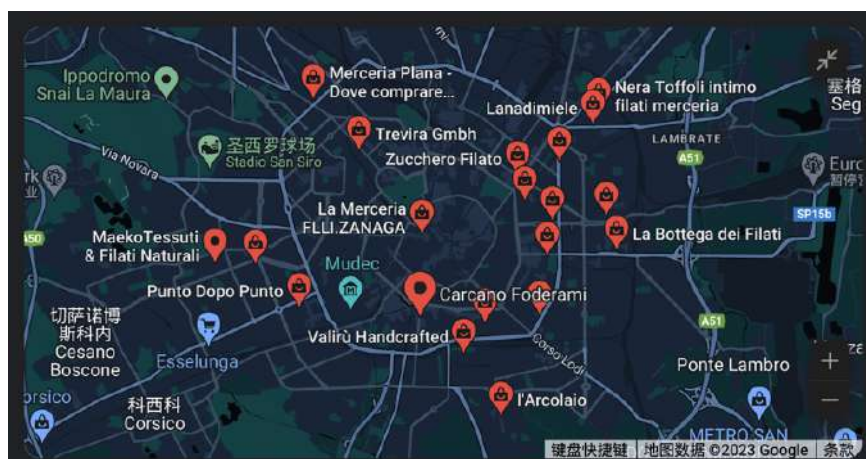


Figure 52: Local yarn shops in Milan

Source: <https://www.google.com/maps/search/filati+milano/@45.51129,9.0452458,12z/data=!3m1!4b1?entry=ttu>

When materials are sourced from various regions for large-scale manufacturing, it can be sometimes necessary to transport them over longer distances and sometimes even over international boundaries, which raises carbon emissions. Conversely, knitters often purchase their supplies locally, which decreases the need for some long-distance shipping. For instance, Google Maps shows that there are 18 yarn stores in the Milan,

but also some establishments are not listed there (Figure 52). There are also grocery stores that sell yarn along with tools such as crochet hooks and knitting needles. Most of the yarn sold in the stores is made from natural fibers, such as wool and cotton. Mornings in Milan are usually filled with markets where vendors from other regions come to sell yarn. By sourcing materials and producing locally, the need to transport raw materials and finished products over long distances is reduced, thus reducing carbon emissions. Buying materials locally can also support the local economy. Knitting and crochet are also portable, simple techniques that can be done locally. These are crafts that are readily learned by anyone who wants to add value to himself and make money.



Figure 53: Heyays knitting sweater

Source: [https://heyays.com.tr/index.php?route=product/product&product\\_id=354](https://heyays.com.tr/index.php?route=product/product&product_id=354)

Heyays is a Turkish handloom brand that offers its customers a more modern and fun style of traditional handmade products (Figure 53). All Heyays products are hand knitted by skilled and professional local Turkish women. These products are completely handmade and designed only by our brand within the framework of ethical rules. As a local Turkish brand, it aims to involve more and more women in the fruitful economic life of this talented field and to gain economic benefits from their efforts.

### **3.3.4 Crochet and knitting techniques can place greater emphasis on product quality**

Slow fashion highlights Slow fashion prioritizes quality and workmanship above disposable items and mass manufacturing. Slow fashion encourages customers to invest in well-crafted clothing that is long-lasting, withstands trends, and is manufactured with

quality above quantity. People may build a durable and adaptable closet that lessens the need for frequent modifications by selecting classic styles and premium materials.

Both crochet and knitting require meticulous attention to detail, as each stitch is individually crafted. This attention to precision ensures that the final product is well-made and free of defects, which contributes to overall quality. Crochet and knitting offer endless customization possibilities, allowing artisans to tailor their work to meet the specific needs and preferences of their customers. Whether it's adjusting sizes, colors or design elements, this flexibility ensures that each piece is crafted with care and attention to detail. Creating hand-knit or crocheted items is a time-consuming process that requires patience and dedication. When artisans invest a great deal of time and effort into each piece, they are motivated to produce quality work that reflects their skill and craftsmanship.

SULK Knitwear is Sarah Beasley's hand-knit project, born during the covid-19 pandemic in 2020. SULK knitwear produces unique, bespoke pieces, each crafted over a 10-40 hour period, improving the quality of the product in order to promote a slower, more sustainable way of shopping (Figure 54).



**Figure 54:** SULK Knitwear vest

Source: <https://www.sulkknitwear.com/products/quick-wit-vest>

### **3.4 Summary of the chapter**

In an era where the fashion industry is still dominated by the fast fashion industry, crochet and knitting as a slow fashion technique where you can make your own garments or accessories is a way of opting out of fast fashion and promoting

sustainability. Making garments through this artisanal technique is much more environmentally and health friendly than the fast fashion industry which makes massive greenhouse gas emissions, industrial wastewater discharges, waste of polymer materials and plastic pollution, and even the exploitation of labor.

Although crocheting and knitting is a slow process and each product takes a lot of time to make, it also means that people who make their own clothes have higher quality, more beautiful, and unique garments, accessories, and will use them instead of the cheap, low-quality, and non-durable fast-fashion products on the market. The promotion of knitting and crocheting as a handmade technique has also led to more and more people buy yarns from the local markets, choosing to use natural fibers such as wool and cotton, promoting the use of organic natural fibers and recycled yarns. This makes them more sustainable compared to the synthetic fibers that are used in large quantities to produce fast fashion pieces. In the process of making a crochet or knitted product, when there is a shortage of yarn, we can buy yarn in a yarn shop and for the yarn that we don't use up we can use them to make a new product. It is worth mentioning that every time a piece of work is completed, it can bring pleasure and pride to the makers.

# Chapter 4

## Cases study of crochet and knitting in today's design world

### **4.1 Crochet and knitting techniques in modern fashion brands**

In recent years, there has been a noticeable resurgence of crochet and knitting in mainstream fashion, with major brands increasingly adopting these traditional crafts to create unique and visually appealing fusions of craftsmanship and contemporary design. Designers have explored the rich textures and intricate patterns that crochet and knitting can offer that are difficult to achieve in other crafts, which gives garments the ability to stand out for their unique and visually appealing details. This uniqueness adds visual interest and sets garments apart. Crochet and knitwear have become a feature on the catwalks of major fashion weeks, and renowned designers have incorporated these techniques into their collections, drawing inspiration from different cultures and traditional crafts to make them more noticeable and acceptable in mainstream fashion.

### **4.2 Crochet and knitting techniques in modern fashion brands**

#### **4.2.1 JW Anderson**

Founded in 2008 by Northern Irish designer Jonathan Anderson, his eponymous label JW Anderson's unique design aesthetic creates thought-provoking silhouettes through the conscious cross-pollination of menswear and womenswear elements to create modern interpretations of masculinity and femininity. Known for his ability to push boundaries and challenge conventional notions of fashion, Anderson often incorporates unconventional materials, bold silhouettes and unexpected details into his designs. His designs often employ a mix of colours, patterns and textures to create visually striking and unconventional pieces.

Often exploring classic jumper aesthetics through knitting techniques, JW Anderson's

designs may feature oversized, chunky knits or intricate twisted patterns, showcasing a modern interpretation of traditional knitwear. JW Anderson often uses knitting and crochet to introduce textural contrasts in his garments, where the combination of different stitches and techniques can create visually interesting and vibrant surfaces. Knitting and crochet allows him to introduce contrasting textures, colours and patterns to help enhance the overall aesthetic of a garment's delicate design, creating visually striking and unexpected combinations.

At 2017 AW menswear, the best thing about this collection is that the lovely knitwear gives the urge to use wool, crochet, and stick needles at home (Figure 55). He uses the element of plain, vintage, traditional seventies crochet granny grids applied to the pockets, sleeves, scarves and skirts of wool jumpers. These crocheted granny grids have bright color combinations in the center and are bordered with black wool, like an abstract interpretation of a church stained glass window. This element is interwoven with other patchwork styles, pagan styles, large silhouettes, colorful prints, children's illustrations and flared cuffs to create a folkloric feel.



Figure 55. JW Anderson 2017 A/W menswear

Source : <https://www.jwanderson.com/cn/collections/mens-aw17>

JW Anderson's Spring/Summer 2020 menswear collection was inspired by deconstructionism, with colour blocking and knitwear remaining key elements of the collection. Pixel-inspired patchwork shorts and grey-toned patchwork cardigans featured a combination of different textures and patterns from knitting and crochet, two-tone knit dresses were embellished with fringes on the front and back, and crochet maxi dresses in swathes of pink and yellow were trimmed with pale blue wool and paired

with sleeveless jackets, the donut-style knit hats was quirky and fun (Figure 56). The knitwear-led design elements bring a cosy and relaxed vibe to the collection, and the softness of the knitwear is also a good illustration of the concept of gender fluidity.



Figure 56. JW Anderson 2020 SS menswear

Source : <https://www.jwanderson.com/us/collections/mens-ss20>

By incorporating knitted or crocheted elements, Jonathan Anderson can add layers and dimension to his work. Blurring the line between art and fashion by using knitting and crochet as artistic mediums. Knitting and crochet offer a degree of customisation, allowing Anderson to experiment with unique combinations of stitches and patterns, and this personalisation gives each piece a unique character and fits in with the brand's avant-garde ethos. Anderson's use of knitting and crochet reflects an appreciation for craftsmanship.

#### 4.2.2 Loewe

Jonathan Anderson is the creative director of LOEWE, he also incorporates crochet and knit elements into LOEWE's designs, with some of the collections showcasing a bohemian and artisanal aesthetic through crochet.

Since 2020, LOEWE has partnered with a bohemian boutique called Paula's from Ibiza, Spain to launch an annual capsule collection named 'Paula's Ibiza'.

Jonathan Anderson holidayed in Ibiza during his childhood, so he was impressed by the island's unique culture, the island was a bohemian magnet in the '60s and '70s (*Jalal, 2017*). Armin Heinemann, who hails from Germany, opened a roadside bar on the island that eventually evolved into Paula's Boutique, which specializes in beautiful floral prints and clothing. He soon earned a reputation as one of Ibiza's cultural superstars,

his newfound calling: fashion designer-slash-retailer, one who's been credited to have created a hedonistic island lifestyle and accompanying fashion movement that was uniquely Ibizan (*Jalal, 2017*).

Jonathan Anderson uses the tropical landscape as the backdrop for his new collection, referencing the natural elements of Ibiza in the brand's characteristically crafted style and summer party elements to celebrate the free spirit and natural elements of Ibiza.

Crochet is a key design element in the collection. Paula's Ibiza 2020 the raffia crochet bag is mixed with bright piqué for a modern twist, while the Loewe logo embellished with a patchwork of seashells adds a summery, nautical feel to the raffia crochet bag (Figure 57).



**Figure 57.** Paula's Ibiza 2020

Source: <https://www.vogue.fr/vogue-hommes-en/article/loewe-x-paulas-ibiza-collab-most-wanted-collection-summer-2020>



**Figure 58.** Paula's Ibiza 2021 crochet hoodie

Source : <https://www.harrods.com/en-us/shopping/loewe-paulas-ibiza-crochet-hoodie-16726213>

Paula's Ibiza 2021 presents a range of casual styles. The crochet hooded top features an

openwork leaf motif on the main body and a green hat section, and the set is made from cotton yarn that echoes the summer vibe. Wear the delicately beaded lizard with the neckline to resemble a lizard perched on a tree (Figure 58).



Figure 59. Paula's Ibiza 2022

Source: <https://hypebeast.com/2022/4/loewe-paulas-ibiza-spring-summer-2022-collection-jonathan-anderson-lookbook-gray-sorrenti>

The Paula's Ibiza 2022 collection shows a party in Ibiza, using a range of sexy elements such as sequins and silks in playful colors. Crocheted fish scale shaped jumper vests and pullovers in beige with a rainbow of shapes and colors in the middle create a bohemian vibe (Figure 59). Also striking are the yellow crochet Paula's Ibiza-embellished jumper and the raffia mini tote bag with striped trim and three-dimensional crochet LOEWE logo (Figure 60).



Figure 60. Paula's Ibiza 2022

Source: <https://www.loewe.com/eur/en/stories-collection/ss22-paulas-ibiza-campaign.html>



Figure 61. Loewe Font Tote

Source: <https://www.loewe.com/eur/en/women/paulas-ibiza/bags>

The 2023 Paula's Ibiza collection features the colorful LOEWE Font Tote raffia crochet tote (Figure 61). The bag comes in a neat square silhouette, with the colorful LOEWE logo at the forefront, and is available in three different sizes and in solid colors, stripes

and leaf embroidery, while the light and breezy woven material injects a summery feel to the bag.



**Figure 62.** Knitting cape from LOEWE 2024 Spring/Summer

Source: <http://www.loewe.com/eur/en/stories-collection/ss24-women-ruway.html>

Jonathan Anderson offers an exciting variation of silhouettes for LOEWE's 2024 Spring/Summer collection, with a striking extra-long knitting cape (Figure 62). Designed with oversized buttons, this chunky line extra-long handmade knitting cape gives a sleek and stylish finish, whilst also adding interest to the outfit. The knitwear comes in a clever selection of colors - bright red, soft grey and black classic apricot - so you can mix and match as you please. The large silhouette men's knitted jumpers with bright clashing colors from the Spring 2024 menswear collection also adds a boyish touch to the collection (Figure 63).



**Figure 63.** Jumpers from LOEWE 2024 Spring/Summer

Source: <http://www.loewe.com/eur/en/stories-collection/ss24-men-ruway.html>

### 4.2.3 Marni

Marni is a renowned Italian fashion brand known for its eclectic minimalism and a

variety of colourful and artistic styles. Marni is not only known for its visually striking and colourful prints, but the brand also regularly incorporates a variety of handmade techniques into its collections, including crochet and knitting. Crochet and knitting techniques add a handmade feel to the brand's clothing and accessories, contributing to the brand's unique and eclectic style, and Marni uses these techniques to add depth and dimension to its pieces, creating striking and visually interesting surfaces.

For Marni Spring/Summer 2020, Creative Director Francesco Risso used botanical motifs in the form of strong Fauvist-inspired painterly brushstrokes and ornate embroidery on dresses and silhouettes that blossomed wildly and exuberantly with vibrant colors. The most striking was the grid crochet dress, an irregular and random grid of crochet with a whimsical botanical pattern crocheted to complement the other botanical prints, like a medieval maiden lounging in a garden (Figure 64).



Figure 64. Marni 2020 Spring/Summer

Source: <https://www.marni.com/it-it/marni-SS20-donna.html>

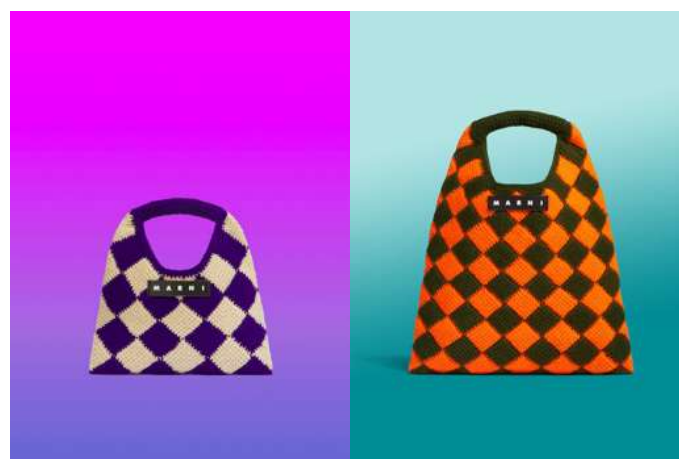


Figure 65. Crochet diamond bag

Source: [https://www.marni.com/it-it/search?q=diamond&lang=it\\_IT](https://www.marni.com/it-it/search?q=diamond&lang=it_IT)

One of Marni's most popular products is their 'Marni Market' collection, which features crocheted bags and techno wool, working with artisans from Colombia to interpret the vintage trend through a combination of different crochet stitches and vibrant colors. The Marni Diamond Crochet Bags use two different colors of contrasting wool yarns to create a Marni-inspired minimalist look (Figure 65). The crochet wave bags are similar in silhouette to the diamond bags, but with pixelated and regular wave shapes, and different color combinations with strong visual effects (Figure 66). The crochet Hedge bags with metal handles features a diamond crochet granny check patchwork in a variety of intricate but contrasting colors that give the bag a colorful vintage vibe (Figure 67).

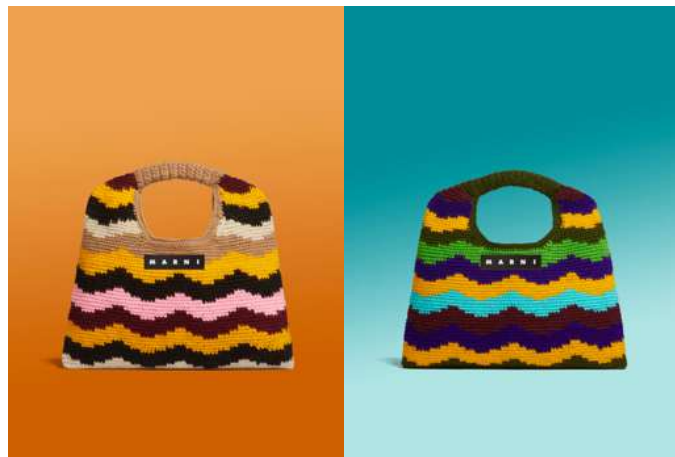


Figure 66. Crochet wave bag

Source: <https://www.marni.com/it-it/marni-market/borse/>

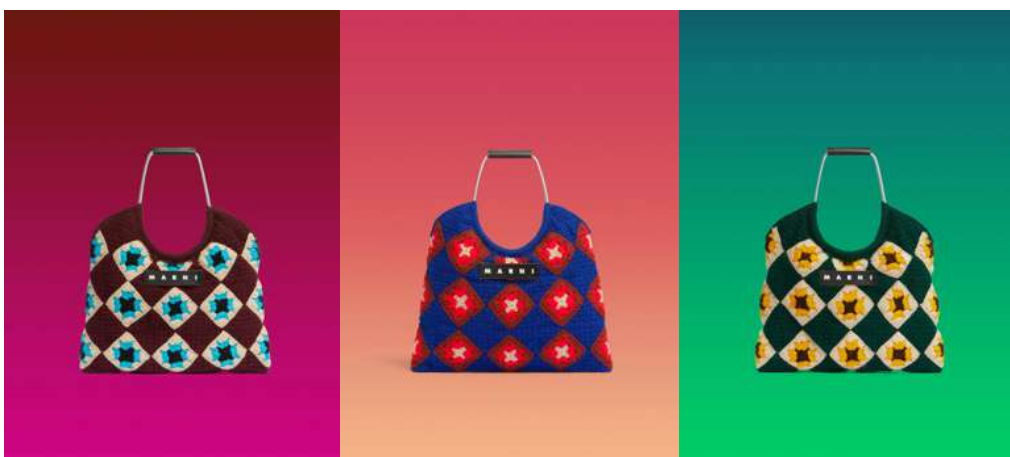


Figure 67. Crochet Hedge bag

Source: <https://www.marni.com/it-it/marni-market/borse/>

Marni is often associated with bold and unexpected color combinations. Crochet and

knitting offer the opportunity to experiment with color in unique and unconventional ways, enabling the brand to create visually striking and memorable designs. Crochet and knitting techniques can be seamlessly integrated with other fabrics, and through clever combinations of different materials and textures, this allows Marni to create visually appealing products that are richly layered. Crochet adds an extra layer of creativity to the brand's overall aesthetic and demonstrates a dedication to craftsmanship and an emphasis on the handmade.

#### 4.2.4 Miu Miu

Founded in 1993, the brand Miu Miu is more about highlighting the youthfulness and playfulness of teenage girls than the sophistication and stability of its parent brand Prada, offering a more rebellious and eclectic approach to design.

The 2015 resort collection is inspired by the 70s, with colorful intricate prints in warm shades of red and orange for a bohemian vibe, with zig-zag crochet motifs and crochet granny plaid patchwork tops for a touch of summer playfulness (Figure 68).



Figure 68. Miu Miu Resort 2015

Source: <https://www.amica.it/gallery/resort-2015-miu-miu/>



Figure 69. Miu Miu Autumn/Winter 2021

Source: <https://www.miumiu.com/us/en/miumiu-club/fashion-shows/fw21-fashion-show.html>

The Autumn/Winter 2021 collection brings a post COVID-19 epidemic yearning for a holiday and the freedom to escape. This fashion show held in the snow showed women's confidence, bravery and endurance. Most notable was the range of knitted and crocheted elements. Crochet bras and satin maxi dresses create a dreamy atmosphere and add depth and visual interest to the garments, making them stand out in terms of craftsmanship (Figure 69). The thick solid crochet jacket, crochet long arm gloves and crochet ski mask are in white echoing the winter snow, the combination of different colors and the vintage granny check crochet style comes with its own motifs to convey Miu Miu's sweetness and playfulness with a hint of vintage modesty (Figure 70). Knitted balaclavas have always been a great representation of elegant winter fashion, and solid colored crochet scarves bring a wave of summer freshness, but blend in just right with the volume of winter (Figure 71).



Figure 70. Miu Miu Autumn/Winter 2021

Source: <https://www.miumiu.com/us/en/miumiu-club/fashion-shows/fw21-fashion-show.html>



Figure 71. Miu Miu Autumn/Winter 2021

Source: <https://www.miumiu.com/us/en/miumiu-club/fashion-shows/fw21-fashion-show.html>



Figure 72. Multi-colored crochet collection

Source: [https://www.miumiu.com/ww/en/p/crochet-tote-bag/5BG228\\_2F46\\_F0055\\_V\\_ORO](https://www.miumiu.com/ww/en/p/crochet-tote-bag/5BG228_2F46_F0055_V_ORO)

Miu Miu is also launching a multi-colored crochet collection. Using a variety of yarns and vibrant colors, the collection combines ethnic and vivacious styles with fine crochet and a black crochet brand icon, Miu Miu uses this long stitch crochet-based style with a rainbow vibe to create a range of products including pouches, tote bags (Figure 72). Crochet and knitting have always been important design elements for the brand, and paired with its delicate and intricate patterns, it enhances the brand's focus on femininity and adds a touch of vintage glamour to its designs, as well as adding handmade and artisanal qualities to its pieces, which helps to enhance the brand's overall aesthetic. Crochet and knitting techniques come together in unexpected ways, earning the brand a reputation for youthful and unconventional fashion.

#### 4.2.5 Prada

Prada is an Italian luxury fashion brand known for its innovative designs, minimalist aesthetic and sensual approach to fashion, as well as being the parent brand of Miu Miu. Prada has always had a constant focus on craftsmanship, and has also stepped up its focus on handmade products in recent years, using crochet techniques to design distinctive pieces.



**Figure 73.** Garden for Prada outdoor

Source: <https://www.prada.com/it/it/pradasphere/special-projects/2021/prada-outdoor.html>



**Figure 74.** Coast for Prada outdoor

Source: <https://www.prada.com/it/it/pradasphere/special-projects/2021/prada-outdoor.html>

Prada's crochet products are well represented in the 'Prada Outdoor' project. The collection encompasses three main themes: garden, coast and mountain to explore different aspects of outdoor living. The garden theme creates the idea of a lush private garden and not only covers outdoor furniture, sports and picnic accessories, hammocks, blankets, etc., but also offers garments made from fluid silk twill and new pattern mixes

and paired with raffia crochet oversized tote bags and crochet fisherman's hats for a casual, relaxed outdoor attitude (Figure 73). A range of yellow cut-out crochet short tops and straight skirts, raffia crochet shopping bags, raffia crochet striped tote bags and much more transports one to a beach amongst the dunes and rocks. A unique summer beach atmosphere is created in an environment surrounded by cabanas, surfboards and watchtowers (Figure 74).

Crochet and knitting techniques add a sense of craftsmanship and artistry in keeping with Prada's commitment to quality and attention to detail. Prada represents bohemian spontaneity for this crochet collection, which also offers a wide selection of bright colors. This seems to infuse Prada's sophistication with a playfulness and liveliness similar to that of Miu Miu. The unlined styles give an innate air of summer casualness, allowing you to grab the essentials, grab the top handles, and head to the beach or the garden to enjoy the vibrancy of nature and easy elegance.

#### **4.2.6 Bottega Veneta**

Bottega Veneta is a luxury Italian fashion brand known for its high-quality craftsmanship and timeless designs, incorporating a variety of artisanal techniques into its collections in a number of ways.

Most famous for its leather line of products, Bottega Veneta has introduced crocheted and knitted bags to its tote collection, offering a unique alternative to the brand's iconic woven Leather designs offer a unique alternative to intricate crochet patterns or knitted textures, adding a tactile element to the accessories.



**Figure 75.** Parakeet

Source: <https://hypebae.com/2021/3/bottega-veneta-salon-01-triangle-handbags-collection-small-point-handle-price-where-to-buy-daniel-lee>

After the launch of the ‘Salon 01’ collection in December 2020, creative director Daniel Lee presents ‘The Point’, a new collection of leather bags in the shape of vintage pouches, in a rich palette of colors and textures resulting from the creative combination of different materials. Crafted from 100% crocheted lambskin, this version of Bottega Veneta's The Point features a magnetic inverted triangle handle in the same color. This exact rendition of The Point is a bright green color, called Parakeet (*Dusil, 2021*) (Figure 75). This bag is also available in a wide range of colors, such as pastel blue, peach, lime green and more, the unique crochet texture of the bag enriches the tactile elements of the collection.

Bottega Veneta and renowned Italian designer, architect and sculptor Gaetano Pesce collaborated to present ‘Vieni a Vedere’, a unique installation at the Bottega Veneta shop in Montenapoleone during Milan Design Week 2023. Inspired by the idyllic landscapes of mountains and meadows, the two bags are named ‘My Dear Mountains’ and ‘My Dear Praries’, which are inspired by the idyllic landscapes of mountain and meadows. My Dear Praries is a crochet tassel bag designed to resemble rolling grass-covered hills (Figure 76). A meticulous crochet technique is utilized for the prairies in seven shades of green calf and lamb leathers, evoking the whirling grasses (*Bottega Veneta, 2023*).



Figure 76. ‘My Dear Praries’

Source: <https://www.bottegaveneta.com/en-ae/vieni-a-vedere---gaetano-pesce/vieni-a-vedere.html>

Collectively, Bottega Veneta sometimes combines crochet or knitting techniques with other materials, such as leather or fabric, to create innovative and luxurious pieces. This mix of materials allows the brand to experiment with textures and create visually

striking designs.

### 4.3 Crochet and knitting techniques in modern niche and independent fashion brands

#### 4.3.1 Memorial Day

Memorial Day is a brand founded by Delsy Gouw on Instagram in 2020, named after Delsy's birthday, which falls on the same day as Memorial Day in the U.S. A. She graduate of the Fashion Institute of Technology in New York City, learnt to crochet from her mother, choosing crochet as a hobby during the covid-19 epidemic, she also offered a customized service of crochet for her friends and shared her works on Instagram.



**Figure 77.** Jo Rosenthal and her 'memorial day' product

Source:

[https://www.instagram.com/p/CMANAcbl3IE/?utm\\_source=ig\\_web\\_copy\\_link](https://www.instagram.com/p/CMANAcbl3IE/?utm_source=ig_web_copy_link)



**Figure 78.** Bella Hadid and her 'its memorial day' hat

Source: [https://www.instagram.com/its\\_memorialday/](https://www.instagram.com/its_memorialday/)

Until her favorite Instagram influencer Jo Rosenthal, who has more than 61,000 followers on Instagram, reached out in September 2021 (Chong, 2021) (Figure 77). Jo Rosenthal posted a picture on her Instagram with a cozy white and red crocheted bag from Delsy Gouw, after that Memorial Day received hundreds of followers on Instagram.

Delsy Gouw's unique, vibrant design style then began to go viral on Instagram. From funky clashing plaid fisherman's hats to pixelated floral fisherman's hats to a range of crocheted bikinis in a variety of styles that embodied playfulness and youthful exuberance, these crocheted creations went viral on social media and gained the favour

of celebrity model Bella Hadid, who is known to have 60.9 million likes on her Instagram feed. Delsy Gouw made red, yellow and black striped crochet hat for Bella Hadid, which was a massive success on social media and in the fashion world (Figure 78). As orders continued to increase, Delsy Gouw then devoted herself to this job. Each Memorial Day piece has crochet at its core, with bright or vibrant colours and regular pattern combinations, and is all handmade, bringing it into the history of handmade textiles with a vintage aesthetic as well as a contemporary feel. Memorial Day creates handmade garments that look just as at home in urban settings as they will on the beach or countryside, and channel contemporary versatility while honoring inter-generational craft traditions (*Memorial Day, 2021*). Delsy collaborates with her mother and other independent female artisans in Indonesia to fulfil a large number of orders, providing opportunities for local women to empower them, as well as empowering the craft heritage. Memorial Day believes that quality craftsmanship can create an alternative to the excesses of fast fashion (*Memorial Day, 2021*).

The brand's products are favored by Rihanna, Kaia Gerber, and Bella Hadid. It's certain to say that Memorial Day has not only dominated summer fashion in 2021, but will continue to be a commendable creative force to be reckoned with.

#### **4.3.2 The Nong Rak**

The Nong Rak is a New York-based brand run by a couple, Home and Cherry, that specializes in hand-knit and crocheted mohair items. They post mesmerizing handmade knitwear on Instagram, attracting the attention of slow fashion enthusiasts and Instagram influencers.

The brand features deconstructivism designs based on materials, colors and tactile experiences. The garments are made on classic domestic knitting machines and crochet techniques, using recycled natural fibers such as wool and mohair, which are carded to blur the texture to create unique and durable garments.

The brand is sustainable with a vision of zero-waste fashion recycling. Their work rarely starts with a sketch, they use the knitting machine or the crochet hook as a paintbrush to conceptualize ideas, these techniques also allow for the freedom of undoing, so there is no fear of making a mistake and the yarn is reused over and over

again. Culted’s interview with them and they mentioned that:

‘While we still spend time sourcing vintage clothing, we now also spend much of the time sourcing vintage, dead stock and second hand natural fiber yarns as well as connecting with small US farms that offer cruelty-free small batch yarn in some of our favorite luxury fibers. These materials take a lot of time to find and most are very singular due to limited quantities, so the things we have been making can’t be mass made in any capacity’ (Hughes, 2021).

These materials take a lot of time to find, and most are very singular due to their limited quantities, making each of their products unique.



**Figure 79.** Pearly Buoy Debris Hoodie

Source: <https://www.instagram.com/thenongrak/>



**Figure 80.** Pearly debris pile stretchy mary janes

Source: <https://www.instagram.com/thenongrak/>

Their first collection called ‘Debris’, which inspired by the decomposition of human discarded wastes. This unique Pearly Buoy Debris Hoodie is made with hand crocheted mulberry silk yarn and a set of 1980s angora wool yarns with wide and narrow colorful stripes as well as baroque pearl embellishments (Figure 79). Some of the curls that come with the needlework make this piece even more playful and cute. The collection also features handmade transformations of discarded footwear, such as the pearly debris pile stretchy mary janes used vintage silver elastic straps from Japan paired with recycled glass beads, baroque pearls, and vintage toy beads (Figure 80).

These mohair knitwear more emphasis on color combinations, brighter colors, and bold use of clashing colors, which makes their work even more vibrant on top of the vintage vibe it already carries. The furry feeling adds to the visual effect and tactile experience of the pieces (Figure 81). This collection makes good use of the characteristics of

mohair, hand-combed and brushed to create a plush texture like watercolor paintings, making each piece look like colorful clouds and colored cotton candy. Nong Rak's range of pieces using this particular texture has been a hit on Instagram and has gained the attention of many knitting and crochet enthusiasts as well as internet celebrities, and



**Figure 81.** Mohair knitwear

Source: <https://www.nongrak.love/>



**Figure 82.** Nong Rak & Heaven

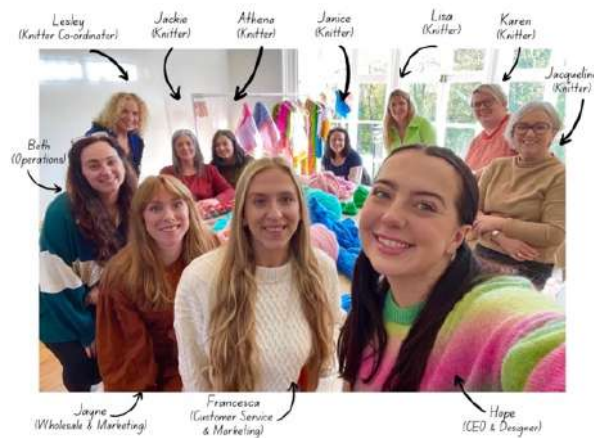
Source: <https://www.nongrak.love/nong-rak-for-heaven-by-marc-jacobs>

they have also been favored by Ava Nirui, which is the creative director of Marco Jacobs' sub-brand 'Heaven', to collaborate with them on a capsule collection for Spring 2022 featuring Balaclava hats, leg warmers, and fisherman's hats (Figure 82).

### 4.3.3 Hope Macaulay

Hope Macaulay is the eponymous label founded by Hope, a young textile designer from the North Coast of Northern Ireland, and an entirely female-run fashion brand focusing on handmade crafts, loved by Gen-z consumers. Hope Macaulay brand website introduces that:

Hope Macaulay garments are created mindfully and hand knit by our talented team of



**Figure 83.** Hope Macaulay and her team

Source: <https://hopemacaulay.com/pages/about>

20 local knitters, who work from home across Northern Ireland - we are so proud of this! We strongly believe in supporting local women in our community and having a close relationship with our supply chain (Hope Macaulay, 2020) (Figure 83).

The brand focuses on bright dopamine hues as well as color blocking, and large silhouettes. Designer Hope doesn't often use knitting tools and has developed and trained her knitters' unique knitting styles using only her hands.

Hope Macaulay has gained attention in the fashion world with its signature brightly hued, big silhouette knitwear in big color blocking. She founded the brand after graduating in 2018 and started a team of knitters after attracting attention through social media. During the covid-19 pandemic in 2020, when many people had to work from home, hope, as well as her team, were able to work from home using hand-knitting techniques and continued to run their own brand through social media, which then took



**Figure 84.** Jennifer Hudson wear Hope Macaulay

Source: <https://www.newsletter.co.uk/news/people/jennifer-hudson-a-fan-of-northern-ireland-fashion-designer-hope-macaulay-3975118>

off in popularity during this time. These cloud-like knitwear are loved by American singer Jennifer Hudson, who showcased pieces from the handmade fashion brand on her talk show (Figure 84).

#### 4.3.4 Cavia

Cavia is an Italian eco-friendly clothing brand with a focus on upcycling created by Martina Boero, designed and manufactured in Italy. Each garment is individually assembled and made from recycled yarns and sustainable fabrics. The brand was born during the big blockade of COVID-19 in 2020 with the idea of designer Martina Boero to create things using knitting and crocheting as well as existing yarns.

The brand is embodied through a kaleidoscope of colors, rich imagery, and a soft mix of vibrant knots and clashing materials, and by a precise focus on the more ecological and supportive aspects of fashion. Martina Boero said in an interview with Marie Claire: “All of the fabrics we use come from stock warehouses of big brands, they are waste materials destined for pulping that we give a second chance to. They are all Italian yarns with different color baths. (Balbino, 2023).”

The brand's creations are a fusion of Italian craftsmanship and sustainability and are experimental, as all the garments are veritable unique experiments, each piece is unique because it is made from discarded materials, but also reflect the brand's respect for differences, openness and tolerance, and each garment is suitable for both men and women.



Figure 85. Hope's wool

Source: <https://www.marieclaire.it/moda/tendenze/a45355453/cavia-intervista-brand-indipendente-moda/>

Knitwear is at the core of Cavia, knitting and crochet are the brand's main techniques.

Each piece is handmade by knitters located throughout Italy and is made from recycled garments and yarns to achieve and support sustainability. Impressive is the openwork floral crochet jacket. The entire garment is made from recycled yarn, with the floral part made from solid colors or a combination of colors, and the collar and cuffs made from black yarn to emphasize the entire body of the crocheted floral body (Figure 85).

Spiber's brewed protein fibers were selected by Kering's Materials Innovation Laboratory (MIL) and Fondazione Pitti Discovery as the featured material for the seventh edition of "S|Style Sustainable Style", which was presented at the 'Sala delle Nazioni in Pitti Immagine Uomo' in June. Cavia joins the movement that aims to transform society and the fashion industry towards a more sustainable future. The brand debuted an exclusive collection of knit tops and pants sets made from brewed protein fibers. The unique knit top and pants set is hand-crocheted from Brewed Protein fibers. Eye-catching crochet floral embroidery made from recycled cashmere adds a bold and sophisticated pop of color to the look (Figure 86).



**Figure 86.** Cavia & Brewed protein

Source: <https://www.fashionado.net/blog/2023/7/20/cavias-sstyle-sustainable-style-exhibition-at-pitti-immagine-uomo>

#### **4.3.5 Rat Hat**

Rat Hat was born during the covid-19 blockade, a colorful crochet project created by Alice Sofia Navarin, and subsequently began posting a series of works on Instagram, which went viral on social media because of the bold use of colors and different materials of yarn. The brand's aim was to present resolutely optimistic and colorful fashion during the recessionary epidemic by perfecting the art of crochet.

The program is operated through a division of labor between Alice's parents and her

sister. With a variety of color combinations, designers revitalize unused yarn or old wool sweaters that would otherwise be thrown away. Each product is unique. The hats are not extravagant, there are no unnecessary decorations, no solid colors, but rather different colored threads interwoven and overlapped through irregular crochet. Now



**Figure 87.** Rat Hat & Woolrich

Source: <https://hypebeast.com/2021/9/serving-the-people-rat-hat-woolrich-collaboration-crochet-hats>



**Figure 88.** Rat hat & Gucci Vault

Source: <https://www.instagram.com/rathatfamily/>

Alice is giving more concrete form to her slow fashion products, based on craftsmanship, spontaneity and the use of non-polluting materials.

In September 2021, ‘Serving the People’ collaborates with Rat Hat and Woolrich on a limited-edition crocheted hat collection (Figure 87). The hats are made from unused yarns from old clothing and other threads of different colors and textures, and her inspiration for colors and materials changes with her mood. For her new collection, Alice has refurbished Woolrich fabrics and introduced neon colored yarns for a refreshed look. In September 2022, rat hat teamed up with other brands to collaborate

with Gucci Vault on a series of multicolored crocheted hats, such as the balaclava hat



Figure 89. Rat hat & Gucci Vault

Source: <https://www.jekoo.com/it/gucci/le-capsule-collection-vault-per-l-autunno-64826>

with star motifs on both sides(Figure 88) and a fisherman's hat inspired by sunshine, blue skies, and green meadows(Figure 89).

Alice specializes in the bold use of vibrant colors in crochet that were inspired by her artist father. These vibrant colors also make for a collection that blurs the boundaries of gender and age, bringing joy to those who are suffering from the epidemic. Alice mentioned in the vogue italia interview that: The most beautiful message a segregated girl wrote to us was that even at home, wearing our hats brought her joy. At the moment in history that we're going through, I think that's a beautiful thing (*Pisanu, 2020*).

#### 4.4 Crochet and knitting techniques in other design areas

Crochet and knitting are often considered a fiber arts craft, but it's not just apparel design that involves the use of fibers; in the realm of home design (rugs, pillows, etc.), and in the realm of toy design (dolls), designers or artisans can utilize these techniques to express themselves artistically and create unique and visually appealing pieces that go beyond the traditional apparel design.

Crochet and knitting are relatively easy to learn and are suitable for all skill levels. This simplicity encourages individuals to explore and apply these techniques in a variety of creative activities. Crochet and knitting projects are often portable, requiring only a crochet hook or two stick needles plus any silk thread, even wire. This makes it easy to work in a variety of environments, such as commuting, traveling, or while waiting for

an airplane.

Both crafts offer a high degree of customization. Artisans can easily adjust patterns, colors, and stitches to create unique pieces based on their preferences or the specific needs of a project. Crocheting and knitting allow for the reuse of yarn and other materials, and even if one is not satisfied with the knitted pieces, they can be removed and re-worked to promote a sense of resourcefulness and sustainability. Artisans can use leftover yarn or recycle old clothes into new pieces. Yarns come in a variety of colors, textures and fibers to provide endless possibilities. Artisans can experiment with different materials to create items ranging from the practical and functional to the decorative and artistic, factors that have contributed to the enduring popularity and widespread use of crochet and knitting techniques in a multitude of creative and practical applications.

In short, the versatility of crochet and knitting stems from its basic simplicity, allowing for adaptation, customization, and combinations with other crafts. Whether for practical purposes, artistic exploration, or community involvement, these techniques offer a wide range of possibilities beyond the scope of traditional fashion.

#### **4.4.1 Carmine Marini**

Carmine is a fibre artist. He saw an open window of opportunity after his first encounter with a tapestry class and has reinterpreted his craft to showcase via Instagram (Figure 90). In his art website of the same name, Carmine describes that:



**Figure 90.** Carmine Marini

Source: <https://ta-daan.com/collections/carmine-marini>

For me, crochet has become an extension of my body, allowing me to meditate and

express my history and personality. Each of my creations is filled with emotions transcribed by the stitch, the line, the thread, and the color. All the recurrences of my daily life (Marini, 2023).

His art is based on crochet, a technique that is repeated and then combined with different materials and media. His aim is to discover the range of functions offered by this technique, to use the tools in a unique way in order to demonstrate the crochet technique, to rediscover, recreate and share it.



Figure 91. Carmine Marini's carpets

Source: [https://www.instagram.com/carmine\\_marini/](https://www.instagram.com/carmine_marini/)

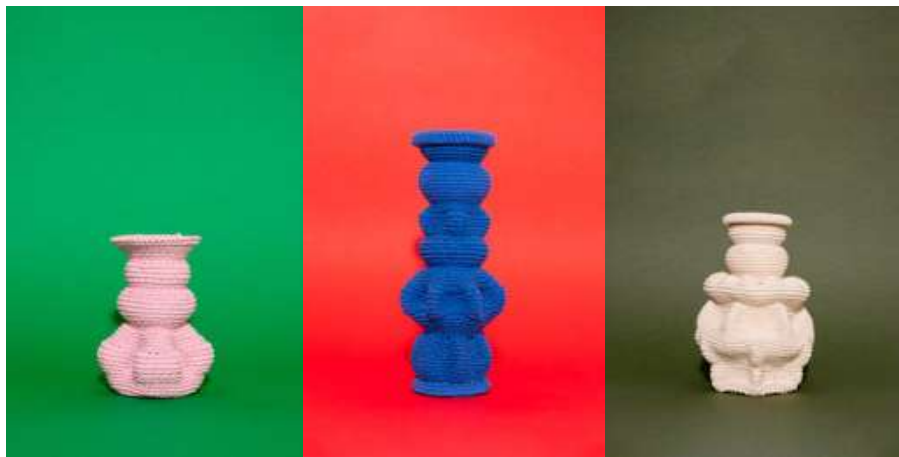


Figure 92. Crochet vases

Source: <https://www.carminemarini.com/shop/p/kon-2-vase>

Initially he designed a series of rugs in a wide range of colours. For the conversion of the different coloured yarns, he did not use the traditional crochet stash method, but directly knotted the threads of the two different colours and created a tufting-like texture (Figure 91). In time he created a series of solid-coloured crochet vases made entirely of

natural cotton, each one unique. Thanks to a special crochet technique based on stitch tension and widening, the vases gradually take on a unique shape consisting of a repeating pattern(Figure 92). The crochet stitches used are also unique and not the usual stitches. The creative process consists only of cotton thread and crochet hooks. Due to the various tension stitches used in the assembly of the vase, the structure takes shape naturally and therefore no structure is used.

#### 4.4.2 Joana Vasconcelos

Joana vasconcelos is a female sculpture artist from Portugal. She frequently uses items associated with domestic work and craft to comment from a feminist perspective on national and collective identity, cultural tradition and women’s roles in society (*Selvedge Magazine, 2020*).



Figure 93. Valkyrie Marina Rinaldi

Source: <https://www.selvedge.org/blogs/selvedge/joana-vasconcelos-beyond>

Created by Joana vasconcelos in 2014, ‘Valkyrie Marina Rinaldi’ is inspired by the Norse goddess Valkyrie (Figure 93). ‘Valkyrie Marina Rinaldi’ is made from coloured wool crochet, fabrics and ornate embellishments. ‘Valkyrie Marina Rinaldi’ is created through dynamic textures and a kaleidoscopic colours embody the power of the figure, which is at once softly beautiful, bewitching and protective.

Joana vasconcelos is collaborating with Dior in 2023 to create the Autumn/Winter 2024 runway show for the couture house. This large-scale kaleidoscope installation is still inspired by the Valkyrie. The installation, entitled “Valkyrie Miss Dior”, was entirely handmade (Figure 94). The installation spreads throughout the interior of the show, forming a series of undulating volumes that extend above the runway and teardrop onto

the floor at various points throughout the show, the suspended amorphous structure and its frozen droplets are made entirely of textiles and colored in blue, and incorporate 20 fabrics from Dior, wrapped in knitted, sewn and crocheted fabrics and objects, wrapped and decorated, but also in keeping with the theme of the Dior Autumn/Winter 2024 collection's tribute to Christian Dior's sister, Catherine Dior.



**Figure 94.** Valkyrie Miss Dior

Source: <https://www.dezeen.com/2023/03/02/dior-joana-vasconcelos-paris-fashion-week-catwalk/>

#### **4.4.3 Bastian Beyer**

Bastian Beyer is a London-based architectural designer. In collaboration with fellow designer Daniel Suarez, Beyer developed the Column Project, inspired by the process of bacterial excretion. The aim is to apply traditional knitting techniques to microorganisms, which are then cured using a biological process that has identified the structural potential of composite materials.



**Figure 95.** Textile Column

Source: <https://www.dezeen.com/2019/01/16/bastian-beyer-knitted-design-material/>

Using a custom-made circular handloom, Beyer created a 160 cm high textile column

from two environmentally friendly, sustainable jute fibers and permeable polyester (Figure 95). The column consisted of four different woven patterns to test how the different structural qualities of the individual patterns combined with the biocalcification process, and how these patterns in turn defined the properties of the final structure. The textile columns were then installed in a rotating bioreactor to provide a controlled environment and then sprayed with a microbially active solution



**Figure 96.** Textile Column

Source: <https://www.dezeen.com/2019/01/16/bastian-beyer-knitted-design-material/>

and a solution of calcium chloride and urea to initiate a range of bacterial reactions (Figure 96). The microorganisms sprayed onto the knitted structures responded to specific external stimuli, which triggered a transformation, meaning that the material reacted biologically to its environment.

#### **4.4.4 Yarn Bombing**

Yarn bombing is a special type of graffiti or street art that uses colored knitted or crocheted yarns or fibers instead of paint or chalk to cover trees, park benches, fire hydrants and other urban furnishings. The practice is believed to have originated in the U.S. with Texas knitters trying to find a creative way to use their leftover and unfinished knitting projects, but it has since spread worldwide (*The Telegraph*, 2009).

In 2012, a group of knitters from Pistoia in the Tuscany region of Italy demonstrated this art with a large tree in a piazza (Figure 97). The handmade fabric wrapped around the tree is knitted with different coloured yarns to create striped fabrics of varying widths and combined with crocheted granny squares. The University of Ferrara, Italy, organized yarn bombing for the first time in 2022 and invited everyone to decorate the

University of Ferrara Botanical Garden with the aim of paying more attention to environmental and social issues while promoting participation and inclusion (Figure 98).



**Figure 97.** Yarn bombing in Pistoia, Tuscany, Italy

Source: [https://firenze.repubblica.it/cronaca/2012/11/25/foto/lo\\_yarn\\_bombing\\_a\\_pistoia-47421646/1/](https://firenze.repubblica.it/cronaca/2012/11/25/foto/lo_yarn_bombing_a_pistoia-47421646/1/)



**Figure 98.** Yarn bombing in Ferrara Botanical Garden

Source: <https://www.unife.it/it/notizie/2022/vita-universitaria/yarn-bombing>

Yarn bombing is an inclusive art event that breaks away from traditional male-dominated graffiti art. The people who participate in this street art vary in race, class, age, gender, and even different styles of knitting and crocheting as well. This art movement promotes cultural exchange between human beings in the form of hand knitting and crocheting, breaking down the boundaries between people, and is also a good way to publicize these two ancient craft techniques.

#### **4.5 The Impact of Social Media on Hand Knitting and Crochet**

With the emergence and development of the Internet, human beings have entered the digital media era, and various social media, such as Instagram, TikTok, Weibo, etc., provide a communication platform for people from all over the world and different cultures, and are an important tool to promote information dissemination, marketing promotion and social interaction.

This global reach facilitates the exchange of different techniques, cultural influences and unique yarn choices, and platforms such as Instagram, Facebook and Pinterest have a large number of communities and groups dedicated to crochet and knitting, which crafters can join to share their creations, seek advice and connect with like-minded people. Crafters can often also showcase their completed projects, works-in-progress and ideas through photos and videos, and this visual inspiration can be a catalyst for others to try new patterns and techniques. Helps make it easy to share crochet and knitting patterns. Designers can show off their patterns, and artisans can share their interpretations, modifications, and adaptations of those patterns, thus fostering collaboration and creativity.

Sustainable ideas like DIY and upcycling can also be spread across social media platforms, while knitting and crocheting offer a more varied approach to these projects, encouraging artisans to think outside the box and reduce waste. Social media also provides a platform for local yarn shops to reach a wider audience, thereby increasing choice and change in the way yarn is purchased, making knitting and crochet techniques more environmentally friendly. Craftspeople can discover and support these shops from social media platforms, whether they are looking for a specific yarn, pattern or attending a local event.

It is worth noting that the COVID-19 pandemic facilitated the spread of hand knitting and crochet techniques. At the height of the pandemic, people found themselves spending more time at home due to lockdowns and social distancing measures, and social media platforms provided a way to communicate without geographic constraints. Meanwhile crochet and knitting offered a productive and fun way to pass the time staying indoors. Hand knitting and crocheting also provides a calming activity to

alleviate anxiety and a range of mental health issues brought on by the uncertainty and stress of the pandemic period, crocheting and knitting provides a creative outlet where individuals can set goals, work on projects and experience a sense of fulfilment by completing handmade items and sharing this joy through social media platforms. The pandemic has sparked a renewed interest in self-sufficiency and DIY projects, and crochet and knitting has responded to this trend as an easy-to-master skill that enables people to create functional and decorative items for themselves and their homes, with detailed tutorials available on YouTube for people to learn to make crocheted and knitted blankets, scarves, etc., to provide physical and emotional warmth and comfort. The economic impact of the pandemic has led many people to seek out budget-friendly hobbies and activities. Crochet and knitting are relatively inexpensive crafts that require minimal investment in materials and tools, making them suitable for a wide range of people.

#### 4.5.1 Alexandria Masse

Alexandra Masse is a crochet artist from Canada who focuses on building wearable art with hand knitting and crochet, this artist specializes in funky crochet headwear.

Because of the great covid-19 pandemic, many people actually started spending time at home looking for hobbies, knitting and crochet gained momentum on social media, Alexandria learnt to knitting and crochet skills from her mother at a very early age and posted some of her own crocheted and knitted creations such as crocheted dresses, balaclava hats etc. on Instagram.

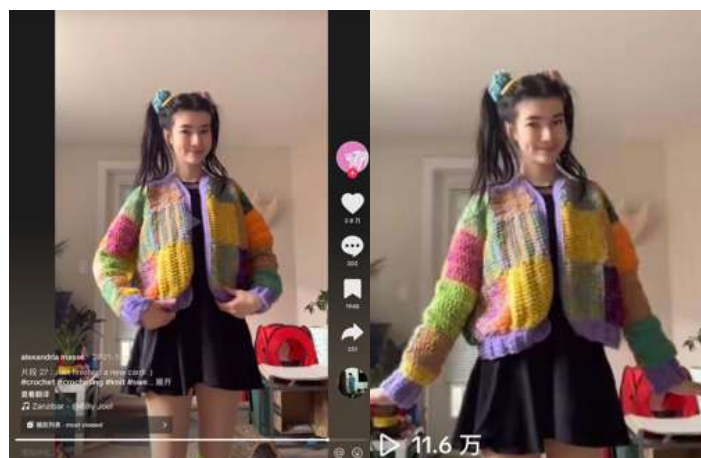


Figure 99. Alexandria and her cardigan

Source: <https://tiktok.com/@alexandriamasse>

Alexandria first posted a video of her making a cardigan on her TikTok account in January 2021, which now has nearly 116,000 views (Figure 99). She later posted a video on the TikTok platform to showcase a crocheted balaclava made from yarn scraps,



Figure 100. Alexandria and her yarn scrap balaclava

Source: <https://tiktok.com/@alexandriamasse>

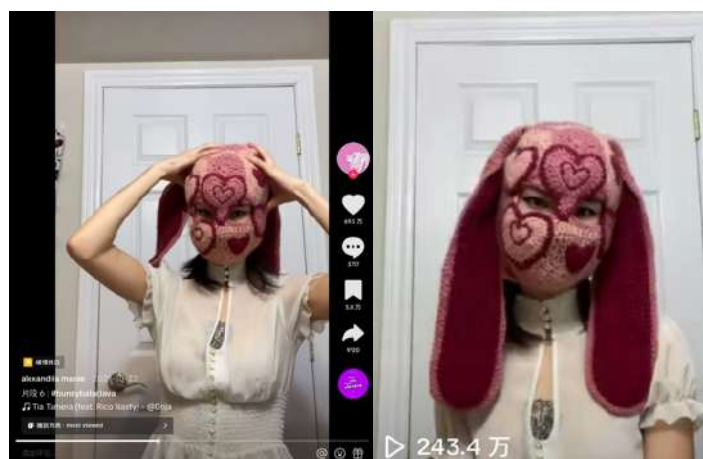


Figure 101. Alexandria and her yarn scrap balaclava

Source: <https://tiktok.com/@alexandriamasse>

which consisted of different colored and twisted circular shapes, and has so far garnered 1.28 million views (Figure 100). Alexandria then showed a pure wool pink rabbit balaclava hat that has received 2.4 million plays on TikTok so far (Figure 101). The rabbit balaclava is made of different pink pieces of knitted fabric, decorated with a heart-shaped crochet piece and a pair of long pink rabbit ears to give the already lively hat a more stylized and dynamic. As this highly creative balaclava became popular, she started crocheting different styles of bunny balaclavas.

In 2022, Alexandria made a crocheted spider called ‘Abigail’, a project funded by and exhibited at the John Fluevog shoe shop in Toronto (Figure 102). The spider consists of

approximately 190 concentric pieces crocheted with pure wool yarn from Canada in varying shades of pink, with each circular piece carrying a different color. The gradual progression of the concentric circle pattern also gives the piece a visual effect of flow and continuity. In April 2023, Alexandria and March 21 Café collaborated on the lace yarn bombing project, decorating the square column in the café (Figure 103). The main part of the decoration, which wraps around the entire column, consists of lilac, pink, white, light blue and yellowish yarns woven on a domestic knitting machine, decorated on the inside by crocheted granny square pieces, and on the outside by crocheted circular pieces, as well as by serpentine crocheted lines.



**Figure 102.** Abigail

Source: <https://www.alexandriamasse.com/portfolio/spider>



**Figure 103.** Alexandria and her yarn scrap balaclava

Source: <https://www.instagram.com/alexandria.masse/>

Alexandria has attracted a lot of attention by showcasing her knitting work on social media platforms, her crochet work, especially the balaclava hat has attracted a lot of imitations from crochet enthusiasts. To date she has attracted 242,000 and 208,000

followers on TikTok and Instagram respectively, and has also been voted the most followed Instagram account of 2022 by High Nobility.

#### 4.5.2 Harry Styles cardigan

In February 2020, The Today Show invited renowned singer Harry Styles as a guest performer. During rehearsals, it wasn't his music that stood out, but the uniquely patchwork knitted cardigan he wore from JW Anderson's Spring/Summer 2020 collection. The cardigan is mainly red with yellow, green, orange and black squares, with red yarn on the collar and hem and blue yarn on the placket (Figure 104).



**Figure 104.** Harry Styles and the patchwork cardigan

Source: <https://www.dazeddigital.com/fashion/article/49694/1/harry-styles-crochet-patchwork-cardigan-tiktok-trend-jw-anderson-diy-fashion>

By June 2020, a girl from Los Angeles, called Liv Huffman, posted a video on the 15th about making this cardigan using crochet. The blogger mentioned in the video that the cardigan was priced at €1,535, so she decided to reproduce it herself after mastering the crochet technique (Figure 105).



**Figure 105.** Harry Styles and the patchwork cardigan

Source: <https://www.voguebusiness.com/companies/how-jw-anderson-harry-styles-cardigan-went-viral-on-tiktok>

The video has so far garnered 4,096,000 views and 1,111,000 likes on TikTok. As the video grew in popularity, many people started replicating the cardigan and sharing it on social media platforms to the point where it became a trend known as the ‘#harrystylescardigan’ challenge.

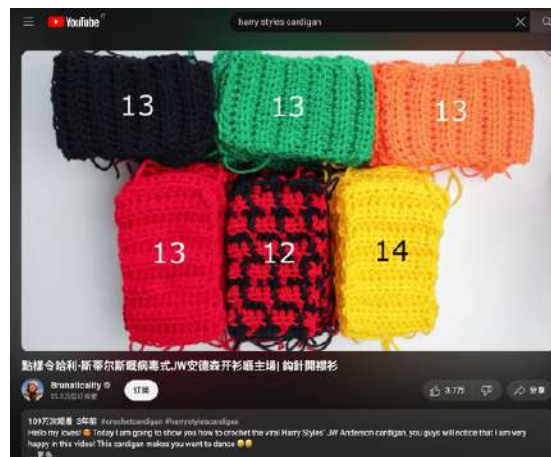


Figure 106. Harry Styles and the patchwork cardigan

Source: <https://www.voguebusiness.com/companies/how-jw-anderson-harry-styles-cardigan-went-viral-on-tiktok>

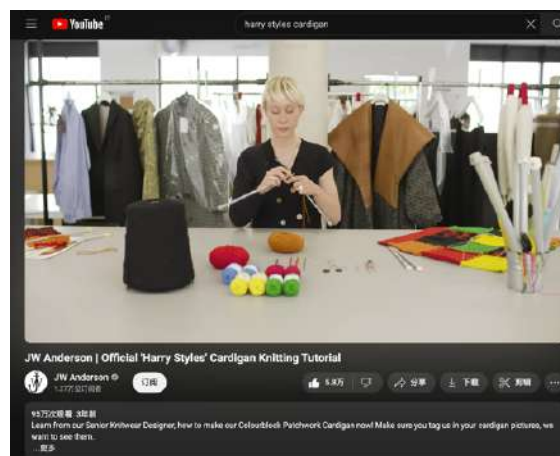


Figure 107. Harry Styles patchwork cardigan official tutorial

Source: <https://www.voguebusiness.com/companies/how-jw-anderson-harry-styles-cardigan-went-viral-on-tiktok>

The youtuber named Bruna shared her tutorial for making a Harry Styles cardigan on her channel on 26 July 2020 and it received 1.09 million views (Figure 106). This tutorial replicates the pattern on the original cardigan in more detail by crocheting it, and this blogger was kind enough to include a link to purchase the tool. In response to the popularity of social media platforms such as TikTok about this wool sweater knock-off, JW Anderson shared the official knitting tutorial for the Harry Styles cardigan on YouTube on the 12th of August 2020 with a free drawing to a large number of knitters (Figure 107). The tutorial video is shown by the brand's senior knitting designer, who

describes how the cardigan is finished with a combination of hand knitting and crochet, and suggests that it is made from pure wool. The tutorial for this striking patchwork cardigan for beginners and intermediate levels of expert knitting knowledge introduces a variety of stitches, from moss and double moss stitches, to garter stitch and reverse bee stitch, to slip stitch and jacquard stitch. The detailed tutorials also allow more and more creators to get creative, using different coloured yarns as well as patterns to make different styles of cardigans.

In the first half of 2020, the COVID-19 blockade has just begun and people are facing the insecurity and uncertainty it brings. And the creative challenge brought about by this cardigan was warmly received on social media platforms, giving people the power of optimism to face life's challenges and enhancing social cohesion. "Fashion content plays into the larger themes we see resonating well with the TikTok community, and we continue to see fashion grow in popularity across the platform with creators and brands," says Cece Vu, fashion content partnerships lead at TikTok (*Chittrakorn, 2020*).

This challenge is getting more and more people to try hand knitting and crochet, which not only fits perfectly with JW Anderson's philosophy and ethos of craftsmanship, but also reflects the potential of social media platforms such as TikTok for fashion promotion, marketing and spreading the word about hand knitting and crochet.

#### **4.5.3 Social media can be good for promoting hand knitting and crochet business.**

Instagram and TikTok are both powerful platforms for promoting the crochet and knitting business due to their visual nature and broad user base. Crochet and knitting are highly visual crafts and platforms such as Instagram and TikTok are essentially visual mediums. Users can easily showcase their intricate designs, vibrant colours and unique patterns through photos and videos, catching the attention of potential customers scrolling through their feeds. These social media platforms will use big data to analyze each user's hobbies, and if you regularly browse posts related to hand knitting and crochet, Instagram will suggest more displays from different craft enthusiasts (Figure 108).

On social media, each hashtag represents a themed community, and users often use a variety of hashtags to promote their posts for more people to notice and like. Using

relevant hashtags and hashtags on topics allows users interested in crochet and knitting to discover more content. This can help increase your visibility on both platforms and attract followers who are passionate about these crafts. TikTok is able to summarise what's hot at the moment and engage more and more users interested in this hot topic, especially by collaborating with other creators or participating in crochet and knitting related challenges. For example, in the aforementioned #harrystylescardigan challenge, participants shared posts with the hashtag to showcase their work, attracting more followers while giving craft enthusiasts an opportunity to create their own handmade brands, and helping those who are growing their crochet or knitting businesses to expand their reach to new audiences and attract more followers with similar interests. and attract more followers with similar interests.

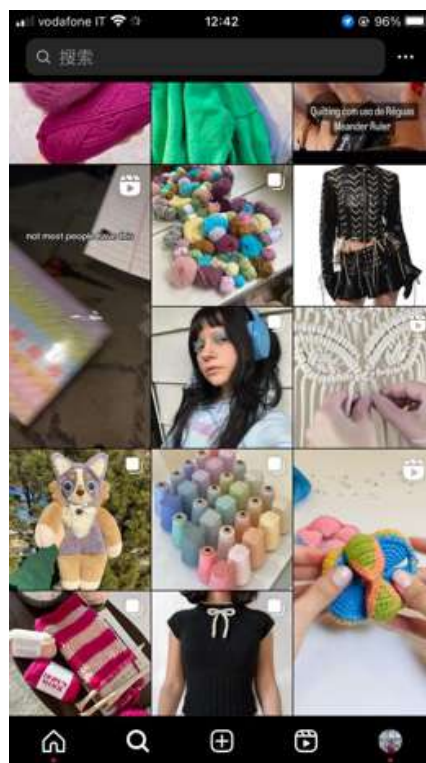


Figure 108. Crocheter's Instagram search interface

Source: The thesis author

Instagram and TikTok have a large global user base, allowing crochet and knitting businesses to reach a diverse audience of potential customers from all over the world. This global reach allows businesses to expand their customer base beyond their local area and connect with enthusiasts from different cultures and backgrounds. Collaborating with influencers on social media platforms can help in the promotion of

the crochet and knitting business. The influencers have their own fan base and a wider audience to show, which is the fastest and most effective way to gain more attention and exposure. As mentioned earlier about the slow fashion brand Memorial Day, designer Delsey's work is noticed by many celebrities with huge fan base such as Bella Hadid, Billie Elish, Dua Lipa etc. Kylie Jenner showed the checkered bikini from memorial day on her Instagram (Figure 109). These internet celebrities share Delsey's work on social media platforms, attracting more customers to Memorial Day and increasing more orders.



**Figure 109.** Kylie Jenner wear the Memorial Day bikini

Source: [https://www.instagram.com/its\\_memorialday/](https://www.instagram.com/its_memorialday/)

Instagram and TikTok offer e-commerce features for a wide variety of online small businesses that rely on social media, allowing users to shop directly from posts. Take advantage of these features by tagging your products in posts and stories, making it easy for followers to purchase items that interest them. Both platforms offer sophisticated ad targeting options that allow businesses to reach specific demographics. Handmade crochet and knitting businesses can maximize the effectiveness of their marketing efforts by using targeted ads to market their products to users interested in crafts or handmade, DIY products. Instagram and TikTok offer powerful advertising platforms as well as analytics tools that enable businesses to promote their posts to specific groups of people, track the performance of their posts, understand their audience demographics and measure the effectiveness of their marketing strategies. Instagram and TikTok provide a dynamic and visually driven environment for crochet and knitting businesses to showcase their products, engage with their audience and

foster a thriving online community of enthusiasts. By utilizing the unique features and functionality of these platforms, craft enthusiasts can build and promote their brands. By having more and more knitting and crochet enthusiasts sharing their work or building their slow fashion brands on social media platforms, it also promotes hand knitting and crochet skills to a growing number of people who are aware of and willing to master these skills.

#### **4.6 Summary of the chapter**

Hand knitting and crochet are crafts that can be used in any field other than apparel design, and their historical significance and value as a cultural heritage allows design brands that focus on these crafts to celebrate cultural heritage and traditions and give them a deeper brand value. Crochet and knitting are traditional crafts that require skill and precision. By incorporating these techniques, fashion brands can demonstrate a high level of craftsmanship and add a handmade touch to their designs. The handmade and crafted qualities of crochet and knitting add a level of craftsmanship and uniqueness to garments.

The demand for sustainable and eco-friendly fashion has led brands to explore traditional crafts. Crochet and knitting allow for sustainability when using natural fibres, and the handmade nature of the items is in line with the principles of slow fashion, promoting longevity and mindful consumption.

Social media platforms have become a powerful influence in the fashion world. Sharing crochet and knitting projects, tutorials and finished garments on platforms such as Instagram and Pinterest has increased the visibility and popularity of these crafts. Celebrities and influencers have fuelled the popularity of this trend by wearing crochet and knitwear in public or on social media platforms. Their fashion choices often influence mainstream consumers and encourage adoption of these crafts.

Overall, mainstream fashion brands are using crochet and knitting in their design work to capitalise on the craftsmanship, versatility, sustainability and visual appeal that these traditional techniques offer. Craft enthusiasts with predominantly hand knitting and crochet skills can also use these techniques to create unique pieces, not just for clothing

accessories, but also for furniture, toys and more. And by displaying them on social media platforms has gained followers, in this condition niche and unique slow fashion brands can be established to promote the development and attention of slow fashion in the era of fast fashion. The combination of tradition and innovation allows brands to create unique, marketable designs that resonate with a diverse consumer base. Designers are constantly experimenting with new techniques and materials in crochet and knitting, pushing the boundaries of traditional craftsmanship. This innovation attracts attention and keeps these crafts important in the evolving fashion industry.

# Chapter 5

## Crochet, Knitting and Well-being

### 5.1 Background of the study

Well-being is defined as “a combination of feeling good and functioning effectively” (Huppert, 2009). It arises from an ability to realize personal potential, cope with daily stresses and contribute productively to society. The relationship between engaging in creative activities and well-being has been explored in general terms and there is a growing body of evidence to suggest that such engagement or participation can positively impact on both health and well-being (Staricoff, 2004).

Wellness isn't about positive thinking or being positive all the time (Betsan Corkhill, 2014, p.33). Optimism and optimistic thinking are not the keys to good health. It all comes down to adopting an adaptable mindset to handle the ups and downs life hands you: actively seeking out novel experiences, remaining receptive to new possibilities, and holding the belief that any disappointments will serve as priceless “learning experiences”. It's about developing a central core of ‘feeling good’ despite external influences – where you don't need to depend on good fortune happening to you to feel happy or good about yourself (Betsan Corkhill, 2014, p.29).

The world and people from all areas of life were suddenly struck by the COVID-19 Epidemic at the start of 2020; in order to protect themselves from the virus and to preserve their physical health, people were forced to quit their employment and stay at home in quarantine. Long stretches of time spent in a tiny, contained area like a home can be unpleasant, and home quarantine is strict and time-consuming.

In order to stay healthy at this time, we need to develop different ways to divert our attention and alter our perspective in order to preserve mental wellness. Knitting and crochet are employed in the textile arts not just for design purposes but also for occupational therapy in the medical field. It can help keep the brain active and prevent

Alzheimer’s disease in addition to making people feel less stressed, anxious, and depressed.

## 5.2 Specificities of knitting and crochet

Any activity you enjoy that is not harmful to others will benefit your well-being. However knitting and crocheting has some special qualities that make them stand out from the crowd, because when we are knitting or crocheting, we should focus on hand movement and hand placement, and it achieves eye contact with or without a pattern. It also has good portability, requiring only one or more balls of wool, a crochet hook or two knitting needles to be ready to go. Therefore, during the COVID-19 pandemic, knitting and crochet gained popularity as a pastime (Figure 110).

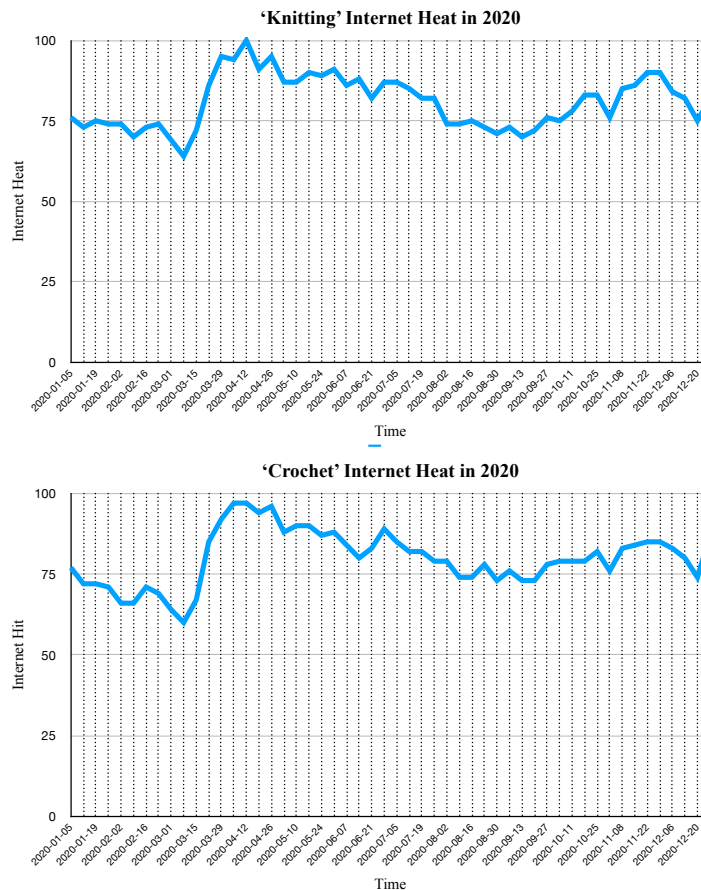


Figure 210. Internet heat of 'Knitting' and 'Crochet'. Made by author

Data Sources: <https://trends.google.com/trends/explore?date=today%205-y&q=knitting&hl=zh-CN>  
<https://trends.google.com/trends/explore?date=today%205-y&q=crochet&hl=zh-CN>

In addition to stimulating the brain, hand knitting and crochet fosters creativity. With their creative minds and the ability to combine various wool colors and stitches, people

can use their imagination to produce one unique piece of art after another. These are relatively simple skills to pick up at first, but they can be developed gradually, in a safe structure at first, then with more creative experimenting as confidence and skills grow. In terms of skills, knitting can be fairly simple, the continuous looping of yarn over a needle to make a stitch, or incredibly complex, through the use of multiple needles, stitch combinations, and different yarns to create intricate patterns (Turney, 2009) (Gillow & Sentance, 2009).

### 5.3 Occupational therapy

Occupational therapy (OT) is a medical specialty that uses evaluation and intervention to help people in groups, communities, or individuals develop, regain, or continue engaging in meaningful activities. The American Occupational Therapy Association defines an occupational therapist as someone who “helps people across their lifespan participate in the things they want and/or need to do through the therapeutic use of everyday activities (occupations)” (American Occupational Therapy Association, 2023). Crochet is a craft that is great for use in occupational therapy settings (Kathryn, 2012).



Figure 111. Patient in knitting

Photo source: <https://textileartcenter.com/feature/knitting-as-therapy/>

Needless to say, needle and thread activities, such as knitting and crochet, can be used at almost any age to help develop neuromuscular, fine motor, and cognitive skills. This makes it a fantastic option for occupational therapists to think about, especially when combined with its affordability. They are a type of hand-eye exercise that can enhance

cognitive function, help with fine motor skills, and promote various forms of physical healing. When combined with its portability, all it takes to learn is a basic introductory technique that almost anyone can do (Figure 111).

In fact, in the 1970s alternative therapies and crafting was popular. Therefore, some instructors at Occupational Therapy schools required their students to create files of instructions for crafts including crochet and macramé to use as a resource for their future patients (*Kathryn, 2012*).

According to a research by Bissell and Mailloux, occupational therapy treated mental illness with crafts up until World War I, when they started treating veterans. Knitting, crochet and other crafts were very popular among occupational therapy after the war. Only 20% of occupational therapists employ crafts as a method of therapy, according to the survey, despite the fact that 75% of them do so. The primary cause of the extremely flat data is the non-measurable nature of crafts as a therapeutic approach. While a patient's physical strength may be tracked, measuring psychosocial factors digitally is nearly impossible. They say, "Occupational therapy may be very beneficial to occupational therapists, but if they cannot demonstrate with quantifiable results that their techniques work, they may not be able to secure the money necessary to keep up their good works (Bissell & Mailloux, 1981).

## **5.4 Knitting and crochet help keep the brain**

### **5.4.1 The repetitive, rhythmic hand movements**

The hand has played a key role in human evolutionary history. Anthropological evidence suggests that hand movements and functions cause the brain to develop in certain ways, especially fine motor movements, which require the involvement of multiple senses such as vision and touch, while also exercising more areas of the brain. As a process, knitting encompasses repetitive tasks that require physical and cognitive skills (*Myzelev, 2009*).

As a knitter, I must stress that knitting and crocheting involve repetitive, rhythmic hand movements as a fan of these crafts. Each hand knit stitch is a repetition of the previous stitch, worked with the same hand movements. Bilateral, synchronized, patterned

motions are used in hand knitting and crochet. Your brain must integrate these extensively in order to perfect them. Your brain will be working extremely hard as a result of these motions, which enable your hands to operate together precisely. Performing a bilateral, coordinated pattern of movement across the midline of the body that you're also looking at is a complicated process – it uses up a lot of brain capacity leaving it with less capacity to pay attention to other issues (Betsan Corkhill, 2014). Therefore, if you add counting and complex patterns to the mix, it takes even more brain power. The numerous narratives collected from knitters suggest that knitting and crochet is very effective in distracting the brain, even as they suggest that we can use this to take control of our lives when we are faced with sudden changes in our lives.

Betsan Corkhill also mentioned the benefit that:

Performing a bilateral, coordinated pattern of movement across the midline of the body that you're also looking at is a complicated process – it uses up a lot of brain capacity leaving it with less capacity to pay attention to other issues. Add in some counting and an intricate knitting pattern and you use even more. A large number of narratives collected from knitters describe knitting as highly effective for distracting the brain's attention, and you can take advantage of this to take control of your life (*Betsan Corkhill, 2014, p.46*).

Therefore, if you add counting and complex patterns to the mix, it takes even more brain power. The numerous narratives collected from knitters suggest that knitting and crochet is very effective in distracting the brain, even as they suggest that we can use this to take control of our lives when we are faced with sudden changes in our lives.

#### **5.4.2 Scientific research**

In order to find out more about the cognitive activities people engaged in later in life, researchers under the direction of Dr. Yonas E. Geda, a psychiatrist at the Mayo Clinic in Rochester, Minnesota, conducted a 2011 study in which they randomly interviewed 1,321 people between the ages of 70 and 89, the majority of whom had normal cognitive abilities. According to a research that was published in the *Journal of "Neuropsychiatry and Clinical Neuroscience"*, those who crafted, such knitted or crocheted, were less likely to experience memory loss and moderate cognitive impairment. While it's

conceivable that only cognitively sound individuals partake in these kinds of activities, reading newspapers and magazines and listening to music did not appear to have the same advantages. Craft activities, according to the researchers' hypothesis, encourage the growth of neural networks in the brain that support the maintenance of cognitive health (Geda et al., 2011).

### 5.4.3 Alzheimer's disease and dementia

Regular knitting or crocheting can lessen cognitive impairment caused by Alzheimer's disease by 30-50%, according to a research by Dr. Yonas E. Geda, which was previously noted. This lower risk can be attributed to a variety of factors, including the possibility that picking up new skills fosters neural connections that increase cognitive function. Practicing knitting and crocheting or learning new stitches provides ample opportunity to make new connections at any skill level. The survey also revealed that 92% of those in really bad health said that knitting and crochet had improved their general health. In particular, 21% reported that knitting and crochet reduced blood pressure and 26% stated it relieved arthritic symptoms (Figure 112). Knitting and crochet appeared to benefit both groups in the study, which compared a group of regular exercisers to a group of non-exercisers; this suggests that knitting and crochet are great pastime for those with mobility concerns (Geda et al., 2011).

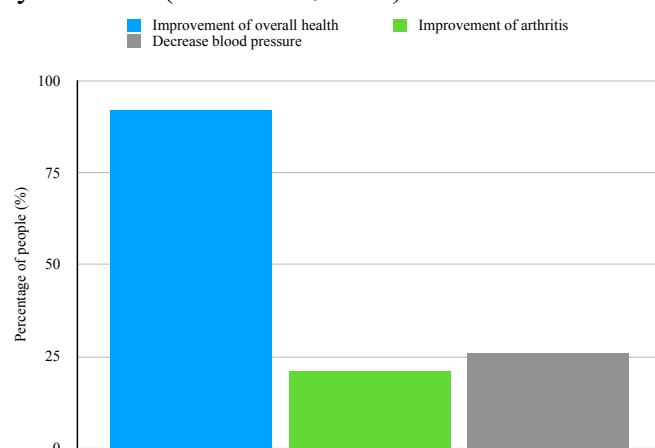


Figure 112. Benefits of knitting and crocheting. Made by author

Data source: Geda, Yonas E., et al. "Engaging in Cognitive Activities, Aging, and Mild Cognitive Impairment: A Population-Based Study." *The Journal of Neuropsychiatry and Clinical Neurosciences*, vol. 23, no. 2, Jan. 2011, pp. 149–154, <https://doi.org/10.1176/jnp.23.2.jnp149>.

Consequently, hand knitting activities can help people maintain mental energy by minimizing memory loss, which lowers the risk of Alzheimer's and dementia, and can

assist establish the ideal amount of difficulty for individuals with inadequate fine motor skills or eyesight loss.

This research also suggests that a bunch of studies on adults aged 70-89 have shown that knitting and crochet can boost a knitter's self-esteem and sense of purpose, connecting the knitter to tradition, even for those who may not remember ever learning to knit by hand. Many people with Alzheimer's disease struggle with short-term memory but still retain memories of earlier years, which means they can still engage in the activity of knitting and crochet as long as they have ever learned these techniques. The repetitive motions of knitting and crochet mobilize the cerebellum, which plays an important role in sensory perception, coordination, and motor control, to form muscle memory in the hands, allowing skills to be retained. In the process of knitting and crochet, our actions and movements are reflected in maps within our brains. Knitting



Figure 113: Joe Smailes

Photo source: <https://www.alzheimers.org.uk/get-support/publications-and-factsheets/dementia-together-magazine/knitting-group-providing-way-people-dementia-remain-involved-community>

maps will be regularly reinforced because most knitters knit three to five times a week, while many knit every day (*Betsan Corkhill, 2014, p.43*).

Alzheimer's Society magazine researched a dementia knitting group in South Yorkshire. Joe Smailes (Figure 113), who has Alzheimer's, is an ex-policeman and served in the war. He still remembers and feels the hand knitting and sewing skills his mother passed on 67 years ago. His interest was rekindled when he heard about the knit2gether group. He found participation in the group therapeutic and social and brought back many happy memories (*Stephen, 2015*).

## 5.5 Knitting and crochet can relieve stress

### 5.5.1 The manual activity

Stress is a normal human reaction that drives us to deal with life's obstacles and hazards. It is a condition of concern or mental strain brought on when individuals face difficulties or challenges. Stress is recognized to aggravate the majority of medical disorders and to have a role in heart disease, depression, and other chronic illnesses. Doctors are recommending individuals to manage stress as part of overall health in light of our increasingly demanding lifestyles. Knitting and crocheting offer long-term health benefits, as noted by pain specialist Monica Baird in Caley Walsh's 2009 "PRLOG" piece headlined "Knitting and crochet offer long-term health benefits". Knitting really changes the chemistry of the brain, reducing stress hormones and elevating feel-good chemicals like serotonin and dopamine (Walsh, 2009). Craft Yarn Council Survey of

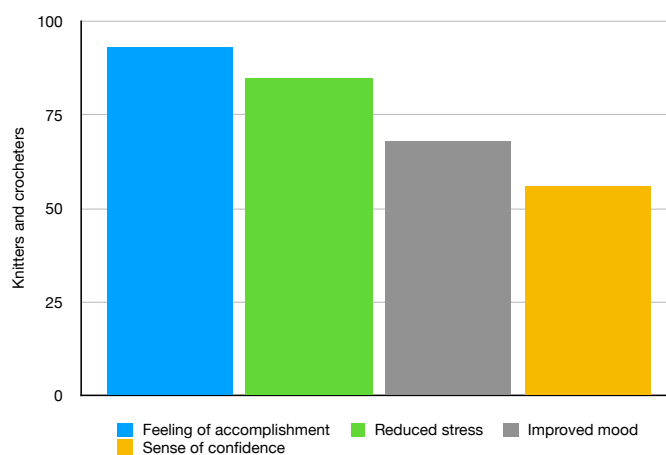


Figure 114: A survey of knitters and crocheters found participants cited the following benefits from the hobby

Data source: <https://textileartscenter.com/feature/knitting-as-therapy/>

3,500 Hand Knitters Finds 85% Reduce Stress by Hand Knitting and crocheting (Craft Yarn Council, 2018) (Figure 114).

Methodical manual activity not only increases the aforementioned neurotransmitters. But achieving your goals also has a positive impact, which is much greater than the impact of being rewarded for the effort you don't put in. The process of knitting is long, but joyful. When our brain is stimulated by this labor, it responds with a calm, peaceful response that makes stress signals lower. This is especially true when you finish a piece and the joy of seeing the finished product is a reward.

### 5.5.2 Scientific studies

As Tim Collins points out in his article “*Should doctors prescribe KNITTING? Busy hands alter the brain's chemistry in the same way as medication and could boost mental health, claims neuroscientist*” on Mail Online, Dr. Kelly Lambert, a neuroscientist at the University of Richmond, used rats to study the relationship between hands and the brain. She found that motivated rats had better mental health than those who were rewarded directly, while those who were rewarded without having to do the work themselves showed higher levels of stress-related chemicals. Dr. Kelly believes that this relaxation response to physical work develops in our brains as a reward for learning to navigate our environment. According to Dr. Kelly, our brains developed this soothing reaction to manual dexterity as a reward for grasping the outside world. She coined the term “behaviorceuticals” for this phenomenon. It's not really a drug, it's a behavioral activity that people engage in that releases changes in the neurochemistry of our brains in the same way that a drug can change the neurochemistry of our brains (Collins, 2018). Animal studies have shown that repetitive movement enhances the release of serotonin (Jacobs & Fornal, 1999) (Jacobs, Martín-Cora, & Fornal, 2002). Serotonin raises mood but it also calms and is an analgesic. People often instinctively engage in repetitive, rhythmic movement when they are stressed or traumatised. They are intuitively self-soothing as they rock or pace or tap. Frequent knitting (more than three times a week) can help people feel calmer and happier – even those with clinical depression (Riley, Corkhill, & Morris, 2013).

Psychiatrist with the Columbia College of Physicians and Surgeons, Dr. Carrie Barron, praises knitting as an effective way to alleviate anxiety and depression in her book “*The Creativity Cure: How to build happiness with your own two hands*”, she said

“The rhythmic, mathematical nature of the craft keeps the mind absorbed in a healthy way, ridding it of stressful thoughts and allowing for internal reflection.”

Barron calls knitting “a powerful, preventative medicine like an anti-depressant that seems to be doing something antidepressants and psychotherapy cannot do.”

(Barron & Barron, 2012) .

Based on these findings, we may conclude that knitting may be a useful treatment for

mental health disorders since the brain's dopamine and serotonin levels are raised by repeated hand movements like knitting, which are crucial for regulating mood. Dopamine supports cognitive function and acts as a natural antidepressant. Dopamine-producing activities are especially crucial for persons at risk since depression lowers the quantities of these chemicals in the brain. Depression and Alzheimer's disease frequently coexist.

In the article of Caley Walsh, it also notes that Dr. Herbert Bendon, an associate professor of medicine at Harvard Medical School and director of the Massachusetts General Hospital's Institute for Mind-Body Medicine, notes that knitting induces a “relaxation response” in the body that can lower heart rate and blood pressure as well as aid in disease prevention. In general, knitting and crocheting have a relaxing impact that can aid in treating illnesses like asthma or panic attacks as well as controlling anxiety. Repetitive motions have also been demonstrated to benefit youngsters with ADHD and disruptive behavior management (*Walsh, 2009*).

According to Dr. Fabio Ricci, director of the breast department at the Santa Maria Goretti Hospital in Latina (*Moscaritolo, 2021*), knitting and crocheting can help lower anxiety and stress levels because they lower the levels of adrenaline and norepinephrine, which are chemicals that our brains produce in response to stress. The sound of the iron is like a mantra, a calming sound that affects on the prefrontal cortex of the brain, which is responsible for thought, ideation, and imagination, relieving the brain of anxieties. Because hand manipulations activate certain brain regions, they can halt the aging process. Ultimately, by bringing people together and fostering social interaction, it helps the social process forward while enhancing communication skills and preventing feelings of isolation and sadness. Every facet of life encourages perseverance.

### **5.5.3 Bestsan Corkhil**

Author of the book “*Knit for Health and Wellness: How to Knit a Flexible Mind & More*” and former senior physical therapist Betsan Corkhill has developed a website called “*Stitchlinks*” to examine the benefits of what she terms therapeutic knitting. 54 percent of knitters who were persistently sad said that their symptoms lessened when they knitted, according to research she did for her website. Furthermore, Corkhil

discovered that when knitting, nearly all of the knitters who had chronic pain reported a decrease in their symptoms.

Her book mentions that the effects of hand knitting on the brain are similar to the effects of meditation. Regular meditation is known to have numerous benefits for health (*Davidson & Kabat-Zinn, 2004*) (*Kabat-Zinn, 2013*). According to her book, meditation may promote healing, lessen inflammation, foster optimism, and even support the development of new brain cells and neural networks. Stressful thoughts or sensations may all too easily intrude on the meditative state, and sadly, those who need it the most—the anxious or sick—are also frequently the ones who find it most challenging to acquire. Entering a meditative-like state appears to happen as a natural side effect of knitting (*Betsan Corkhill, 2014, p.49*). Everything becomes automatic when we are able to knit without the need to refer to designs since we can rapidly get into the flow of the activity. The motions are as rhythmic as a mantra due to their repetition, yet we are also so engrossed in the act that we lose track of time. She said that knitting has the capacity to both enter and exit meditative loops, suggesting that the reflexive character of the motion may be crucial in bringing the mind back to a more proactive, forward-thinking state. The idea that using automatic motions might enable us to access the subconscious mind has a lot of therapeutic promise. This has the potential to open up the benefits of meditation or knitting to a wider audience – the elderly, learning disabled, children – without them having to accept or understand the underlying concepts, or engage in an involved learning process.

#### **.5.4 Tom Daley effect**

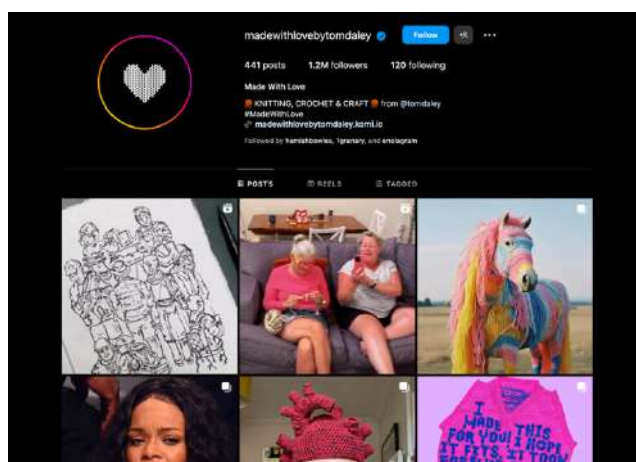
During the women's 3 meter springboard final at the Tokyo 2021 Olympics, renowned British diver Tom Daley was spotted knitting in the stands (Figure 115). This photo went viral on social media, giving the famous diver much more attention than his Olympic gold medal ever could. It was made known to people all over the world that he was an avid knitter and that he also started to inspire knitters. He said on Instagram that he now uses knitting and crochet as a means of stress relief, tranquility, and optimistic thinking. In an interview with Alice Thompson for Time Magazine, Daley stated that he and his family were forced to stay quarantined at home in London during

the New Crown pandemic and that they were unable to get ready for the Olympics in Tokyo (Thomson, 2023). As a result, he took up knitting as a hobby and created a professional Instagram account called “Made with love by Tom Daley” (Figure 116), where he shared his creations and sold them to raise money for charitable causes.



**Figure 115.** Great Britain's Tom Daley knits in the stands Sunday during the women's 3-meter springboard final at the Tokyo Aquatics Centre at the Olympic Games.

Picture source: <https://www.npr.org/sections/tokyo-olympics-live-updates/2021/08/02/1023738433/tom-daley-knitting-olympics>



**Figure 116.** Tom Daley's personal handmade Instagram account

Photo source: <https://www.instagram.com/madewithlovebytomdaley/?hl=en>

After that, he partnered with one of the most famous yarn website “Love Craft” to launch a range of knitting kits on his personal knitting website (Figure 117). In June 2022 he celebrated Pride Month by collaborating with luxury menswear brand Ami Paris to launch two sweaters in a rainbow of colors (Figure 118). Proceeds from this collaboration were donated to the Kaleidoscope Trust, which supports LGBTQ2+ people in the Commonwealth, and in October 2022, he launched his own knitting book, “Tom Daley-made with love” (Figure 119).



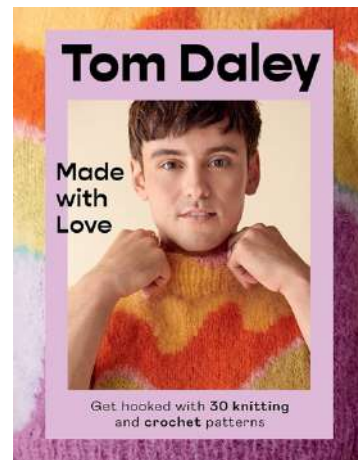
**Figure 117.** Crochet kit

Photo source: <https://www.bytomdaley.com/crochet-your-own-penis-keyring-light>



**Figure 118.** Ami Paris x Tom Daley

Photo source: <https://www.pusspussmagazine.com/tom-daley-x-ami-paris/>



**Figure 119.** Made with Love by Tom Daley

Photo source: <https://www.amazon.com/Made-Love-knitting-crochet-patterns/dp/0063282224>

The sight of Daley winning medals without dropping a stitch has encouraged more men to get involved, says UKHKA spokesperson Juliet Bernard. A quarter of the people using its site, which supports independent wool shops, were now men, she said, up from about 10% before the Olympic Games. Meanwhile Daley's status as a national treasure has catapulted knitting kits and wool into the 2021 John Lewis retail report, which identified key shopping trends and cited a doubling of sales of men's Speedos, with demand for needles and wool jumping nearly 90 percent in August after Daley was spotted knitting at a Tokyo stall (Wood, 2022).

## 5.6 Therapy group

### 5.6.1 Overview of knitting therapy group

Enjoying social contact is an important part of living life to the full. Social engagement

has been found to be beneficial to health and wellbeing on many levels. A study in 2012 found that people who are socially engaged and mentally active are 40% less likely to develop dementia (*Valenzuela et al., 2012*). The combination of physical, mental and social activity is important. The portability of knitwear is important to its success as a health and socializing tool. A kit can be carried around to solve problems on the go and on the go. In a sense, the knitting set can also be considered “portable”. It can easily fit into the busy schedules of school, hospital and any therapy group. It is easy to set up and requires no time-consuming cleanup. From a sustainability point of view, the learning process involves no more wasted materials to promote environmental protection and sustainability. Mistakes can be corrected while knitting and yarn can be reused. Knitting “works” as an individual activity that is enhanced by attending a group. The benefits of attending supportive social groups are well documented (*Staricoff, 2004*).

Learning the craft of knitting resulted in substantial gains for 38 women with eating disorders who had anorexia nervosa, according to a 2009 University of British Columbia research on group knitting therapy. 74% of the ladies reported that the activity helped them to feel less anxious and to stop worrying about their issues (*Clave-Brule, Mazloum, Park, Harbottle, & Birmingham, 2009*).

According to an essay on knitting and happiness, knitting fosters cooperation and lessens conflict. The position of the knitter’s hands increases personal space, which acts as a buffer to the outside world, enabling the knitter to go to places she or he would normally feel unable to attend (*Hemmings, Riley, Maddock, & Corkhill, 2014*). Thus, shared objectives made it simpler for participants to go to gatherings by themselves, giving them a secure means of growing their social networks, accumulating social capital, and making new, sustaining connections. This article also discusses how knitting clubs offer a level playing field where people with different life experiences may interact with one other in a fair and equitable manner.

### **5.6.2 Dr. Mia Hobbs**

Dr. Mia Hobbs, a clinical psychologist, writes about how knitting has supported her own health condition and professional life. Mentioning the gift of knitting she received

from the whole team when completing her final year clinical training placement (Figure 120). She followed this idea in her Child and Adolescent Mental Health Services team, making blankets for several colleagues who were expecting a baby and she felt the strong morale of the team (*Hobbs, 2021*).



**Figure 120.** The leaving gift

Photo source: <https://drpaularedmond.com/therapeutic-knitting/>

Half of the respondents said they belonged to a knitting group, and ninety percent of the group said they had made several or more friends through knitting in a July 2010 survey intended to ascertain the effect of knitting on people's psychological and social well-being as a precondition for additional research into the therapeutic potential of knitting (Hemmings, Riley, Maddock, & Corkhill, 2014). Group knitting has been reported to increase social confidence and a sense of belonging. Surveys have shown a significant association between membership of a knitting group and feeling happier and better about themselves for people suffering from depression, and that knitting allows members to feel calmer in social situations, where they don't need to feel paranoid about having nothing to say. Knitting was also found to encourage further skill acquisition, including knitting skills and other transferable skills.

### **5.6.3 Gomitolorosa**

Gomitolorosa is a non-profit association established in April 2014, whose goals include environmental protection, restoring well-being and promoting social solidarity (*Gomitolorosa, 2014*). They believe that hand knitting and crochet is an activity that can bring huge benefits to physical and mental health.

They consider crocheting and hand knitting to be creative, trendy, and therapeutic crafts as well as enjoyable past times. In addition to helping patients and their families heal from anxiety related to treatment expectations and future prospects, their goal is to bring wool therapy into hospital waiting rooms, medical facilities, and health institutions. It also aims to foster social solidarity and communication among various groups of people. In 25 hospitals and other medical and health facilities spread throughout 11 Italian regions, they conducted this exchange activity (*Gomitolorosa, 2012*)(Figure 12). Additionally, Gomitolorosa demonstrates its unwavering support for sustainable fashion by recycled wool, turning it into brand-new yarn, and donating it to charitable endeavors that benefit underprivileged, elderly, and children.



**Figure 12.** Gomitolorosa organization partners with hospital for wool therapy

Photo source: <https://aslbi.piemonte.it/giornata-mondiale-sul-tumore-ovarico-gomitolorosa-consegna-kit-personali-di-lanaterapia-alle-pazienti-dellospedale-asl-bi/>

In addition to supporting wool therapy, it also increases awareness of solidarity movements, encourage handknitting in public spaces, and offers mental health healing to patients and their families in treatment settings like hospitals. They made and donated 40 hand-knitted blankets to the hospital on World Parents' Day, June 1, 2020, using 14,000 kilograms of surplus Italian wool production recycled since 2012 (Moscaritolo, 2021).

#### **5.6.4 Knit2gether**

In order to assist locals with dementia engage in useful activities and provide caregivers with a respite, dementia support worker Adele Lacy started the Knit2gether organization in South Yorkshire, England, in 2014 (*Stephen, 2015*). Adele claimed that

during home visits, she saw that many service users felt helpless and that she wanted to create a company that might offer them a sense of accomplishment. And even if people lose interest in everything else, knitting and crochet are the kinds of talents that never goes away. One of the volunteers, Karen Lacy, the mother of Adele, said the group made a significant difference in people's lives because its members genuinely enjoyed one other's company and the opportunity to interact with others.

Members of Knit2gether may also contribute back to the community. Barnsley College fashion students knit the squares from May to December, then crochet them together to create blankets for the homeless. The eight blankets were given to the Barnsley church pop-up initiative during the group's Christmas celebration, during which nursery-aged youngsters sang songs. The next charitable endeavor for the group is to knit "spin bags" for nearby hospitals. These bags provide persons suffering from dementia exercise and mental stimulation in addition to warmth and comfort.

## **5.7 Summary of the chapter**

Crochet, knitting, and happiness are closely related activities that have been believed to have healing properties for centuries.

Crochet and knitting both require repetitive movements that can trigger a state of concentration, similar to meditation. Focusing on stitches and patterns helps to quiet the mind, reduce stress and promote relaxation.

Many studies have shown that engaging in crochet or knitting activities can reduce stress hormone levels. Rhythmic movement and the touch of yarn can have a calming effect, helping individuals cope with anxiety and tension.

Completing a crochet or knitting project can give a sense of accomplishment and boost self-esteem. Witnessing the tangible results of your efforts can enhance your ability and satisfaction.

Crochet and knitting often promote social interaction and community building. Artisans come together to share techniques, patterns and stories, creating a sense of belonging and camaraderie.

These crafts stimulate the brain and improve cognitive function. Seeing patterns,

counting stitches, and deciding on color and design all require mental focus and problem-solving skills that help maintain cognitive acuity, especially in older adults.

Crochet and knitting provide a creative outlet for self-expression. Choose yarn colors, experiment with textures, and design unique pieces that allow individuals to channel their emotions and express their personality through their craft. Having a hobby like crochet or knitting can give people a sense of purpose and structure in their lives. It offers a productive form of leisure and is especially beneficial for retirees or those struggling with depression or loneliness.

Overall, crochet and knitting offer a holistic approach to health that addresses physical, emotional, and social health aspects. By incorporating these crafts into their lives, individuals can experience better moods, less stress, and greater satisfaction.

# Chapter 6

## Conclusion

In summary, this dissertation comprehensively explores the historical, cultural, and environmental dimensions of crocheting and knitting, revealing their far-reaching significance in a variety of fields.

This dissertation's study of the history of crochet and knitting reveals the intricate evolution of these crafts, tracing their origins to ancient civilizations and their enduring presence in cultural traditions around the world. From practical necessity to artistic expression, crochet and knitting have been woven into human history, symbolizing sophistication, creativity, and social cohesion.

The concept of slow fashion is an important lens for understanding the enduring significance of crochet and knitting crafts in today's fast fashion culture. By prioritizing ethical production, sustainable materials and craftsmanship that respects labor, Slow Fashion promotes a shift toward thoughtful consumption patterns to reduce waste. Crochet and knitting epitomize the spirit of slow fashion, embodying the principles of authenticity, durability and respect for tradition. Their inherent labor-intensive craftsmanship and greater emphasis on quality resonate deeply with the values of sustainable attitudes towards life and design.

In addition, the fusion of crochet and knitting in the fashion industry and other areas of design highlights their versatility, malleability and enduring appeal. From high-end fashion to everyday essentials, these crafts offer endless possibilities for creative expression and innovation. In addition to apparel, crochet can be applied to interior design, art installations, and more, demonstrating its adaptability and enduring relevance in a variety of creative environments, while also bringing value to craftspeople. Crochet and knitting give the brand a deep historical significance and a sense of ethics.

In the end, the health benefits of crochet and knitting are a compelling aspect of its significance. Beyond their aesthetic and functional appeal, these crafts offer therapeutic benefits that contribute to overall health. Studies have shown their potential to relieve stress, enhance cognitive function, and promote relaxation, making them invaluable tools for self-care and mental health.

Essentially, this thesis reveals the history, culture, sustainability and positive impact on people's health in the field of crochet and knitting so that more people can learn about these two crafts and learn about slow fashion. As a slow fashion craft, crochet and knitting are portable and easy to learn, allowing more people to contact and understand slow fashion, and contributing to the sustainable development of the fashion industry. As we continue to navigate the complexities of modern life, these timeless crafts act as steadfast partners, weaving together tradition and creativity. Through constant exploration and appreciation, we recognize them as enduring historical legacies and embrace their transformative potential to shape a more sustainable and ethical design industry in modern times.

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