A History of Hand Knitting in the British Isles and My Contemporary Adaptation

by

Nora Chisamore

A thesis presented to the Honors College of Middle Tennessee State

University in partial fulfillment of the requirements for graduation from

the University Honors College

Fall 2021

Thesis Committee:

Dr. Lauren Rudd, Thesis Director

Dr. Philip Phillips, Thesis Committee Chair

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	by	Nora	Chisamore
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APPROV	ED:
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Dr. Lauren Rudd, Thesis Director

Associate Professor; Textiles, Merchandising, and

Design

Dr. Philip Phillips, Thesis Committee Chair

Associate Dean, University Honors College

Abstract

The history of knitting is long and diverse, spreading across continents and islands, all with their own varied techniques. The British Isles are known for their long history in the wool industry and their connection to knitting. This project is to research and record the history of knitting in the British Isles. The different techniques are knitted as samples to demonstrate the style and are based on or from historical patterns. The traditional techniques are then interpreted and redesigned to echo contemporary understandings and interests. This thesis includes sections on England, the Channel Islands, Wales, Scotland, and Ireland. Each section includes a written history, a sample based on historic patterns, and the relevant charts for the sample. The uniqueness of cultural historical knitting techniques is in danger of being lost. This study points to ways of preserving them for the future. Part of keeping the techniques is bringing to the focus in the current day. I have designed a line of six sweaters based on the historic knitting styles and knitted and fully patterned one of them.

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List of Terms

Back stitch: A sewing term. A strong stitch where for each stitch forward you take half a stitch back looping the yarn in the fabric

Blocking: "The process of dampening finished knitting, shaping it to the desired finished size and letting it dry."

Cables: "A pattern element characterized by one or more stitches that have been worked out of order so that the resulting pattern has a twist in the columns of stitches."

Cast off: "Ending a piece of knitting by locking all the live stitches together so they won't unravel" Also called a bind off

Cast on: "Making and placing the beginning stitches on a needle"

Carding: Process of straightening out and aligning the fibers prior to spinning

Circular Needles: Two knitting needles that are connected at the ends by a thin flexible cord

Double points: Short needles with points on both ends, they come in sets of four and five and are used to knit in the round

Eyelet: "A decorative hole made in knitting by working a yarn over on one row, then working the strand made by the yarn over as if it is a stitch in the next row"

Garter: A pattern where the knit stitch is the only stitch used for all stitches in all the rows

Gauge: "the number of stitches per inch and rows per inch on a knitted project, usually measured over 4 inches."

Graft: Sewing together two pieces of knitting in a way that mimics the knitting and does not look like a seam

Gusset: An extra area of fabric that is added to an area of high stress in a garment that allows more room for movement

In the round: Knitting in a circle. The next row starts in the same place as the last. Do not turn your needles.

Intarsia: "A colorwork technique in which sections of color which are grouped over several stitches and rows are worked without stranding, and the yarn is twisted at the edge of the color on the back of the work, dropped for the remainder of the row and then worked again when reached on the next row

Kitchener stitch: A stich used in grafting that appears like another row of stockinet

Knit: the most basic stitch, one of the two stitches that make up all knitting. Yarn is worked from behind and the top of the stitches of the previous row are pushed to the back

Knitting flat: knitting a flat fabric. The next row starts where the previous row stopped, the needles are turned to accomplish this.

Mohair: yarn made from the wool of an angora goat

Moss stitch, seed stitch: the names are used interchangeably. Knit one purl one across the row and on the next row knit where there is already a purl to create a texture on the fabric. Double moss stitch is alternating every other row.

Plies: the individual strands that make up a piece of yarn. Each ply is spun separately and then they are spun together in the opposite direction.

Purl: The second most basic stitch, one of the two stitches that makes up all of knitting.

Yarn is carried in the front and the top of the stitch in the previous row is pushed to the front.

Ribbing: Alternating knit and purl stitches, combination may vary, with the next row repeating the first. They create "ribs" in the knitting

Stranded colorwork: "in color work, stranding is when you hold the color not in use to the backside of the work until needed. The result is long and short strands of yarn across each row on the backside of the finished knitting"

Stockinet: Alternating rows of knit and purl

Slipped stitch: moving a stitch from one needle to the other without knitting it.

Worsted: The fiber has been carefully prepared to make the fibers run as straight and parallel as possible to achieve a thinner yarn with less fuzziness around it

Woolen: the fiber has not been as carefully prepared and spun so there is some space in the fibers, and it is generally a bit fuzzier

Weight of yarn: "Generally, the thickness of the yarn."

Yarn over: wrapping the yarn around the needle in between stitches to create a new stitch.

All definitions are from *Knitting: The Complete Guide* by Jane Davis.

List of Abbreviations

K: Knit

P: Purl

K2TOG: Knit two stitches together

PSSO: Pass slipped stitch over, in this instance you would slip a stitch, knit two stitches together and then pass the slipped stitch over the knit two together stitch and drop the slipped stitch off the needle

SSK: Slip, Slip, Knit. Slip two stitches then knit them together

STS: stitches

Ganseys

The fisherman's *gansey* has many names but is essentially a sweater. It can also be called a jersey or a guernsey, but those are technically the names for the sweaters of the Channel Islands that they are named for. Ganseys likely evolved in England from the knitted frocks (a shirt) and waistcoats (long vests) that were knitted during the time of Queen Elizabeth I. Fisherman's ganseys are usually dark blue or sometimes grey, so they would not show grime from working on boats. The basic gansey construction includes ribbing at the bottom hem and sleeve cuffs that could be unraveled and reknitted if the yarn starts to fray, diamond shaped gussets under the arms to allow for more movement, and sleeves that end above the wrist to prevent skin chafing from wet wool (Around and about Yorkshire, 2014, video). They are knitted in the round on multiple double pointed needles so there "were no seams and therefore no points of weakness" (Gordon, 2010, p.106). Ganseys are made from thin wool yarn that typically has three or more plies. The thinness of the yarn and needles means the yarn creates a thinner and closer web that lets in less wind and water. Wool is a good insulator even when wet and the lanolin in the wool will help slightly to keep the wearer dryer. Lanolin is a natural oil found on sheep's wool that helps to keep the sheep clean and wicks water from the sheep, it helps with spinning yarn and works well in hand lotion.

The basic structure of the fishman's gansey is generally the same throughout England, the Channel Islands, and Scotland since it proved very functional. The differences among the regional sweaters lay more in the decorative elements of the ganseys. Ganseys are decorated with patterns created through alternating knit and purl

stitches to create a raised design, "most patterns are arranged vertically, divided by wide or narrow bands in plain knitting, moss-stitch, garter stitch, rib, or ropes, or so on" (Gordon, 2010, p.101). The designs were often marine inspired, based on the surrounding area, or "meant something special to knitter and the person they were knitting for" (Gordon, 2010, p.103). Knitters would either learn the patterns from friends and family, create their own, or observe someone's gansey and copy the pattern from memory. Regarding pattern changes, Gordon states that "fishermen followed the herring on their seasonal migratory route around the coast and were, in turn, accompanied by curers and female gutters to process the catch," (Gordon, 2010, p.103) and fishermen sometimes married outside of the town they were from causing patterns to travel up and down the British coast allowing the individual motifs to move and adapt.

In a video about an exhibit on ganseys in Yorkshire, the locational differences were explained regarding the correlation of regional designs to various aspects of the gansey sweater. One town would include designs in the yoke of the sweater, around the neck and chest; another town would include full bodice designs all the way down to the ribbed waist band; and another would have three or four inches of space between the ribbing and the start of the patterns where they would then put the initials of the wearer. "Cornish ganseys or knit frocks are traditionally much plainer, often using a thick warm rib, now known as fisherman's rib" ("Knitting traditions of the British Isles and Ireland," 2021). It is told that this could be used as a way to identify a body who had been lost at sea. The people who found the body would be able to tell what area or town the sailor came from and would be able to bring the body back to then be identified. This is not as

specific as the stories of a knitter or family having a specific pattern and using that to identify the body, but it is more likely since it is less specific.

Ganseys were usually knit for the fishermen by their wives, mothers, or sisters and they usually had a few different ganseys. "Most men owned up to six ganseys at one time-- one was new, one was almost new, another was a 'go-ashore' gansey and a further three for working wear" (Gordon, 2010, p.102). The best gansey would be worn on Sundays to church. In some places they even had wedding ganseys that the bride would knit for the groom to wear at the wedding (Around and about Yorkshire, 2014, video). Sunday ganseys and wedding ganseys could be lighter colors as they were not used for work. While ganseys were usually knit for sailors by the women in their families there was also a commercial market for ganseys. "In some villages thriving cottage industries developed with individual knitters supplying chandlers in larger ports with ready to wear ganseys in return for a basic income" (Gordon, 2010, p.100).

Hand knitting of ganseys lasted through the industrialization of knitting; and continued together for decades before ganseys stopped being worn as one of the main clothing items of fishermen in the early twentieth century. There are still gansey knitters in England, but few make them consistently and even fewer sell them, since the time and money that goes into making ganseys are usually more than customers are willing to pay. There are pattern books and museums helping to preserve this valuable tradition.

Stocking Industry

The stocking industry in England lasted from the sixteenth century well into the nineteenth century. The industry began with knitters making stockings on order and then

being paid for the pair of stockings, but by the 1570s knitters in England were knitting stockings and then selling them to tradesmen for retail trade to customers (Edwards, 2010, p.71). Knitters also made and sold "waistcoats, petticoats (which were short coats), sleeves, nightcaps, and gloves" (Edwards, 2010, p.72). As stockings are something that everyone wore at all levels of the class system, there was a great need for stockings, so it guaranteed consistent work. Knitting was also easy to learn. Knitting, however, was not a very high paying job considering how much work had to go into each stocking. As such, knitting stockings to sell was a respectable job for the poorer people in society and a good supplement to other's income. "By the late seventeenth century reducing the poor rate and teaching the poor skills, including knitting, so they were no longer a burden on the parish, exercised the minds of many writers" (Edwards, 2010, p.75).

There were knitting schools that taught first adults and then later, with more success, children how to knit. While the idea was to teach the poor to knit it was easier to tutor children. As knitting stockings was a guaranteed job, teaching children from poor families how to knit allowed them to develop a skill that they could use throughout their lives to earn money. The knitting schools started in the late sixteenth and early seventeenth century across England, some with more success than others. Edwards traced over one hundred knitting schools in England (2010, p.76). The schools varied regarding the age and gender of the students. Some were boarding schools, but most were day schools. Each school had its own curriculum, some taught only knitting, some taught knitting and reading, and others taught knitting, spinning, mending, reading and "some form of religious knowledge" (Edwards, 2010, p.77). It was important for students to learn to knit fast. Interestingly, this was usually taught by winding four strands of yarn

that were all the same length together into the same ball and then having four students knit at the same time requiring them to knit at the same speed. The schools were operated on the money made from the sale of the stockings that the students made while learning. Apprenticeships were also available for people to learn knitting. Knitting and spinning was also taught to women and children in workhouses for the poor "for the benefit of inmate's souls and to reduce the burden of the charge on the parish" (Edwards, 2010, p.79).

Knitting in England was not just done by hand, there was also a strong industry for framework knitting. Framework knitting is a form of machine knitting that was similar to a large hand loom, the framework knitters moved the necessary yarn shuttles and adjusted the settings to create a fabric or pattern. "Rev. William Lee invented the stocking frame in 1589" (Smith, 1963, p.128) near Nottingham. The majority of the framework knitting industry was in in Nottinghamshire, Derbyshire, and Leicestershire (Smith, 1963, p.125). Framework knitting was originally performed in the home as part of the cottage industry until the technology to make larger frames was popularized. The larger frames did not fit in the homes of the framework knitters, so they began working in in larger buildings which eventually were similar to the knitting factories we see today (Smith, 1963, p.140). When the industry was still in people's homes whole families would work together, the men working the frames and the women sewing the seams and finishing the stockings but when machines were developed that sewed the seams along with knitting the item, the need to have sewers as part of the process was eliminated (Sharpe, 2000, p.106). Framework knitting was the framework for today's industrial

machines, although machine knitting did not completely surpass the hand knitting part of the stocking industry until the mid to late nineteenth century.

Part II: The Channel Islands

The Channel Islands lay between England and France in the English Channel. Of the seven inhabited islands, the two that are of note in the history of knitting are Jersey and Guernsey. Jersey is also known for Jersey cows and being the naming inspiration for New Jersey in America. Guernsey is known for being occupied during World War II. Despite being in the English Channel and part of Great Britain the Channel Islands are not part of England and are instead a separate entity. The people of the Channel Islands would want to have a section separate from England and as such I will be separating them. Also, their knitting history is separate from England's although they do interact.

The two islands, in particular Jersey, have had a substantial influence on the knitting industry and by proxy the fashion industry. Plain stockinet knit fabric, a row of knit alternating with a row of purl, is named for the islands— Jersey knit. When the islands became associated with stockinet knit fabric, people would also sometimes call it Guernsey instead, but Jersey became the more colloquially known and used term. As Rutt (1987) says in his History of Hand Knitting, "There were many indications that their knitting was treated as indistinguishable, and there is not real distinction between "guernsey" and "jersey" as names for stockinet fabric." (p.185) Both islands had large, active knitting industries. The stocking industry was extremely productive and most of the people on both islands found themselves working in the industry—men, women, and children. So many people participated that Jersey passed numerous laws that required people over a certain age to not knit during certain times of day and year in order to support the growing of crops (Rutt, 1987, p.186). There was also a law about only using three ply yarn for stockings and not two ply (Rutt, 1987, p.186). Three ply yarn is

stronger than two ply, so that law was intended to maintain product quality. The knitters also made and sold waistcoats (long vests) along with the stockings.

In Jersey, the people sold their knitting at a market in the town of St. Helier. Merchant buyers for England, France, America, Italy, and Spain would come each Saturday to buy from the knitters (Rutt, 1987, p.188). In Guernsey, the knitters sold their knitting through use of an exporter. "The family de Suasmarez was one of the chief exporters of hosiery from Guernsey" (Rutt, 1987, p.187). The de Suasmarez family exported stockings and waistcoats knitted in Guernsey to England and France and imported English wool to Guernsey for the knitters. Thomas de Suasmarez sold to England before the English Civil War and Matthew de Suasmarez sold mostly to his connections in France after the war. (Rutt, 1987, p.187)

The knitting industry in the Channel Islands lasted from the early sixteen hundreds through the eighteen hundreds when industrial knitting machines phased out the demand for hand knitted stockings. The industry faltered during the English Civil War in 1642, as most of their wool came from England by decree of England's government which was in turmoil; but after the war the import of wool picked back up and the industry continued. As Rutt says "after 1647 and the end of the war, things returned to normal, indeed almost too much so" (1987, p.187). Once again there were more people involved in knitting than in agriculture. Knitting was work for income, but it also became a social activity. In Jersey, the knitters would hold *veilles* which were essentially knitting parties. At veilles, people would gather and knit together, making it a community event where people could get to know their neighbors and talk. (Rutt, 1987, p.190) It was also a

way to meet potential romantic partners, "the knitting was in large part an excuse for boys and girls to meet and tease each other" (Rutt, 1987, p.191).

For most of the time that the Channel Islands had a knitting industry they produced stockings and waistcoats. When the industry was fading in the eighteen hundreds, they began to change the focus from knitting stockings to knitting sweaters (or jumpers as the English call them today), "The 'traditional' jersey patterns published by the Women's Institute of Jersey are interesting, but scarcely go back earlier than the last years of Queen Victoria" (Rutt, 1987, p.191). (The Victorian Era was from 1837 until the beginning of the twentieth century.) Because of how recently they began to knit the sweaters, it is unlikely that those sweaters were created without influence from the surrounding countries; and their similarities to the English fisherman's gansey supports that. In a comparison to English Ganseys, the sweaters knitted on Guernsey and Jersey are plainer, and made in stockinet with any added ornamentation being knit into the shoulders and armscye (arm hole seam). The sweaters were probably named for the islands more because of the use of plain stockinet stitch than because they were notably from the islands. However, the bottom edge of the sweaters is unique, with a bottom welt. It "has vented sides made by casting on the front and back separately and knitting the lower edge in two parts (Rutt, 1987, p.191)" then the two pieces are joined in the round and knitted as such from there.

The sample I knitted for the Channel Islands is a square of stockinet. This is a remarkably familiar technique since it is one of the first things that is taught to people learning how to knit. Stockinet is alternating rows of knit and purl when knitted flat.

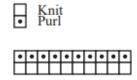


Figure 1: knitting chart for stockinet, read right to left and bottom to top

When knitted in the round stockinet is achieved by knitting all rows. This sample is knitted flat on size four needles with wool sock yarn. While not a new technique, stockinet is an important one to know.



Figure 2: Stockinet sample, front view



Figure 3: Stockinet sample, back view

Part III: Wales

The knitting industry in Wales has two significant aspects, the stocking trade in the North of Wales and the cap industry in the South. The cap industry and the particular popularity of the Monmouth cap occurred earlier than the stocking industry although there is some overlap.

Monmouth Caps

The cap industry in Wales was active in the south of Wales by 1449 as there "were cappers living in the town [Monmouth] in 1449 and they appeared in court during that year" (Buckland, 1979, p.1). Cappers is the term for cap makers and eventually was used as a surname for those in the profession. Monmouth caps specifically, developed at some point between the start of the cap industry and the first written use of the name in 1576 "in a letter from Lord Gilbert Talbot of Goodrich Castle to his father" (Buckland, 1979, p.6) in reference to a cap Lord Talbot had bought for him. By 1576, the caps were already known and increasing in popularity and production and hit their height in 1599 (Buckland, 1979, p.1). While the knitters were only paid a few pence to knit the caps the merchants and traders used a high markup and sold them for around eleven shillings (132) pence). Although Monmouth caps were quite expensive, "in spite of the inflated prices they thrived, and appear in songs, satires, and inventories throughout the seventeenth century, attached to soldiers, sailors, Welshmen, and 'the lower orders'" (Buckland, 1979, p.7). Sumptuary laws were created in Great Britain in 1488 and again in 1512 to support the cap industry requiring people to wear British made caps. The laws were disliked as the people disliked being required to buy and wear expensive caps and

frequently ignored the laws and they were eventually repealed in 1597 (Buckland, 1979, p.4).

The capping industry extended beyond Monmouth, in fact Monmouth caps were not exclusively made in Monmouth. Capping had moved to Bewdley and was established there by 1574. It is unclear why most of Monmouth's industry moved to Bewdley but perhaps Monmouth cap production moved because of plague in Monmouth, although as Bewdley was also later affected by an outbreak of plague that explanation does not seem likely. (Buckland, 1979, p.6). From Bewdley the caps were shipped to merchants in Bristol as part of their river trade on the River Severn which caused the caps to be disseminated beyond Monmouth and Bewdley.

Monmouth, Ross-on-Wye, and an area near Hereford called Monmouth Cap created a "triangular area known in the Middle Ages as Archenfield" (Buckland, 1979, p.10). In Archenfield, they grew rye and raised a breed of sheep that was then called Ryeland. The Ryeland sheep were what made that area of Wales so good for knitting caps, "the small, fine fleeces were unsurpassed by any other breed...the wool retains exceptional felting qualities" (Buckland, 1979, p.10). Soft wool works better for hats which are close to the face, while thicker, sturdier wool is better for stockings as it will wear better and last longer. The sheep were raised by the monks of Leominster, and they sold the wool. "When Queen Mary came to the throne, she granted Leominster a charter which gave such extensive privileges that it became known as the greatest market town within the county" (Buckland, 1979, p.10). This made it harder for the knitters in and around Monmouth to get wool and much of the industry moved up to Hereford.

Monmouth caps were likely created to be worn under a helmet as a lining. In the remaining extant example, it can be seen that the caps were worn close fitting to the head which would allow it to fit under a helmet. Monmouth caps also had a button on the top and double brim that usually had a loop attached to the bottom edge. The double brim is created by knitting in stockinet for twice the length of the brim and folding up the cast on edge into the hat and knitting the cast on edge into the next row of stitches. This creates a sturdy, thick, and neat looking brim. To aid in folding the brim, at the point where the brim folds the knitter can do a row of purl stitches moving the yarn out of the way of the fold. It is in the purl row that the loop would be added. The rest of the hat is knitted in stockinet. The hats were typically knitted in bulky wool and felted. The way the hats are constructed would make them durable and warm, and thus a desirable choice for people of all classes and occupations. They were shown to be a necessary requirement for exploring the new world. Monmouth caps were included on a supply list given out by the Virginia Company "and in 1607 they arrived in the new world with the first shipload to Jamestown" (Buckland, 1979, p.12).

Despite how well known the Monmouth caps were and how many references there are in literature to them, including Shakespeare, very few survive today in museums. There is also a lack of description of the caps in the literature and records mentioning them. As with much of the lost knowledge of history, the caps were just so ubiquitous at the time that no one thought it was necessary to write down a description. The description of Monmouth hats stated above comes from one of the few extant examples and it is in this particular style that Monmouth caps are being reborn.

Ravelry.com (a knitting and crocheting online community) has patterns for knitters who

want to make their own caps and for those wanting to simply buy one, a popular cooking historian on YouTube, Townsends, wears Monmouth caps in his video and sells them on his website and they are also available on etsy.com. Monmouth caps may not have had a huge resurgence of popularity, but they are still made and have a platform.

The sample I made of a Monmouth cap followed the style of the one described by Buckland and worn by Townsends. While the caps were typically knit in thick dark wool, usually brown, I knitted my sample in blue sock weight wool and did not full the wool after knitting. The hat fits as is and fulling it would make it too small. Fulling is the process of washing the knitted wool to cause matting as in felting. I used sock weight yarn in order to match a scarf I made for my dad as I will be giving him the hat after I complete this project, much like Lord Talbot gave a Monmouth cap to his father. I did include a button on the top. The folded brim was a technique I had done before but this time the instructions included the purl row which made it easier and neater looking. There is no chart for this sample.



Figure 4: Monmouth cap sample, side view



Figure 5: Monmouth cap sample, top view



Figure 6: Monmouth cap sample, inside view

Stocking Industry

The stocking industry in Wales was strongest during the eighteenth and nineteenth centuries, mostly in the Northern half of the country. One of the main markets was the town of Bala where knitters sold stockings every Saturday (Rutt, 1987, p.162). Men, women, and children all participated in knitting stockings as a source of income. Even those for whom knitting was not their main occupation might knit stockings to sell for additional income during harder times. Knitters would purchase wool that still needed to be carded and spun before it could be knitted, which was less expensive but made the process more time consuming and labor intensive for the knitters. If multiple members of a family were all working in the stocking industry, they often divided the labor so carding, spinning, and knitting were not all done by the same person. To make the most

out of their time when walking, women "knitt[ed] as they walked with loads on their heads" (Rutt, 1987, p.163). There was no wasted time.

With so many people in the stocking industry the knitters created community events. Many towns held knitting circles, or noswaith weu, which were similar events to the *veilles* held in the Channel Islands (Rutt, 1987, p.164). People would gather to talk, sing, tell stories, and socialize while knitting. These knitting circles typically would be held in people's homes. In the summer they would gather for a noswaith weu in an open field area in Bala (Rutt, 1987, p.162). When knitters gathered to knit together, they might have knitting competitions "in which knitters sat together working equal lengths of yarn...to encourage speedier work" (Rutt, 1987, p.166). This is similar to how knitting schools in England taught fast knitting. Another event was wool gathering. Poor women would get together at the end of June after shearing season and would journey around a predetermined area asking at each farm for any wool the farmer's wife would give them and would then gather remnants of wool from empty fields and from fences and branches (Rutt, 1987, p.164). Along with allowing the women an opportunity to acquire wool that they did not have to pay for, wool gathering also allowed women a chance to socialize, gossip, and work together.

The stockings that were knit for men were typically grey so they would not show dirt when working. Stockings knitted for women had more variety in their colors. The women were in charge of dyeing the yarn and chose to use more interestingly colored dyes. Rutt states that "very smart-looking stockings were made by dyeing one half of the hank while leaving the other half white" (Rutt, 1987, p.165). The stockings knitted in Cardiganshire were "blue-grey stockings with tops and toes in a natural white yarn"

(Rutt, 1987, p.166). The undyed wool would have a higher concentration of lanolin in it which would help strengthen the wool and make it more water resistant.

The stocking industry in Wales died out with the industrialization of the knitting industry. Since stockings were needed by all social classes, they were one of the first things to become industrialized. Machine made stockings would be faster and cheaper to make, which made the need for a hand knitted stocking industry obsolete. The knitters were forced to find other forms of employment.

Shetland Lace

The Shetland Islands are known for knitting, or *makking* as it is called in Shetland. One well known style is Fair Isle color work, but that is not the only style of knitting from Shetland. Knitters from the rest of the Shetland Islands participated in the creation and sale of knitted items. As with most of the other locations discussed in this paper the Shetlanders knitted and sold stockings. "Seventeenth century coarse functional stockings evolved into eighteenth century fine knitted lace and in the 1830s a new Shetland industry was born" (Chapman ,2015, p.13). As their hosiery industry started to grow, mostly in Lerwick and Unst, the knitters become known for the fineness of their knitting and spinning.

There are several theories about how the knitting of lace shawls was started including a story mentioned by both Chapman and Rutt where a guest, Mr. Charles Ogilvy on Shetland was given "a christening cap, hand knitted in open work, as a gift for his infant son" (Chapman, 2015, p.57). The hat was adapted by a friend of the Ogilvy's into an invalid cap for Mr. Frederick Dundas who in turn visited Lerwick and suggested to local knitters that they "imitate the fine stitches in knitted shawls" (Chapman, 2015, p.57). This is a very roundabout way of explaining how the knitters of Shetland progressed from knitting intricate baby hats to shawls that fit through wedding rings, but it importantly shows is that there was a consumer base for fine knitting from the start.

The lace was knitted on very thin needles referred to as wires with thinly spun yarn that was spun on a lint wheel, a small spinning wheel, the yarn was usually multiple

plies and so thin that when knitted the items looked like cobwebs. The yarn was spun by exceptionally talented spinners whose spinning ability was unmatched by people outside of Shetland for most of the time when Shetland lace was very popular. "One pound of wool could produce 25,600 yards of reasonably fine worsted" (Chapman, 2015, p.49). The yarn was worsted, not woolen, meaning that the spinners carefully brushed the fibers very straight before spinning so they could spin a thinner and less fuzzy yarn. While Shetland wool was spun with the wool of Shetland sheep that was not the only type of fiber used for the lace. Knitters also used other types of wool, silk, and mohair. This allowed them to expand their consumer base by widening the selection of materials available and being able to knit when it is harder to source Shetland wool. They also knit with other kinds of fiber when requested by a customer or by the truck system merchants.

Lace knitters would create the patterns that they wanted to use in their heads. "Shetland knitters produced their garments without the aid of a pattern book, and many were able to reproduce a pattern from sight" (Chapman, 2015, p.63). Some patterns were passed down in families, frequently and called by varying names, and these were combined with patterns the individual knitter created in a way that was unique and different for every item. This way no two pieces would be the same and this made it much harder to truly copy the Shetland lace. Mary Thomas says that there are few, "only ten being truly native" (1938, p.190). Although, Chapman explains that there was a lot of influence going both ways between the garments made on Shetland and the patterns meant to imitate their style, so the exact number of truly Shetland patterns is unclear. Of the patterns that Mary Thomas says are truly created on Shetland, she lists with a disclaimer that the names and sometimes directions vary from knitter to knitter, *Ears O'*

Corn, Cat's Paw, Print O' The Wave, Bird's Eye, Fern, Fir Cone, Sprout or Razor Shell, Old Shale, Acre, and Horseshoe (1938, p.191). Chapman includes motifs such as the Saltire or St. Andrews cross and other crown and flag motifs and she also draws connections with the lace knitting in Russia. There was plenty of cross inspiration and adaptation in the evolution of knitted lace, so the origin of the motifs and patterns are not as important as whether they were actually used by Shetland knitters.

The Barter Truck System was a system where local knitters would knit an item and then trade the item with a merchant for whatever goods the merchant sold that he decided could be traded for. The items the women could get were usually nonperishable food items, cloth, and some other items that were necessary to daily life but not to knitting or paying rent. "No merchant would exchange raw wool or worsted in their stores for hosiery or any other product." (Abrams, 2006, p.155) The women of Shetland would trade the tickets they were given by the merchants as IOUs to purchase items with other people on the island for perishable food items and money, so they could buy the yarn they needed to make more items to sell and to pay rent. "This was a system that could only operate upon co-operation and trust amongst female hosiery workers" (Abrams, 2006, p.156). The women could usually choose between the goods from the merchants or being paid money, but the merchants would only give less than the item was actually worth if they chose the option to be paid with money. The knitters typically chose to be paid with goods and then made more trades to get whatever else they needed. Some of the knitters knit what they chose and then sold to merchants and others "were employed by merchants to knit to order" (Abrams, 2006, p.156).

Shetland lace was popular in the eighteen hundreds through the early nineteen hundreds and particularly during the Victorian era. Hosiery was the original base of the knitting industry in Shetland. In addition to knitted stockings, knitters also knitted shawls and veils which became popular fashion items. They also knitted christening blankets and invalid caps. Items were made both in fine lace and in more everyday styles and yarns. The everyday shawls that the women of Shetland knitted for themselves were called *haps* and frequently had a version of the lace patterns knitted into the haps using larger needles and thicker yarn.

Shetland lace was so popular that many people in England and other parts of Britan tried to replicate it. The industrial age led to advances in knitting machines and technology which made it possible to create yarn and knitted garments similar to those of Shetland and sell the industrial imitations at a cheaper price. "The introduction of machine-knit Shetland lace did greatly affect the Shetland hand-knitted lace industry" (Chapman, 2015, p.145). Pattern books for knitting and other crafts started to be written and published as Victorian women wanted to learn how to create items for themselves, this was part of the Arts and Crafts movement. These pattern books frequently included instructions for items that they claimed to be Shetland lace or in the style of Shetland lace (Chapman, 2015, Ch. 4). Some patterns merely called for Shetland wool.

As fashions changed rapidly in the 1920s, the items created in Shetland also changed. It was no longer fashionable to wear shawls and veils, so the knitters adapted. A portion of the knitters changed their patterns to be lace blouses and shirts, items the women of the twenties would want to buy, "recognizing the changing face of fashion, the lace knitters included other articles in their repertoire: camisoles, opera tops, lace frocks

and bed jackets" (Chapman, 2015, p.240). Other knitters followed the rise of popularity of the Fair Isle sweater and switched to knitting color work instead of lace, "The choice between knitting a fine lace article, which could take many months to produce and just as many months to sell, or knitting a Fair Isle jumper which was guaranteed a quick sale due to it being a 'great rage' and 'the vogue' may not have been a difficult decision" (Chapman, 2015, p.240).

Knitters in Shetland have declined as fewer people have been taught by their mothers and grandmothers to knit, and few of those who know how to knit will sell their knitting for profit. Most of the knitters on Shetland choose to knit as a hobby for themselves or for their friends and families. Some of this decline is because the people of Shetland cannot sell their work for what it is worth. As Carden says, "this is still often far from lucrative for the knitters involved and is not on anything like the same scale of activity as Shetland's past hand knitting industry" (2018, pp.30-31). Most of the knitters in Shetland are aging and in recent years there has been a concern about the loss of this valuable cultural tradition and skill. There is true concern over who will teach knitting to future generations once the current knitters pass. The people of the Islands have produced a solution. The Shetland Peerie Makkers are a not-for-profit group that is "funded through crowdfunding and benefitting from yarn sponsorship from the local company Jamieson's of Shetland" (Carden, 2018, p.5). They teach knitting and, more importantly, the distinctly Shetland styles of lace and color work to school children. This is creating a new generation of Shetland knitters who can carry on the tradition with a love for the craft and the ability to create new patterns unique to Shetland, "tutors reported that while they might once have warned young knitters away from certain design choices, the

teenagers had consistently surprised them with the success of their less 'traditional' ideas" (Carden, 2018, p.24).

Shetland Wool Week is another way that the people of Shetland keep the knitting traditions alive by hosting this annual event. Wool Week is a week-long event that takes place ever summer and consists of knitting workshops, tours, and displays. People from all around the world come to Shetland to celebrate knitting. They also release a free hat pattern every year designed by knitters in Shetland. "Wool Week provides a platform for local knitters to teach, design or sell." (Carden, 2018, p.34)

For Shetland lace, I knitted two samples. The first of the two samples is a pattern that I found in a Victorian pattern book from 1843, My Knitting Book by Miss Lambert. The pattern I used was called "Shetland Pattern for a Shawl" and it was on pages 82 and 83. The pattern does not match any of the patterns that Mary Thomas says are native to Shetland but there is a good chance that there may have been a similar pattern used in a shawl that inspired this pattern or that was inspired by this pattern (Thomas, 1938, p.191). I used American size two needles and lace weight yarn, both of which are larger than the fine lace knitters would have used, since it was hard to find yarn that thin even during the height of Shetland's lace's popularity. The pattern was easy to follow and easy to memorize; and considering how the knitters would keep the patterns in their heads and pass them down orally, it makes sense that it would be relatively easy to memorize and rather repetitive. The fineness of the materials and finished product and the intricacy of the designs are what made Shetland famous. While they had to remember the patterns of each motif in a design with multiple motifs, I only had to remember a single motif's pattern.

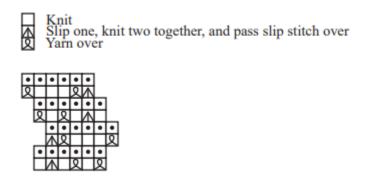


Figure 7: Lace chart. Read right to left, bottom to top.



Figure 8: Lace sample

The second sample that I knitted was of the structure of a square Shetland lace shawl. Both Mary Thomas and Richard Rutt were noticeably clear and spent much of their sections on Shetland lace explaining the importance of the structure of the shawl and how it differs from an English imitation (Thomas,1938, pp.192-195). Part of the wonder of Shetland shawls is how they do not have a cast on or cast off edge. Both casting on and

off create stable edges that have minimal elasticity. So, in order to have a shawl without tight edges, it is knit from a corner with increasing stitches; and means the shawl will have a softer and more flexible drape. As Mary Thomas says, "the method is ingenious, and accounts for the remarkable elasticity of all the edges and the soft, caressing fell of the shawl as it enfolds the shoulders." (1938, p.192) The knitter starts each piece by knitting the scalloped border, growing it from one stitch and lengthening the piece horizontally. Then a trapezoid shaped border is knitted along the straight edge of the scalloped border. From there the center square is knitted with a row of eyelets separating the trapezoid border and the square center. The scalloped edge and the trapezoid shaped border are then repeated three times without the square and the four pieces are sewn, or grafted, together. The grafting will imitate the appearance of the row of eyelets. I followed the instructions in *Mary Thomas's Knitting Book* (1938, pp.192-194) for the sample. I also used the same needles and yarn as the first sample.



Figure 9: Lace shawl sample, front view

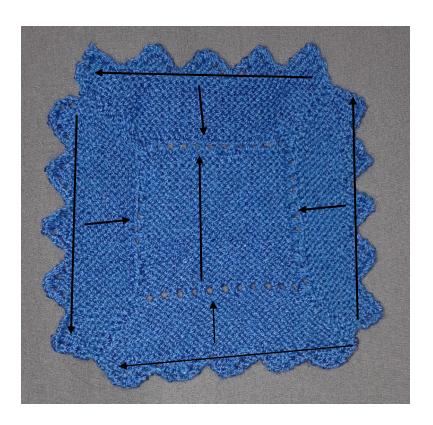


Figure 10: Lace shawl sample with directions of knitting shown

Fair Isle Color work

Fair Isle is located in the islands of Scotland. Despite being part of the chain of Shetland islands it lies between the Shetlands and the Orkneys. One of the things that the island of Fair Isle is most known for is its traditional color work knitting. Fair Isle color work is a form of stranded color work that carries two different colored yarns across each row alternating stitch by stitch to form a pattern, with the yarn not currently in use carried behind the fabric leaving *strands* of yarn on the back of the work. If a different yarn is exchanged for one of the yarns in use, it is changed at the end of the row. Many colors can be used throughout a project, but they typically run in pairs, yarns A and B being paired, and yarns C and D being paired; but rarely changing the pairings within the garment. The colors used were mostly created with natural dyes found on Fair Isle from

lichen and a few other plants, although some dyes/plants were imported. The main colors used were from the lichen dyes turning the yarn red, brown, orange, yellow, or black, or variations thereof according to Rutt (1987, p.179). To allow the stranded colorwork to continue being knit in the round the knitters would knit the sweater in the round after moving the stitches that form the bottom of the armhole with about five extra stitches across in the area of the sleeve and knitting the two colors alternating each stitch in this spot. When the knitter reached the shoulders of the sweater, before sewing together the shoulders, they would sew two or four lines of a stable stitch vertically between the stitches in the extra stitches and then they cut the knitting in between the lines of sewing. From there they would pick up stitches from the newly created edge and knit the sleeves. This technique is called steeking (Gibson-Roberts and Robson, 2004, pp.85-87).

Fair Isle's history regarding the origins of its color work is unclear. There are two theories about how the color work began. This first theory is more likely. Because of the trade between Fair Isle and the Scandinavian nations, as Laurenson states, the trading would have occurred over a longer period of time, allowing knitters more time to adopt a new style of knitting (2014, p.29). Primary support for this idea correlating Scandinavian knitting and Fair Isle knitting is that the Shetland Islands and the Orkney Islands (now a part of Britain) were owned by Norway from the Viking invasions in the eighth and ninth centuries until the fifteen hundreds. So, there would have been a lot of cultural exchange and sharing of artistic motifs. Evidence shows similarities in the motifs used by both cultures. The horizontal design of the patterns and the use of the star, or snowflake, or flower as they are all structured similarly, feature prominently in both. Also, Rutt says

that the earliest source mentioning color work in Fair Isle also wrote a source mentioning color work in Norway around the same time (1987, p.177).

The second theory of how color work came to Fair Isle is that a ship the Spanish Armada got lost in 1588 and the crew was stranded in Fair Isle until they were able to leave again and may have taught or inspired the people of Fair Isle to do color work (Laurenson, 2014, p.29). While this theory sounds more interesting, it is not as likely as the former. The Spanish sailors were not on Fair Isle for very long, seven weeks according to Rutt, and while some accounts say that the people of Fair Isle and the Armada got along, others say they kept their distance which would make it hard to learn a knitting style (1987, p.178-179).

Color work is adaptable and has continued to be modified since the people of Fair Isle began using this style of knitting. Some of these adaptations include changing colors and dyes with the invention of synthetic dyes and changes in fashion, gaining influences from other regions, and more commonly, artistic expression by the individual knitters. Fair Isle color work gained notice and popularity when Prince Edward of England (Edward VIII) was photographed in a Fair Isle sweater while golfing in 1925, Laurenson also mentions and includes a portrait of Prince Edward and his dog in which the prince is wearing a Fair Isle sweater (2014, p.29). Since the 1920s Fair Isle color work has remained in the minds of the public. It is a style found in mass produced clothing, recreated and interpreted by designers, and misnamed by the public. Fair Isle color work includes set patterns that were designed on Fair Isle, but most color work patterns, and mass manufactured clothes do not meet those criteria and thus should not technically be called Fair Isle. This requirement is less strict than the requirement for Harris Tweed to

be made on the Isle of Harris in order to be called such, so it is also easier to get wrong. I know I frequently call stranded color work Fair Isle even when I know it is not, but I still say it because it has become colloquialism.

The traditional Fair Isle swatch that I knitted was a combination of two patterns found in Richard Rutt's *A History of Hand Knitting*. Most of the design is from the same pattern on page 184 except for the bottom middle diamond with the cross. I chose to swap out the original design with one I prefer from the fisherman's jumper on a previous page, 181. The pattern that provided most of the design was originally done in four colors, yellow on black and white on red. So, I used four colors as well and decided where I wanted to have the color changes. While not an exact replica, the swatch exhibits parts of traditional patterns, several reoccurring traditional motifs, crosses, diamonds, and flowers, and an example of the way the people of Fair Isle make color changes on patterns. The chart was created using Adobe Illustrator and includes symbols along with color to serve as a more accessible pattern for those with color deficiencies.

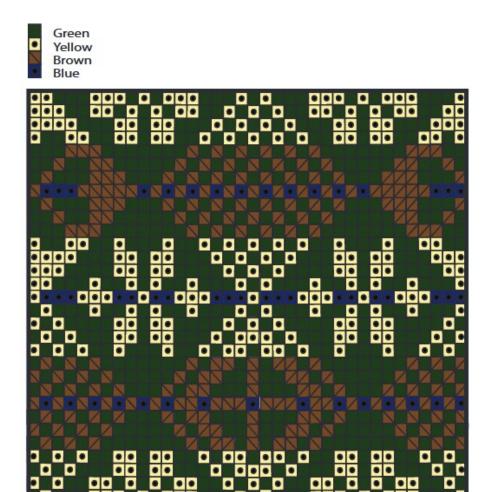


Figure 11: Fair Isle chart read right to left, bottom to top



Figure 12: Fair Isle sample, front view



Figure 13: Fair Isle sample, back view (bottom image)

The second sample that I knitted for Fair Isle is a steeked sleeve. I used wool yarn and size seven needles. The steek was sewn on a sewing machine in white thread.



Figure 14: Steeking sample, outside view



Figure 15: Steeking sample, inside view

Sanquhar

Sanquhar is a town in the Dumfries and Galloway by the river Nith in the southwest of Scotland. The name of the town is pronounced "sank-er." Sanquhar is known for having the oldest working post office in the world (Bush, 2014, p.32) and for its distinctly patterned knitted gloves. The knitting industry in Sanquhar started with knitting and selling stockings in the sixteenth and seventeenth centuries. "Trade disruption from the American War of Independence and the French Revolution reduced its size and may have prompted the knitters to make use of the color patterns" (Cohen, 2020, p.12). The knitting industry again almost stopped during the Napoleonic wars which was when the knitters of Sanquhar started to switch to knitting gloves and many of sixteen traditional motifs are also from that time (Bush, 2014, p.33).

The gloves are knitted in two contrasting colors of thin yarn and knitted in the round on thin double pointed needles. There are sixteen traditional Sanquhar patterns, several like the Duke pattern and the Drum pattern form a grid or a *dambrod*, "Scottish for checkerboard" (Bush, 2014, p.34). Several others, like the Shepard's Plaid and the Midge and Fly pattern, were "inspired by woven tweed fabrics" (Bush, 2014, p.34). A few of the patterns are unnamed, and for most of them the origin is unknown, but they were all passed down from mother to daughter by oral tradition and then taught at the Sanquhar Academy by Mary Forsyth from the 1930s until the 1970s. During World War II children from Glasgow were evacuated to Sanquhar, "Hutchinson's Girls Grammar School was evacuated from Glasgow to Sanquhar and Miss Forsyth taught the Glasgow girls" (Rutt, 1987, p.201). The Duke pattern is one of the patterns with a known backstory, it was named for the Duke of Buccleuch and the Duke of Queensbury who

helped the knitting industry in Sanquhar with their support (Bush, 2014, p.34). The dambrod style of patterning is said to represent the fence the Duke built around his land ("Sanquhar Gloves: living tradition," 2016). The Cornet pattern originated from the Riding of the Marches. "An annual riding and pipe band event in Sanquhar; many of the riders wear the ornate knitted Sanquhar gloves, and the leader, or cornet, always receives a special pair" (Bush, 2014, p.34). The rose pattern was created in the 1930s and is in honor of Queen Elizabeth II's sister Princess Margret Rose (Bush, 2014, p.34).

Besides the distinct patterns on the gloves there are a few other things that set
Sanquhar gloves apart. These include: a color worked rib band around the wrist, a thumb
gusset and finger gussets, triangular decreases at the ends of the fingers, and the inclusion
of the wearer's initials in the cuff. The ribbing around the wrist can have some variation
of pattern but most simply uses one color for the knits and another color for the purls.

Knitters also vary the way the colors are patterned in the fingertips; however, the
structure remains the same. The initials of the wearer and the year the gloves are knitted
are worked into the cuff above the ribbing, the date on one glove and the wearers initials
on the other. Sanquhar pattern gloves are knitted with the same basic pattern and number
of stitches no matter the size, the knitters change the weight of yarn and the size of the
needles in order to adjust size instead of changing the number of stitches, which is typical
of sizing patterns.

While many other items can be made with the Sanquhar patterns, as their geometric repetition lends itself to many crafts and to adaptation, the gloves sold well as they can be personalized with initials and do not take nearly as long as a larger knitted item would take. Because of the initials and the gussets, the gloves cannot be replicated

by machine. They must be knitted by hand which helped to sustain the knitting industry in Sanquhar (Thomas, A., 2018). Along with Gloves the knitters made the aforementioned stockings, socks, scarves, and hats. The most traditional colors for the gloves are black and white. While Bush says that all other color combinations came later (2014, p.33), the Scottish Women's Institute instructor May McCormick said that black and red gloves are just as traditional as black and white (Scottish Women's Institute, 2020, video), and Angharad Thomas and Beth Brown-Reinsel say that the second traditional color combination is brown and yellow ("Sanquhar Gloves: A Living Scottish Tradition", 2016). They all agree though that other colors came into popularity later and vary from knitter to knitter. The important part is that the colors contrast to show the patterns.

While not as big of an industry as it once was, visitors can still purchase Sanquhar gloves in the town and even online. There are also patterns available for sale in the town and online at the Scottish Women's Institute and on Ravelry.com. The Scottish Women's Institute had a five-week knit-a-long in March 2021 over Zoom, specifically to learn how to knit Sanquhar gloves. The recordings are available on YouTube (Scottish Women's Institute, 2020, video). The town still has knitwear and knitting supplies sold in the local arts center. There is also a display of gloves at the Tolbooth Museum in Sanquhar. Thomas states that "in the centre of Sanquhar there is activity related to the production of gloves and other items in the Sanquhar patterns, in the arts center and its shop" (Thomas, A., 2018).

The sample that I made of the Sanquhar gloves is knitted in the Duke pattern. I found the glove pattern available for free on Ravelry.com and chose the pattern that was

based on a study of a glove made in Sanquhar, and is a replication of that pattern. I chose to do the glove in red and black, as it is one of the more traditional color combinations even if it is not the most historic. I actually purchased supplies for this glove twice, as the first set of yarn and needles I purchased were too big. So, I switched from sock yarn to lace yarn and from US size two to US size one needles. The glove is still a bit big on me which means that I have a looser tension than intended since May McCormick said that size two needles make women's gloves. I also put my initials in the cuff. The complicated part was the structure of the glove, not the pattern, since after the first row of the Drum motif I had it memorized and did not need to look at the pattern.





Figure 17: Sanquhar glove sample, back of hand view

<u>Argyle</u>

Argyle knitting comes from the Scottish county of Argyll, the home of the Campbell clan and where the current laird of the Campbell clan is Duke. The pattern Argyle started its life as stockings made from woven "tartan cloth, cut on the bias" (Rutt, 1987, p.127) and worn with kilts of matching tartan. According to Zambello, Clan Campbell's tartan is the first of the tartans to be replicated in knitted stockings (2021, p.46). When knitting skills and knowledge in the area improved the knitters tried to replicate the family tartans in the knitted stockings in hopes to keep with tradition and clan pride while improving the fit of the stockings since knitted stockings have more stretch and better fit than bias cut woven fabric. Tartans can be quite complex, "the squares and stripes easily produced in woven fabric can be quite challenging to reproduce in a knitted stocking" (Zambello, 2021, p.46), so the knitters had to simplify the pattern until they ended up with the classic diamond with crossing diagonal lines that we know today. This allowed the knitters to represent the tartan in the basic structure and the colors used while still making the stockings in a reasonable amount of time. Even though the pattern was a simplified version of tartan and not an exact replica this turned out to be a good thing. Aesthetically, since the stockings were worn with kilts, the stocking coordinating but not matching kept the plaid from being overwhelming, "sometimes more pleasing to the eye if the tartan design was imitated but not copied exactly" (Zambello, 2021, p.46).

The stockings colors would vary based on which clan was making and wearing them. Scottish tartans differentiate families and regions by the different structure of intersecting lines and the colors used in the woven plaid patterns. The colors of the

tartans are inspired by the landscape of the area where the tartan originates. This is partly from the use of natural dyes that come from the land and partly to help represent where the person wearing the tartan is from. The colors of the tartans are especially important, so knitters were careful to use the proper colors when making the Argyle stockings.

While the pattern originated for stockings, it has since been used in other items. Most well-known are the Argyle pattern dress socks and vests for men. Argyle can also be used in sweaters and women's clothing. It is a guarantee that anywhere selling men's dress socks in Scotland will offer a pair of socks with an Argyle pattern. The association of Argyle with men's dress clothes no doubt started with their use paired with Scottish men's traditional kilts, but the association continued in the 1940s and 1950s as "knitting surged in popularity during World War II. As both women and men on the home front in America crafted warm items for soldiers abroad" (Zambello, 2021, p.46). While the socks sent to the soldiers were probably simpler than argyle, hand knitted socks were cheaper in post war America than store bought so American women knitted the more complicated socks for their returned husbands (Zambello, 2021, p.46). Argyle no longer is limited to the colors of the clan tartans but can be made into any colorway that the designer or knitter desires. Designers and knitters have also adapted the size of the diamonds in the pattern making them larger or smaller to coordinate with their designs. Apart from the color and size of diamonds there is not much variation in the Argyle pattern. It always has diamonds and intersecting diagonal lines created through color.

The color work of Argyle knitting is different from Fair Isle's color work as it is not stranded. Argyle is *intarsia*. With intarsia instead of carrying the second color of yarn behind the work when it is not in use, the knitter has bobbins filled with yarn of each

color in use and all are attached on the back of the work. When the knitter goes to use the next color she will twist the previous color yarn around the new color, drop the old yarn and continue with the new color from its "mini ball." Wrapping the yarns around each other at the switching points prevents holes in the fabric. This style of color work must be worked flat and requires numerous mini balls of yarn to be attached to the work, all at the same time. The Argyle stockings would have been knit flat and then seamed into a tube to form the sock shape. Similarly, Argyle vests are knitted with the front and back separate and then sewn together at the sides and shoulders. The stranded Fair Isle sweaters can be knitted in the round and thus only have seams at the shoulder and not at the sides.

The Argyle sample that I knitted has the standard diamonds and intersecting diagonal lines. For the sample I used four distinct colors of yarn allowing for different colors for the alternating diamonds while the lines were consistently the same color. I did not follow a specific tartan for this sample instead I chose to use earth toned colors implicating the traditional use of natural dyes. I used acrylic yarns and as required of

Argyle knitting, the sample was knit flat on straight needles using intarsia style of knitting with multiple colors.



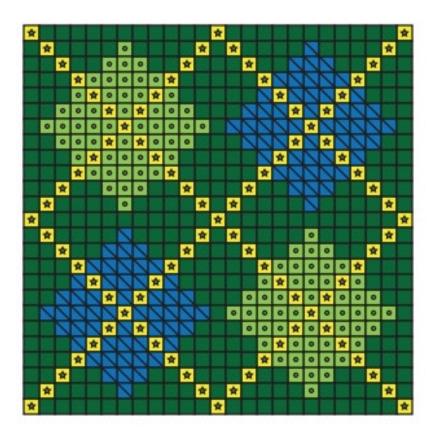


Figure 18: Argyle chart. Read right to left, bottom to top



Figure 19: Argyle sample, front view



Figure 20: Argyle sample, back view

Aran Cables

The Aran Islands are located off the west coast of Ireland and can be seen on a cloudless day from the Cliffs of Moher. One of the things that the Aran Isles are most known for is the Aran sweaters that are made by the people who live there. Aran sweaters are sold across Ireland at the Aran Sweater Market, and they consist mostly of cables. Cables are raised stitches that cross over another stitch or group of stitches to create a pattern. The sweaters are typically knitted in a single color and are primarily white or off white. As Corrigan explains, "Aran is monochrome so the undistracted eye can enjoy the strength of its primordial forms" (2019, p.28). In other words, it is important to show off the cable work and not let it get lost among assorted colors of yarn.

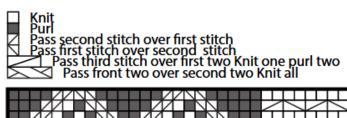
Aran Jumpers are said to have a much longer history than is actually so. Aran cable work is said to have been around for hundreds of years and many folks believe that it served to identify sailors lost at sea by their family's pattern, created through various symbolic motifs. While this makes for good storytelling, it is unfortunately not likely to be true (Rutt, 1987, pp.194-195). Prior to the 1900s the sweaters of the Aran Islands were more like the English fishermen ganseys discussed earlier in this paper. They were simpler in design, with some cables around the yoke at the neck and shoulders instead of all over, and dyed darker colors, particularly blue, to show less wear and dirt (Corrigan, 2019, p.29). White is not a practical color for work clothes. "The sweaters are knitted of a natural white yarn – an impractical color that was astutely avoided by most early folk knitters" (Gibson-Roberts and Robson, 2004, p.259). It is possible that these simpler ganseys did have symbolic patterns that were distinctive to the families who wore them.

Therefore, part of that story may be true but not quite how sweater wearers of today imagine it. It is possible that the Aran sweaters that we think of today, came about from Irish emigrants to America learning techniques from eastern European emigrants, and then returning to Ireland and blending the styles. Both Rutt and Gibson-Roberts and Robson say this is the true story as there are more corresponding records (Rutt, 1987, p.198) (Gibson-Roberts and Robson, 2004, p.259). Knitting is adaptive so the addition of the new knowledge created something novel and even more "Aran." Even if some of the motifs originated in other countries or were simply an original pattern, they can still include Irish symbolism. The motifs may mean whatever it is that the knitter or wearer prefers them to mean.

The Aran sweaters came into a more national focus when a man names Heinz Kiewe found one at a store in Dublin called Country Workers Limited in 1936 (Rutt, 1987, p.194). Kiewe was so intrigued with the sweater that he helped build the cottage industry that the Congested Districts Board had started and helped develop the idea of the fully cabled white sweater that we know today. The Congested Districts Board created the Cottage Industry to help support the incomes of those living in areas too overcrowded to earn enough by farming (Rutt 196). The sweater gained even more notoriety when it was featured in Vogue Knitting. Since then, it has become ubiquitous with cables and with Ireland; and is recognized as such throughout the fashion and knitting worlds.

The traditional cables that I used are all from separate patterns. The cable on the left comes from *A History of Hand Knitting*. It has regular moss stitch (also known as seed stitch) in some of the diamonds formed by the cables. The one in the middle is a honeycomb pattern. It was sized down a bit to match the honeycomb pattern from another

sweater pattern. The cable on the right is from a vintage sweater pattern that is available on the Aran Sweater Market's website in their vintage patterns collection. It is a diamond cable with Irish moss stitch or double moss in the diamonds. I included the diamond and the honeycomb cables because they are quite common in Aran sweaters. I really liked the left cable, it is from a replica of the sweater found by Heinz Kiewe (Rutt, 1987, p.195). All three of these cables have variations in the patterns. For instance, the honeycomb is also found in an eight stitch repeat instead of a four stitch repeat; and Diamonds usually have two stitches on each side of the diamond while this one only has one. To keep with the traditional Aran look and to show off the complicated cable work, I used a single color yarn.



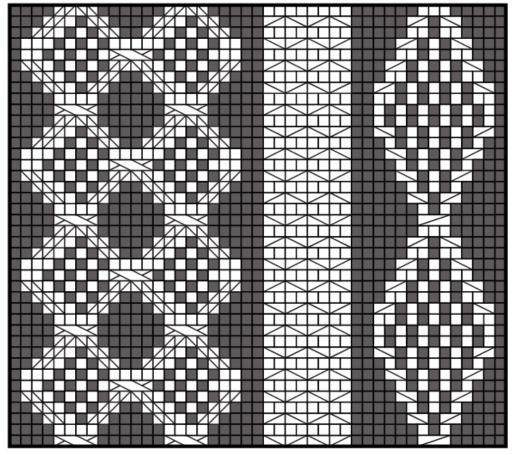


Figure 21: Aran cables chart. Read right to left and bottom to top



Figure 22: Aran cables sample (bottom image)

Part VI: Conclusion

The relationship between knitting and the British Isles has been a long and beneficial one. Knitting provided people a source of income and independence for those who chose to sell knitted items; and in turn the knitters of the British Isles have created many patterns and techniques that have impacted both knitting and fashion. Jersey is now the common name for plain stockinet knit fabric (the kind of fabric of which t-shirts are made), Shetland lace has set a standard in lace knitting, Fair Isle has become a common term used for stranded colorwork, Argyle is a fixture in men's dress clothes, and Aran sweaters are known around the world for their cables. The creation of these knitting styles has evolved with interaction, or lack thereof, with the wider world. In relation to the knitting of the British Isles, the complexity of the knitting is greater in areas that were more secluded historically. The Shetland Islands, including Fair Isle, and the Aran Islands are all off the coast of the main islands of Scotland and Ireland respectively; and although the Aran Islands are much closer than the Shetland Islands, they were all geographically more difficult to access and interact with. The Sanquhar gloves grew in complexity during a time when the town was cut off from most of Scotland. On the other hand, England and Wales have spent centuries intertwined. Both are more consistently inhabited and connected than the islands and highlands of Scotland, and as such both have simpler patterns with fewer colors. The Channel Islands are even more simplified with their preference for stockinet. Their interaction and trade with both England and France caused them to adapt their work to what would sell best in both countries. The more secluded locations lead to greater specialization in designs due to the lack of outside influences. Areas with greater interaction with other areas developed less specialized knitting to facilitate increased trade opportunities.

The use of colors in traditional British knitwear is noteworthy. Unlike the complexity of the patterns, the color does not appear to be based on accessibility of dyes; but instead, color is used more representationally. There are three categories of colors for knitwear in this thesis: working colors, white, and multicolored. Monmouth caps, stockings, ganseys, jerseys, and guernseys are all considered working colors as they were knitted in brown, dark blue, or grey. These garments were specifically knitted in dark colors so as to not show dirt and wear acquired during work. Aran sweaters and Shetland lace on the other hand were not intended for work wear. Both garments are typically knitted in white yarn with the primary focus to show off the knitted patterns. Wearing these garments knitted with complicated patterns and in light colors (that show dirt) also indicated higher socioeconomic status. A secondary reason for the white yarn is also significant. The Irish people are predominantly Catholic, and Catholicism includes a lot of color symbolism. The white yarn traditionally used in the Aran sweaters and Shetland lace is used to represent purity, peace, and innocence. Also, both Aran sweaters and Shetland lace were popular in the Victorian era when propriety and the values represented in the color white were encouraged in clothing and presentation. Lastly, the multicolor knitwear of Fair Isle, Argyle, and Sanguhar use color to reflect the landscape of Scotland. Argyle is based on tartans which are specifically meant to reflect the colors of the landscape and to identify clans. Sanguhar uses two colors in a manner that reflects the drama of the Scottish landscape by focusing on the contrast of the colors instead of the colors themselves. Fair Isle originally used the colors found in the landscape and the

natural dyes found on the island. The islanders' later adoption of synthetic dyes shows that they appreciated the joy of the colors on an island that somedays can be rather bleak. The most intriguing thing about the knitters of the British Isles is that they created beautiful, joyful items despite dreary weather and hardships in their lives and work.

Part VII: Sweater Line

I used the techniques from this research of the knitting styles of the British Isles and adapted them to create a unique collection of six original sweater designs. In my collection, I combined different techniques, or adapted and updated the traditional techniques. to create a line of modern, trendy sweaters for today's consumer. In addition to updated aesthetic designs, the sweater designs also incorporate non-traditional construction elements.

The first sweater design is a top-down sweater with a decorative yoke. This style of sweater is usually used for Fair Isle colorwork, so I played off that idea. I adapted a Fair Isle inspired motif found in Alice Starmore's *The Celtic Collection* by enlarging the motif, centering it around the neckline and across the yoke, and switching the lines of color into lines of lace. The lines on the image of the sweater that are dotted and the dots themselves represent the lace designs. The groupings of dots are similar to the cat's paw design in Shetland lace. The neckline of the sweater is rolled (rows of stockinet that roll up on itself intentionally) creating a more delicate neckline and balancing the lace right next to it. The ribbing at the waist and cuff is a special faux-cable rib that is a three by two rib, where for every fifth row, instead of knitting three, you slip the first stitch, knit one, yarn over, knit one and then pass the slipped stitch over the three stitches.

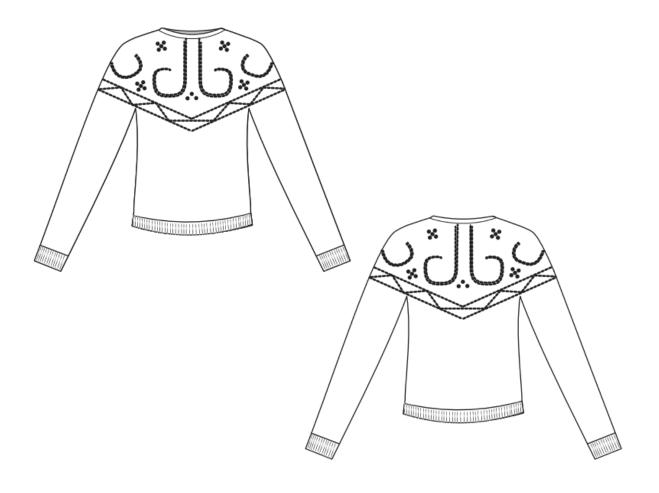


Figure 23: design for Lace Sweater. Left is front view and right is back view

The second sweater in the line is a cardigan. None of the traditional sweaters researched were cardigans, which open in the front. It has a wider neckline with a line of functional buttons as closures along the front opening. The cardigan flares out at the hem, as well as at the ends of the sleeve where the lace pattern is incorporated. The lace in this sweater is the sample pattern I knitted from *My Knitting Book* by Miss Lambert. I designed the sweater for the lace to be used on the bottom edge of the sleeves and the body of a cardigan, instead of as a scarf or shawl. The lace goes up six inches from the

hem and the rest of the sweater body is stockinet up to the neckline. The edge of the neck includes a cabled edge that curves around the opening.



Figure 24: design for Lace Cardigan. Left is front view, right is back view

The third sweater is a short sleeve adaptation of an Argyle sweater. The neckline consists of a V-neck with one by one rib. The bottom edges of the sleeves and the body is the same double brim found in Monmouth caps; and are worked in a contrasting color that is repeated in the line of colored diamonds down the center front. The lines crossing the diamonds have been changed to lines of lace similar to the saltire pattern in Shetland lace, and they continue all around the body of the sweater. The sleeves have a line of eyelets above the hem. This sweater would need to be knitted from the bottom up in four

pieces: front, back, and sleeves. This is because the hems must be knitted first and because the inclusion of Argyle requires the piece to be knit flat to accommodate the intarsia.

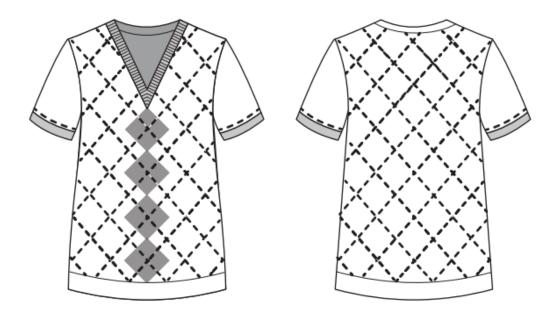


Figure 25: design for Argyle Sweater. Left is front view; right is back view.

The fourth design is a Sanquhar style sweater. The cuffs, waistband, and collar are all knit in two-by-two colored rib, like the Sanquhar gloves have. Included above the waistband are the initials of the wearer and a stripe of alternating-colored stitches, to include the tradition used in the gloves above the cuff. The main pattern is the Duke pattern, using alternating rows of the standard nine stitch pattern as an enlarged twenty stitch version. This sweater is knitted in two colors; the black and white in the image are

representative of the two colors, and the grey is representative of places where both colors are used alternating every stitch.



Figure 26: design for Sanquhar Sweater. Left is front view; right is back view.

The fifth sweater design is a combination of colorwork and cables in a top down sweater. The cuffs and waistband are similar to the Monmouth caps brim, but upside down. The knitter would knit the waist band and cuffs twice the length, with a row of purls at the halfway point; and then after binding off, they would sew the bind off edge to the inside of the sweater. The leaf and vine design is done in a contrasting color and the vines are created using cables.

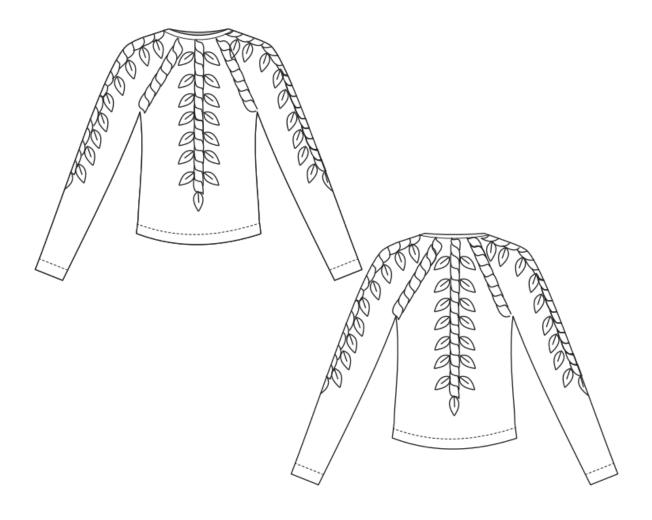


Figure 27: design for Leaf Sweater. Left is front view, right is back view

The final design is a V-neck sweater with color worked cabled diamonds. The cables are one color, the moss stitch in the diamonds is another, and the main body of the sweater is a third color. There are two rows of diamonds, five on each side. The center front diamond on the top row has been eliminated in order to create the neckline, which mimics the lines on the diamonds. The waistband and cuffs are two-by-two rib knit, and under the sleeves there are gussets as in traditional ganseys. The distribution of the pattern contained to the chest area is similar to the Scarborough patterns (Around and

about Yorkshire, 2014, video). The cuffs have two rows of the same yarn used for the cables in stripes. This is the sweater that I knitted for this creative project.

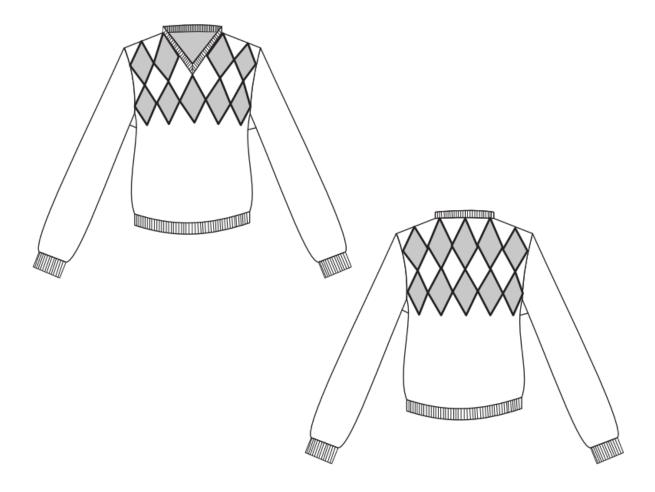


Figure 28: design for Diamond Sweater. Left is front view; right is back view.

Part VIII: The Diamond Sweater

I used brown wool for most of this sweater (yarn A), oatmeal-colored wool for the cables (yarn B), and green wool /acrylic blend for the moss stitch in the diamonds (yarn C). The sleeves and unpatterned part of the body were knitted in the round on size 9 circular and double point needles. After a few test swatches to determine the best color combination and knitting technique to use, I ended up knitting the diamonds flat by leaving one arm open, and the other with a few extra stitches so I could steek it. (Steeking is knitting extra stitches in the arm hole in order to knit in the round and then cutting open the armhole between the extra stitches and picking up stitches along the opening to knit the sleeve.)

In determining the design and construction of this sweater, I made three samples. The first sample was brown, white, and green, using stranded colorwork. I liked the shape and size of the diamond but the stranded colorwork made the sample too thick. The white was carried behind the green, and in an actual sweater it would have been necessary to carry the brown yarns as well, which made the diamonds too thick to be practical. Also, I felt like the use of the white with the brown and green looked too much like a varsity sweater. So, in sample two I switched out the green for the oatmeal and knitted the sample using intarsia. I also shortened the diamond. However, that made the diamond too wide, and blunted the corners, so that design idea was eliminated. The intarsia method created a much thinner sample and proved to be the better option for the final project, even though it would be more difficult and time consuming to create. The intarsia did have one issue in that the moss stitch was too loose and puckered because it did not have the support of the stranded yarn behind it. To avoid this puckering, it was necessary to

take care with keeping my tension tighter when knitting the moss stitch sections. As for the colors, I liked the contrast among the three natural colors, but having a lighter color inside the diamond allowed the stitches that were moved behind the cables to appear on the other side. In the first sample with green in the center, the odd stitches do not stand out due to the closeness of value between the green and brown. So, for sample three I returned the green to the center and switched the white yarn out for the oatmeal, which turned out to be the best color combination. I knit the intarsia again in sample three focusing on using tighter tension and it fixed the puckering problem. In sample three the diamond was too big. So, in summary I decided on the size of sample one, the technique of sample two, and the colors of sample three.



Figure 29: Diamond sample one, front view



Figure 30: Diamond sample one, back view



Figure 31: Diamond sample two, front view



Figure 32: Diamond sample two, back view



Figure 33: Diamond sample three

Once I had the pattern for the diamonds figured out, I used that pattern to calculate how many stitches to cast on. Based on the method of calculating the consistent starting number of stitches, the way to change the size of the sweater is to either change the gauge using different size needles and a different weight of yarn, or to change the size of the diamond. Bigger diamonds would cause the sweater to be wider and longer, and smaller diamonds would make the sweater narrower and shorter.

If I were to make this sweater again, I would use smaller diamonds so the whole garment is a bit smaller. I would also not steek the one arm. The sweater can very easily be knit with the front and back separate from the beginning of the armhole up. I would just work the front and then the back. This would be much easier as there would be fewer balls of yarn attached to the sweater to facilitate knitting in the intarsia style. The first row of diamonds had forty-one little balls of yarn all connected to the sweater at one time--ten green, twenty oatmeal, and eleven brown. I used a more complicated method to



Figure 34: Diamond Sweater, front view



Figure 35: Diamond Sweater, back view

This project has explored the foundations of a few of the most significant techniques in knitting and a few of the lesser known but still important techniques that have helped shape the history of the British Isles and knitting. Along with learning about the history, I learned how to execute the different knitting styles. This project gave me the opportunity to learn techniques that I had never done before either because I had not had the time yet or had never heard of the style before. The sweater line gave me the opportunity to design with knits and think about the designs on a textile level instead of just on a garment level. The sweater line also gave me the perfect chance to learn how to write a sweater pattern and even how to figure the math for a sweater pattern. I have established that there is a lot I still must learn about gauge and assorted styles of sweaters.

Appendix

Diamond Sweater Pattern

Difficulty level: Advanced

Materials:

Worsted weight wool yarn in three colors- Yarn A (Brown) four skeins, (maybe

purchase a fifth skein to be safe), Yarn B (Oatmeal) One skein, Yarn C (Green)

Two skeins

Circular needles size nine

Double point needles size nine

A cable needle

A tapestry needle

Cardboard bobbins

Instructions:

Body of Sweater:

Loosely cast on 220 sts in A. Join ends carefully to avoid twisting the stitches, place

stitch marker to mark the start of the row.

Knit 2, Purl 2, then repeat across the row. Repeat rib row for thirteen more rows for a

total of 14 rows

After the waistband knit all stitches in each row for 8-10 inches, this forms the body of

the sweater.

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Sleeve Gussets (In yarn A):

K 110 sts, place marker, knit to end. You now have two stitch markers on opposing sides.

Row 1: * K1, M1, K1, M1, K to next marker, repeat from *. M1 means make one by picking up and knitting the carried yarn between the two stitches in the previous row.

Row 2: K all (3 sts in gusset)

Row 3: *K1, M1, K3, M1, K to next marker, repeat from *

Row 4: K all (5 sts in gusset)

Row 5: *K1, M1, K5, M1, K to next marker, repeat from *

Row 6: K all (7 sts in gusset)

Row 7: *K1, M1, K7, M1, K to next marker, repeat from *

Row 8: K all (9 sts in gusset)

Row 9: *K1, M1, K9, M1, K to next marker, repeat from *

Row 10: K all (11 sts in gusset)

Row 11: *K1, M1, K11, M1, K to next marker, repeat from *

Row 12: K all (13 sts in gusset)

Row 13: *K1, M1, K13, M1, K to next marker, repeat from *

Row 14: K all (15 sts in gusset)

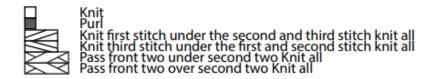
Separating the Sleeves:

Place first gusset on spare yarn and turn needles, purl back to the second gusset, place sts on spare yarn, cast on 5 sts, continue purling until the end of the row. Turn needles and knit one row, M1 after first and before last sts.

Color work:

Wind ten small balls of C, twenty small balls of B, and eleven small balls of A. Wind them onto cardboard bobbins. The bobbins for B will be about golf ball sized when full and the bobbins for A and C will be about the size of a baseball.

Start color work on the purl side. So that cables are on the knit side. The chart repeats ten times. Inside the red is the repeat. The main color will be A. On this row you start the cables which are B, and in a few rows, you add in A which is the diamonds.



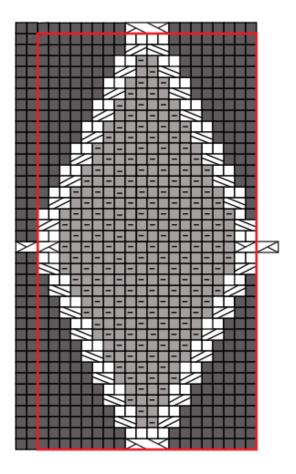


Figure 36: Diamond chart. Read right to left, bottom to top, red outlines repeat.

When the first row of diamonds is complete, start the v- neck at center front on a knit row.

Knit from the opening in the side to the first two stitches of the middle diamond on the front, K2TOG. Cut that yarn and knit green for the center diamond. Turn, purl back

following the chart. Continue chart for the two diamonds, decreasing by knitting the last two sts together on each knit row. At the end of those two diamonds place sts on waste yarn. Continue the rest of the row of diamonds decreasing by an SSK at the end of the knit rows to form the other half of neckline.

At end of chart, place sts on waste yarn. Steek the closed arm hole by sewing four rows of stitching on a sewing machine and then cut the sts between the center two rows of stitching. Then use the Kitchener stitch to sew up the shoulder seams, leaving the sts on the back of the neck on the waste yarn.

Sleeves:

Put the stitches from the gusset on the needle you are using. For the first bit, a circular needle may work, switch to DPNs then pickup \sim 62 sts in the front and \sim 58 sts in the back.

Once you are back to the gusset move the last picked up stitch to left needle and SSK.

Knit to the second to last st. K2TOG for the last gusset st and the first picked up st. Knit around. With the gusset marking the beginning of each row. Work the gusset the same – *SSK, knit until last st, K2TOG*. Knit the rest of the sts for these rows. Gusset has three remaining sts slip one K2TOG and pass slipped stitch over. This stitch is now a back stitch. Adjust your stitch marker accordingly. At this point you decrease the sleeve.

Alternating plain knit rows and decrease row, the first stitch is K2TOG, and the last stitch is SSK through all decreases. Decreases are on the underside of the arm. The side with the K2TOG any decreases are K2TOG and on the SSK side they are SSKs. The first

decrease is 8 sts on either side of the center decreases, then 7 sts, then 6 sts, 5 sts, 4 sts, 3 sts, and then 2 sts. Then decreases are 4 sts away from the center decreases, then 3 sts, then 2 sts. Stop the additional decreases and continue center decreases for three rows. Stop decreasing when there are <u>76 sts</u>. Divide between needles evenly and knit all for 35 rows, 7 inches, then decreases start again.

Final decreases:

Row 1: *K10, K2TOG, K to end of the needle and repeat from*

Row 2: Knit all

Row 3: *K9, K2TOG, K to end of the needle and repeat from*

Row 4: Knit all

Row 5: *K8, K2TOG, K to end of the needle and repeat from*

Row 6: Knit all

Row 7: *K7, K2TOG, K to end of the needle and repeat from*

Row 8: Knit all

Row 9: *K6, K2TOG, K to end of the needle and repeat from*

Row 10: Knit all

Row 11: *K1, K2TOG, K 7, K2TOG, K6, K to end of needle. Repeat on other needles.

(14sts on each needle)

Row 12: K1, K2TOG, K6, K2TOG, K5

Row 131: K1, K2TOG, K5, K2TOG, K4

Row 14: K1, K2TOG, K4, K2TOG, K3 (32sts in all)

Cuff:

Knit 10 rows in A of 2x2 rib (K2, P2)

1 row in B

2 rows in A

1 row in B

2 rows in A

Then cast off loosely in A.

Knit other sleeve the same.

Collar:

Place stitches from the top edge of the back of the sweater from waste yarn to two of your double pointed needles. In A, pick up 23 sts on one side of the front of the neckline and 22sts on the other. You are back to the start of the sts from the waste yarn, this is the beginning of the row.

Knit one row of one by one rib all the way around.

Knit another row of one by one rib, but at the point of the v, slip one, K2TOG, PSSO

Join yarn B, with B knit one row of one by one rib, at the point purl three together, break yarn B.

With A, Knit another row of rib, with a slip one, K2TOG, PSSO at the point.

Bind off loosely in A.

Weave in ends of yarn and block.

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