Skelmanthorpe and District U3A

A HISTORY OF THE TEXTILE INDUSTRY IN THE LOCALITY

MARCH 2018

CONTENTS

1. From Wool to Cloth

How Cloth is Made

Shearing
Once a year, usually during the warmer weather, sheep are gathered for shearing. Shearing is when the animal's fleece is cut off; this does not hurt it in any way. Variations of between 6 and 18 pounds (2.7 and 8.1 kilograms) in the weight of fleeces have been recorded.

Grading
The raw wool is then graded according to the quality of the fibres, which varies according to where on the animal the wool has come from. Fleeces of the same grade are compressed and packed into bundles for the next stage.

Scouring
Before yarn can be spun, the raw wool has to be scoured to remove dirt, grease and sweat. In Victorian times urine was often used for this as the ammonia contained in it breaks down the grease in the wool. Fleeces are still scoured today and this involves three processes, washing, rinsing and drying. The washing is done in a series of alkaline baths and then the fleece is rinsed and squeezed through rollers to dry it. Lanolin, a kind of grease, is the by-product of this process and it is purified for use in the manufacture of cosmetics, soap and other household products.

The clean wool now needs to be further processed before being spun into woollen or worsted yarn. Woollen yarn is more bulky, hairy and irregular than worsted yarn and today is used for items such as carpets or knitwear. Worsted yarn is more tightly spun, smoother looking than woollen yarn and stronger and an example of its modern use is the manufacture of cloth to make suits.

Carding
The fleece now needs to be carded before it can be spun into yarn. Modern carding machines consist of rotating cylinders set with wire 'teeth', which tease the wool out into individual fibres and get rid of any remaining bits of straw or other matter not removed by scouring. The predecessor of the carding – or 'scribbling' – machine was two hand-held boards studded with bent iron pins. Once carding is complete the fibres are ready for spinning, unless they are destined to be woven into worsted cloth in which case another process, called combing, is necessary.

Combing
Combing takes out the shorter fibres, also called noils, and lines the longer fibres up parallel with one another in a 'sliver'. This is then wound into a ball, called a 'top', which is ready for spinning.

Spinning
The craft of spinning is thousands of years old. During the spinning process the fibres are twisted into a long, continuous thread, or yarn. This used to be done with 'spindle whorls'. As you were twisting the fibres, the whorl would hang from the bottom of the thread and spin the yarn as it rotated. The invention of the spinning wheel greatly increased the speed at which yarn could be spun. Today, spinning can be done on a variety of machines, depending on whether the yarn is destined to become woollen or worsted cloth.

Weaving
The basic principles of weaving have not changed, although the machinery used to complete the process has. Two sets of threads are used in weaving. One, the warp, is put onto the loom in parallel lines and the other, the ‘weft’, is taken between the warp threads. Patterns and textures are created by using different coloured yarns and by varying the number of warp threads gone over and under. Initially a shuttle was used to weave the weft threads but as technology has developed other methods have been introduced.

In hand loom weaving the layers would build up slowly and be 'beaten down' to make the fabric. Modern machinery can do this job faster and can make wider pieces of fabric than was previously possible.

Fulling
Fulling the cloth, to clean it and make it thicker, was originally done entirely manually, with the fuller trampling the cloth in a tub of warm, soapy water. Fulling can reduce the size of a piece of cloth by up to a third. Then fulling mills were developed in areas where there were fast flowing streams to power them. The cloth was then treated by being beaten with large hammers called ‘stocks’. If bracken grew in the vicinity of the fulling mill it would be gathered and burnt to produce potash, which was then used to make soap for the fulling process.

Stretching
Fulling mills always had tenter grounds nearby. Tenters were rows of frames to which the fulled cloth was attached by tenterhooks after rinsing, to stretch and dry it. This is where the phrase to be 'on tenterhooks', meaning to be tense', originates.

Finishing
During the nineteenth century the 'nap', or finish, of the cloth was created by using teazles or cropping shears. Nowadays there are many mechanised ways in which a great variety of finishes can be created.
(Learning article provided by: Huddersfield Local Studies Library)

2. The Woollen Industry

The Woollen Industry was established in the Middle Ages using home-grown wool. Production was based on the domestic system and Leeds in Yorkshire became the market centre where the cloth was exchanged and finished. The output of broadcloth in the area rose from 30,000 pieces in the late 1720s to 60,000 pieces in the 1740s. Leeds now covered 60 acres and by 1770 the town had a population of 16,000. Thirty years later, this figure had doubled.

After the invention of the Spinning Jenny some cloth merchants became factory owners. Several were opened in the Leeds area but by 1803 only one piece of cloth in sixteen was being woven in a factory. Power-loom weaving was introduced in the 1820s. Entrepreneurs in Yorkshire were more likely to employ steam power than other areas. The Woollen Industry declined rapidly in Devon, Somerset, Wiltshire, and Gloucestershire. By 1860s steam power was more important than water in the West Country but in Scotland only 65% of the power was still obtained from water.

The Domestic System

In the 18th Century the production of textiles was the most important industry in Britain. As A. L. Morton, the author of *A People's History of England* (1938) has pointed out:

> *"Though employing far fewer people than agriculture, the clothing industry became the decisive feature of English economic life, what which marked it off sharply from that of most other European countries and determined the direction and speed of its development."*

During this period most of the cloth was produced in the family home and therefore its manufacture became known as the “domestic system”.

There were three main stages to making cloth. Carding was usually done by children. This involved using a hand-card that removed and untangled the short fibres from the mass. Hand cards were essentially wooden blocks fitted with handles and covered with short metal spikes. The spikes were angled and set in leather. The fibres were worked between the spikes and, by reversing the cards, scrapped off in rolls (cardings) about 12 inches long and just under an inch thick.

The mother turned these cardings into a continuous thread (yarn). The distaff, a stick about 3 ft long, was held under the left arm, and the fibres of wool drawn from it were twisted spirally by the forefinger and thumb of the right hand. As the thread was spun, it was wound on the spindle. The spinning wheel was invented in Nuremberg in the 1530s. It consisted of a revolving wheel operated by treadle and a driving spindle.

Finally, the father used a handloom to weave the yarn into cloth. The handloom was brought to England by the Romans. The process consisted of interlacing one set of threads of yarn (the warp) with another (the weft). The warp threads are stretched lengthwise in the weaving loom. The weft, the cross-threads, are woven into the warp to make the cloth.

Daniel Defoe, the author of *A Tour Through the Whole Island of Great Britain* (1724)

> *"Among the manufacturers' houses are likewise scattered an infinite number of cottages or small dwellings, in which dwell the workmen which are employed, the women and children of whom, are always busy carding, spinning, etc. so that no hands being unemployed all can gain their bread, even from the youngest to the ancient; anyone above four years old works."*

The woven cloth was sold to merchants called clothiers who visited the village with their trains of pack-horses. These men became the first capitalists. To increase production they sometimes sold raw wool to the spinners. They also sold yarn to weavers who were unable to get enough from family members. Some of the cloth was made into clothes for people living in this country. However, a large amount of cloth was exported to Europe.

The production and export of cloth continued to grow. In order to protect the woollen cloth industry the import of cotton goods was banned in 1700. In the time of Charles II the export of woollen cloth was estimated to be valued at £1 million. By the beginning of the 18th century it was almost £3 million and by 1760 it was £4 million. William Pyne, *Worsted Winder* (1805)

George Walker pointed out:

> *"The manufacture of cloth affords employment to the major part of the lower class of people in the north-west districts of the West Riding of Yorkshire. These cloth-makers reside almost entirely in the villages, and bring their cloth on market-days for sale in the great halls erected for that purpose at Leeds and Huddersfield."*

Samuel Bamford described the domestic system:

> *"The farming was generally done by the husband and other males of the family, whilst the wife and daughters attended the churning, cheese-making, and household work; and when that was finished, they busied themselves with carding and spinning wool or cotton, as well as forming it into warps for the looms. The husbands and sons would next, at times when farm labour did not call them, size the warp, dry it, and beam it in the loom. A farmer would generally have three or four looms in the house, and then - what with the farming, the housework, the carding, spinning and weaving - there was ample employment for the family."*

According to William Radcliffe the standard of living of people improved during this period:

> *"In the year 1770... the father of the family would earn from eight to ten shillings at his loom, and his sons... along side of him, six to eight shillings per week... it required six to eight hands to prepare and spin yarn for each weaver... every person from the age of seven to eighty years (who retained their sight and could move their hands) could earn... one to three shillings per week".*

As one observer pointed out:

> *"Their little cottages seemed happy and contented... it was seldom that a weaver appealed to the parish for relief."*

In 1733 John Kay devised the Flying Shuttle. By pulling a string, the shuttle was rapidly sent from one side of the loom to the other. This invention not only doubled the speed of cloth production, but also enabled large looms to be operated by one person. When Kay showed his invention to the local weavers it received a mixed reception. Some saw it as a way to increase their output. Other weavers were very angry as they feared that it would put them out of work.

By the 1760s, weavers all over Britain were using the Flying Shuttle. However, the increased speed of weaving meant there was now a shortage of yarn. James Hargreaves, a weaver from Blackburn, invented the Spinning-jenny in 1764. By turning a single wheel, the operator could now spin eight threads at once. Later, improvements were made that enabled this number to be increased to eighty. By the end of the 1780s there were an estimated 20,000 of these machines being used in Britain.

As A. L. Morton has pointed out:

> *"Once the production of cloth was carried out on a large scale for the export market the small independent weaver fell inevitably under the control of the merchant who alone had the resources and the knowledge to tap the market... The clothier, as the wool capitalist came to be called, began by selling yarn to the weavers and buying back the cloth from them. Soon the clothiers had every process under control. They*

bought raw wool, gave it out to the spinners, mostly women and children working in their cottages, collected it again, handed it on to the weavers, the dyers, the fullers and the shearmen."

By John Simkin (john@spartacus-educational.com) © September 1997 (updated December 2016).

3. TEXTILES LOCAL TIMELINE

Date	Event	Details	Reference	Notes
1647/ 1654	Indications of handloom weaving in Skelmanthorpe	George Copley fined for weaving without completing apprenticeship. Thomas Oxley fined for spoiling town well by washing wool.	"A Handloom Weaver and his Loom are Difficult to Part", Leslie Robinson.	
1770s	Fancy handloom weaving started	Kirkburton and Shelley	"Handloom Fancy Weavers", Alan Brooke, 1993 "A Handloom Weaver and his Loom are Difficult to Part", Leslie Robinson.	One reason for this is that our area had easy access to a wide range of yarns: wool locally; linen from Barnsley; cotton via Colne and Holme valleys; worsted made in Cumberworth and silk from Derbyshire.
1800	Joseph Field and his sons opened Fancy Manufacture at Junction House, Skelmanthorpe.	This became Joseph Fields and Sons, Garrett Buildings in 1822.	"Denby & District III", Chris Heath, 2006	
1801	Norton started mill in Clayton West	By 1827 gave work to 638 handloom weavers from Stocksmoor to Kirkburton	"Handloom Fancy Weavers", Alan Brooke, 1993	
1820	William Marsden opened Greenside Mill		"Denby & District III", Chris Heath, 2006	
1822	102 fancy manufacturers attending Huddersfield market	Skelmanthorpe 8 Cumberworth 4 Farnley Tyas 4 Clayton West 2 Kirkburton 2	Baines Directory 1822	
1824	West Riding Fancy Union formed at Kirkburton	5000 members. Strike against Norton for using 40 inch yard successful.		
1826	Bank collapse	Manufacturers collapsed including in Skelmanthorpe and Denby Dale. Norton cut wages by third and paid in poor provisions.		

1830s	R. Beanland and Company gradually developed Spring Grove Mills in Clayton West.			
1834	Greenside Mill developed into production unit under Richard Field who owned it from 1862.		"Denby & District III", Chris Heath, 2006	
1840	Thomas Field opened Elm Mill		"Denby & District III", Chris Heath, 2006	No actual weaving done on premises used out -workers weaving in their own homes.
1842	Garrett site rebuilt and modernised.	After bankruptcy of original business taken over and reopened by grandson Joseph Field.	"Denby & District III", Chris Heath, 2006	
1850s		Field at Greenside brought in new line of shawls. Weaving of stays became main product for Kirkburton, Shelley and Shepley. Dan Brooks who by 1876 employed three quarters of handloom weavers in district.	"Handloom Fancy Weavers", Alan Brooke, 1993	
1860	American Civil War	Brought slump, particularly in Skelmanthorpe.		
1862	Edwin Field started Tentercroft Mills which had been a dye-house.		"Denby & District III", Chris Heath, 2006	
1872	Field and Bottrill created at Greenside Mills.		"Denby & District III", Chris Heath, 2006	
1889	McKinley US tariff on wool and silk imports	Fancy trade collapsed. Weaving turned to raised pile fabric which became main product of Skelmanthorpe and Scissett.	"A Handloom Weaver and his Loom are Difficult to Part", Leslie Robinson.	
1900s	Handloom weaving still		[Tom Wainwright's recollections]	

	going. All three Field family owned mills - Tentercroft, Greenside and Elm Mills continued to support out workers using the putting out system.		quoted in A CATALOGUE OF THE TEXTILE MILLS AND FACTORIES OF THE HUDDERSFIELD AREA C.1790-1914, Alan Brooke, 2015	
1930s	Depression hit Field family heavily and they brought handloom weaving to an end.	Stopped employing them; stopped "putting out"; banned independent weavers working for them and banned weaving in houses they rented.	"A Handloom Weaver and his Loom are Difficult to Part", Leslie Robinson.	
1971	Charles Radley last weave.		"A Handloom Weaver and his Loom are Difficult to Part", Leslie Robinson, (Denby Dale Parish Council)	
1970s	Skelmanthorpe Textile Heritage Centre opened			
1986	Tentercrofts closed down.		"Denby & District III", Chris Heath, 2006	
2005	Hepworth Rugs closed down.	Had been using part of Tentercroft Mill. End of power loom production in Skelmanthorpe.		

4. HAND-LOOM WEAVING

History of the Handloom

The handloom was devised about 2,000 years ago and was brought to England by the Romans. The process consisted of interlacing one set of threads of yarn (the warp) with another (the weft). The warp threads are stretched lengthwise in the weaving loom. The weft, the cross-threads, are woven into the warp to make the cloth.

According to Richard Guest:

> *"The warp was placed between two beams about five feet apart; half way between the beams the warp passed through a frame work of looped threads, called healds, each alternative thread of the warp going through one heald, and the other threads through the other heald. The healds were worked by two treadles, which upon one being put down by the foot, raised one half of the healds and every second thread of the warp; the shuttle which contained the weft was then thrown by the right hand between the threads which were at rest, and the second or alternative threads raised by the treadle and the healds; the shuttle was caught on the other side by the left hand, and the weft thus transversely shot between the threads of the warp.''*

Weaving remained unchanged for hundreds of years until John Kay devised the “flying shuttle”, which enabled a weaver to knock the shuttle across the loom and back again using one hand only. The speed of weaving was doubled; and a single weaver could make cloths of any width, whereas previously two men had sat together at a loom to make broad cloth. By 1800 it was estimated that there were 250,000 handlooms in Britain. By John Simkin (john@spartacus-educational.com) © September 1997 (updated December 2016).

1647/1654 Indications of handloom weaving operating in Skelmanthorpe. ("A Handloom Weaver and his Loom are Difficult to Part", Leslie Robinson.) and in the 1770s Fancy handloom weaving started in Kirkburton and Shelley.

> *"One of the latest novelties amongst the aristocracy at this time was the fashion of wearing fancy waistcoats. This fashion started a tremendous boom period for handloom weaving and fancy waistcoat manufacturers"*
> (http://www.genuki/big/eng/YKS/WRY/Emley/ScissettHistory)

In the very early days, towards the end of the 18th Century, this "fancy" was no more than a bright spot or combination of spots in silk or coloured cotton - well within the scope of an experienced weaver. The intricacy of any textile pattern depends on the number of different working ends and the combination of that number which can be usefully employed. In a simple handloom, twelve such working ends is a good number - more than that invites complications. By the early 19th Century a device known as a "witch" came into use - possibly invented in this area. Fixed onto the loom and working on the same principle as the pinned cylinder of a music box, the witch allowed an increase of up to 36 working ends. This was superseded about 1820 with an "engine" - again fixed onto the loom, but capable of working 160 working ends. Each of these improvements opened up new areas of design to the handloom weaver and manufacturer. With the "witch" simple spots became flowers and with the "engine" the flowers grew to full foliage, animals and intricate tracery. Men were now employed solely to design work for the weavers while better qualities of yarn and silk were called for to further extend the work.
(http://www.genuki/big/eng/YKS/WRY/Emley/ScissettHistory)

By the mid-1820s a new machine was being discussed in the district - the Jacquard - a French invention which, because of the Napoleonic wars had been late in making its appearance in England. This machine still fitted onto the handloom, worked from punched cards and was capable of over 300 different working ends. The Jacquard was exhibited in George Hotel, Huddersfield in 1830. It was now possible to weave almost anything.

The earlier Witch (possibly invented in this area) and then Jacquard allowed handloom weavers in the area to continue to compete with power looms in mills especially for shawls and plush fabric and patterns became more complex.

In the 1840s several Skelmanthorpe cottages had roofs raised to accommodate Jacquard, e.g. Radcliffe Street. ("A Handloom Weaver and his Loom are Difficult to Part", Leslie Robinson.)

By the 1880s Handloom weaving was dying out. Skelmanthorpe was the last stronghold. The introduction by President McKinley of a new tariff on wool and silk imports into the USA and the improvement in printing of patterns caused the Fancy Trade to collapse almost overnight in 1895. Weavers and manufacturers turned to weaving pile fabric with Scissett and Skelmanthorpe becoming recognised as a centre for this branch of the industry which was still difficult for power looms to produce.

1914-1919 Still many handlooms in Skelmanthorpe. See list of weavers and site of their looms - P.25ff "A Handloom Weaver and his Loom are Difficult to Part", Leslie Robinson. However, now mostly weaving plush table covers, sideboard runners, mantel-shelf drapes, oil lamp mats, curtains, chair covers, stair carpets and rugs - all bespoke weaving. Welsh shirting also made a comeback also being used for "fettling aprons".

By 1945 some handloom weavers are still going strong. Independent handloom weavers in the 1940s turned to weaving hearth rugs. Charles Radley, Clarence Turton, Irvin Turton, Walter Lockwood and Donald Robinson. ("A Handloom Weaver and his Loom are Difficult to Part", Leslie Robinson, (Denby Dale Parish Council)

The Huddersfield Examiner ran an article in 1949 on Skelmanthorpe's handloom weaving tradition concentrating on Lockwood and Radley at Croft Head.

"This area was one of the last where handloom weaving was practised, right up to the First World War and in odd pockets even later than that. There were people in Skelmanthorpe still hand-weaving up to the 1930s as an occupation and (some of them) carried on after World War Two just as a sideline. Apart from the Western Isles of Scotland our area is unique because hand weaving went on for so long."

Long after most of the textile industry had moved into the mills some weaving was still carried out by weavers in their own homes. Alan explains:

"In Skelmanthorpe right up to the First World War it was still the main occupation for many people. They were often employed by large firms as outworkers very much as previous generations had been. And the area was famous for the quality of its cloth production - fancy cloths which were beautifully designed and often incorporated different material like silk and worsted.",

Alan Brooke, Clipped on 4-October-2017, from BBC - Bradford and West Yorkshire - Memoryshare - "A forest of chimneys!"

In 1971 Charles Radley made his last weave. ("A Handloom Weaver and his Loom are Difficult to Part", Leslie Robinson, (Denby Dale Parish Council)

In the 1970s Skelmanthorpe Textile Heritage Centre opened.

"This small textile heritage centre comprises a "one-up-one down" former weaver's cottage. The downstairs family living-quarters have been maintained & furnished as a West Riding weaver's family home as it would have been around 1900. Upstairs is an authentic hand-loom in working condition, along with fascinating displays & artifacts linked to Skelmanthorpe's textile history."

https://fosthc.wixsite.com/skeltexheritage

5. SKELMANTHORPE MILLS

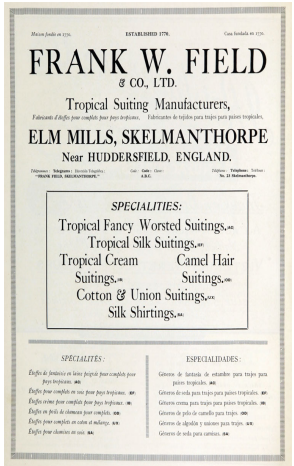
Garrett Mill Cumberworth Road/Huddersfield Road
Started by Joseph Field at Junction House in 1800.
This became Joseph Fields and Sons, Garrett Buildings in 1822. Developed the site from large house into warehouse, loom-shop, dye-house and cloth finishing department.
The business failed in 1826 and the owners were declared bankrupt.

Soon afterwards, however, in 1828, John Field's sons, Joseph, William and Thomas Field, who had become skilled in the trade, were able to set themselves up in business, reoccupying the family works and paying off some of their predecessors' debts. The brothers' partnership continued until 1840 when Thomas bought Elm House, which he developed into mills, and William moved to Brighouse, leaving Joseph to continue at the Garrett, whilst another brother, Richard, joined the business. This Joseph Field rebuilt and modernised the Garrett works in 1842, and in 1844 brought his own sons, William, Albert and John into the business which was now known as "Joseph Field & Sons".

They produced patterned cloths made of wool, silk and cotton. Joseph died in 1868, but his sons continued until Albert's emigration to Australia for health reasons in 1872. The company now became known as "Messrs W. Field and J. Field– fancy cloth manufacturers, established 1873". Once again the business failed and closed in 1885.
1886 13 Feb: "three storey mill with engine plus several lots of land to be sold."
"Huddersfield Examiner" 1886 Plans agreed to convert mill to cottages by Skelmanthorpe Local Board. Friday 09 April 1886 "Huddersfield Chronicle"

Pattern book from 1841-1845 survives including Dobby and Jacquard designs using wool, silk and cotton wefts on a plainer warp.

Elm Mill Gib Lane
1840 Thomas Field opened Elm Mill, converting buildings into dye-house and warehouse.
It was taken over by son Humphrey after father's death in 1845.
Elm Mills had first power looms in Skelmanthorpe 1880. Using mohair and alpaca yarns weaving of tropical suiting and blazers became mainstay of Elm Mills under Frank Field in late 1880s.
1900s still employed on and off-site handloom weavers. Edwin Field of Tentercroft Mill [q.v.] rented top two floors of three storey building at Elm Mill housing handlooms.
Eight were made in 1911, the other 12 were older. Plush weaving of rugs, table covers, curtains and mantle borders.
1912 Frank W. Field and Company making tropical silk suitings then blazers.


ESTABLISHED 1778.

FRANK W. FIELD
& CO., LTD.

Tropical Suiting Manufacturers,

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Near HUDDERSFIELD, ENGLAND.

SPECIALITIES:

Tropical Fancy Worsted Suitings,
Tropical Silk Suitings,
Tropical Cream Suitings,
Camel Hair Suitings,
Cotton & Union Suitings,
Silk Shirtings,

SPÉCIALITÉS :

ESPECIALIDADES :

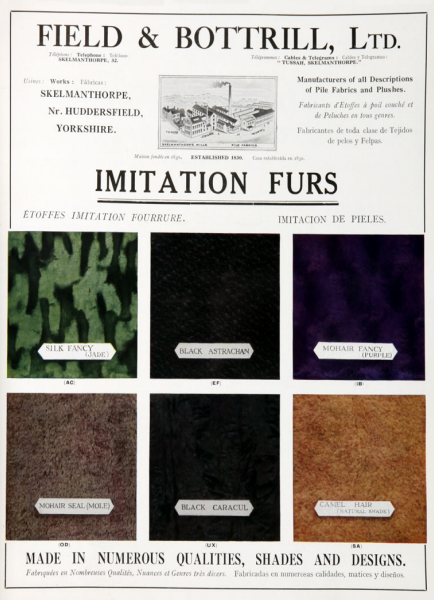
1967 Cloth production ended at Elm Mills.

Commercial Mill
Pure mohair and worsted wool pile floor rugs.
"Name of Company: OUTRAM & PEEL LIMITED. Nature of Business: RUG MANUFACTURERS. Address of Registered Office: Commercial Mills, Skelmanthorpe, Huddersfield. Liquidator's Name and Address: Stanley Sephton, 16-18 North Parade, Bradford BD1 3HT. Date of Appointment: 8th December 1982. By whom Appointed: Members and Creditors. (2S8)". THE LONDON GAZETTE, 14TH JANUARY 1983

Greenside Mill Saville Road
Field and Bottrill
"Percy Jackson's"
Haggas Fur Fabrics
Dawsons International
Built 1770s by William Marsden. His daughter married Richard Field who traded there for a number of years. 1820 William Marsden opened Greenside as dye-house and warehouse. Weaving carried out by weavers in own cottages.
Greenside developed into production unit under Richard Field who owned it from 1862. By 1860s turned from making shawls to quilting and skirtings. Greenside run by his son, Samuel from 1879. Partnership between Samuel Field and Thomas Bottrill. Mill became Field and Bottrill and produced pile fabric and Astrakhan cloths.

1880s Field and Bottrill pulled down handloom sheds and put steam looms in their place.

1883 Thomas Bottrill died without heir so Samuel Field left Greenside to nephew Percy Jackson. Still known as Field and Bottrill after Percy Jackson took over in 1896. Firm continued under Jackson family until 1967.



1967 Field and Bottrill Greenside taken over by John Haggas. Greenside became Haggas Fur Fabrics and then Dawson International.

Tentercroft Mill Saville Road/Elm Street
Samuel Field - hand-woven skirtings 1870s
Edwin Field - Angora tablecloths (Goat's head stamp)
Richard Field - fancy waistcoats, cloths and skirtings
Taylor and Field
Joseph and Jebson's
Field's horse blankets
1861 Edwin Field started Tentercroft Mills which had been a dye-house. Produced skirts, shirtings and floor rugs. Concentrated on shirts from 1876. 1879 J.T. Field runs firm with brother C. Edwin Field. 1886 J.T. Field introduces first power loom in Skelmanthorpe. 1887 mohair first used for rugs, mats, table covers. Taken over by his son John Thomas in 1900. Field and Sons employed on and off premise handloom weavers at Tentercroft Mill and in 1903 built 10 weaving cottages at Sunnyside.

1912 After retirement of John Thomas, Tentercrofts taken over by son Charles Edwin and then by Thomas Edwin in 1935. Closed down cloth and shirting business and began pile fabrics, table cloths, rugs, etc. employed 4-500 workers at Skelmanthorpe and 100 at Ravensthorpe. 1914 advises 50 weavers to find alternative work.

> *"FIELD (EDWIN) & SONS, Manufacturers of Angora Hearthrugs and Table Covers, Tenter Croft Mills, Skelmanthorpe, near Huddersfield. Warehouses: 2, Paternoster Square, London, E.C.; 33, Virginia Street, Glasgow; 6, Exchequer Chambers, Dublin; and 4, Waring Street, Belfast. Hours of Business: Office, 9 a.m. to 5 p.m.; Saturdays, close at 12 noon; Factories, 6.30 a.m. to 6 p.m. Established in 1862 by Edwin Field. Continued in 1897 by John T. Field, J.P., and Charles E. Field as Edwin Field & Sons. Present Principal: Charles Edwin Field. Premises: Cover 6000 superficial yards. Staff: 500. Agencies: 2, Paternoster Square, London, E.C.; 33, Virginia Street, Glasgow; 4, Waring Street, Belfast; 6, Exchequer Chambers, Dublin; Apollo Chambers, 326, Flinders Lane, Melbourne. Specialities: Angora Table Covers and Hearthrugs. Trade Mark: Head of the Angora Goat. Awards: Medals, City and Guilds, London. Connection: United Kingdom, Foreign, Colonial. Telephone: No. 5 Skelmanthorpe. Telegraphic Ad dress: " Edwin, Skelmanthorpe." Code: A B C (5th Edition). Mr. John T. Field is a Justice of the Peace for the West Riding. Pastimes: Shooting, Motoring, Golf."*

(Grace's Guide to British Industrial History).
1986 Could not meet its debts, mill bought up and closed down.

2005 Hepworth Rugs closed down. Had been using part of Tentercroft Mill and this ended 125 years of power loom production in Skelmanthorpe.

Outram and Peel
Based at Spencer Street in the village by at least 1911 later moving to Commercial Road.

Prospect Mill Commercial Road
Prospect Rug Company run by the Radley family were based at Prospect House, Commercial Road.

Noble Textiles
(rugs) were at Park Gate.

M.Radley & Sons Lidgett Lane
carpets and rugs

References

"A Handloom Weaver and his Loom are Difficult to Part", Leslie Robinson.
"Handloom Fancy Weavers", Alan Brooke, 1993
"Denby & District III", Chris Heath, 2006
[Tom Wainwright's recollections] quoted in A CATALOGUE OF THE TEXTILE MILLS AND FACTORIES OF THE HUDDERSFIELD AREA C.1790-1914, Alan Brooke, 2015, https://undergroundhistories.wordpress.com/
Photographs of Skelmanthorpe mills http://uktextilemills.co.uk/album/skelmanthorpe_mill Part of large site with photos of all mills in UK.
"Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004
Grace's Guide to British Industrial History, https://www.gracesguide.co.uk/Grace's_Guide

6. SCISSETT MILLS

Highbridge Mill
The site as 35m north of the crossing of the Dearne by the road from High Hoyland and 45m south-east of the Denby Dale Turnpike. A map of Scissett dated 1800 names Highbridge Mill to the east of the road leading north from the bridge.

> *1813 "Highbridge Mill, house, cottages and new-built corn mill of three storeys plus water wheel. Also all that other new erected mill, four scribbling and carding engines and steam engine for dry season" Owner Mr Burditt.*
> *https://undergroundhistories.wordpress.com/.*

In 1825 the former corn mill and most of the land on which the village of Scissett was later to stand, was bought by Joseph Norton. Using water power to drive scribbling and fulling machines he continued with the same method of business as his father, Benjamin Norton - supplying the yarn to out weavers and collecting the finished goods.

Soon to facilitate this, he built a row of 28 back to back houses to house the weavers called Fleet Row.

> *"This row of houses was not planned in isolation but as the first principal street in a future larger development. Although much criticised a century later, they were, in their day, purpose-built, designed with people's comfort in mind. Built two storeys high, the upper room was built to house the hand-loom and weaving tools. Large sash windows gave maximum light to all the rooms and the open flight of steps to the first floor led directly from the outside door giving easy access for the bringing in of raw materials and the taking out of finished goods. A large trap door closed off the whole of the top storey whilst weaving was being done. Each house had its own well in the cellar, the feed for which was a natural spring... and, in addition, each house was provided with a pig sty."*
> (http://www.genuki.org.uk/big/eng/YKS/WRY/Emley/ScissettHistory)

1842 Fire at six storey mill. £12,000 damage, 3-400 out of work. "large quantity of power looms destroyed" https://undergroundhistories.wordpress.com/ 1846 hailstones broke 1800 panes of glass including weaving shed. Jos Norton shown in 1851 Census.
1852 fire - mill totally destroyed, £8000 damage, 5-600 laid off. Detail of court cases brought by and against Jos Norton also firm's feasts, accidents, etc.
in https://undergroundhistories.wordpress.com/.

In 1857 Joseph Norton was recorded as a fancy woollen manufacturer and built Nortonthorpe Hall re-naming the mills Nortonthorpe Mills.
1864 Jos Norton retires. Clock presented to him by work people on his retirement, "Head of fancy woollen and silk shawl manufacturing firm for 40 years. Previously workman, raised himself up."
1866 Following death of George Norton firm merged with that of Jos Norton to form Messrs Norton Bro.
1871 Norton Bros. exhibited chinchillas, sealskins, Astrakhans, etc. at London International Exhibition.
1874 Jos Norton dies. https://undergroundhistories.wordpress.com/

Nortonthorpe Mills Wakefield Road
Norton Bros - fancy manufacturers, shawls, mantle covers

1801 Norton started mill in Scissett. By 1827 gave work to 638 handloom weavers from Stocksmoor to Kirkburton. ("Handloom Fancy Weavers", Alan Brooke, 1993)
1874 After Jos Norton's death, articles of association for Norton Bros. & Co. Ltd. Shareholders: Walter Norton, Rockwood House, Denby Dale, Fancy cloth manufacturer; Ben Norton, Highfield House, Denby Dale, Fancy cloth manufacturer, Thomas Norton, Bagden Hall, Denby Dale, Fancy cloth manufacturer; James Farmer, Regent St., London, Shawl merchant; John Henry Bottomley, Nortonthorpe, Scissett, Cashier; Alfred Marshall Box, Woodland Mount, Scissett, farmer.; Charles Schofield, Clayton West, warehouseman. https://undergroundhistories.wordpress.com/

1881 Directory: Norton Bros & Co. Ltd. fancy shawl and mantle manufacturers, also Cuttlehurst Mill. https://undergroundhistories.wordpress.com/

1894 Depression - crisis - proposed winding up of Norton Bros as depression more acute, change in ladies' attire, fall in value of raw material, therefore assets devalued. 1895 Scribbling and weaving machinery to be sold, including 90 four box hand looms with Jacquards. Lease of room and power to R. Beanland.
1899 occupied by different firms; Norton, Schofield & Cockroft shawl, rug and mantle cloths.

1902 renewal of tenancy by W.J. Beanland, R. Beanland and Arthur Beadsell. Rent £1000 per year. Room and power: 5720 spindles for spiing/twisting worsted.
1910 Directory: Norton, Schofield & Co. shawls, mantle cloths, trimmings, table covers, curtains, rugs, etc.
1918 lease of two-thirds of mill to G.H. Norton.

1935 death of Thomas Norton of Bagden Hall, aged 90, obit: Deputy Lt of West Riding, born 1845 son of George Norton. Entered partnership with cousins 1866. Retired 1894. Landowner in Farnley Tyas. Lord of the Manor of Thurstonland. Sold Storthes Hall estate to West Riding County Council . His son, George Norton carries on plush manufacture at Nortonthorpe and Cuttlehurst Mills. https://undergroundhistories.wordpress.com/

> *NORTON, G. H., & CO., Woollen Manufacturers, Nortonthorpe Mills, and 11, Station Street, Huddersfield. Hours of Business: 6.30 a.m. to 6 p.m.; Saturdays, close at 12 noon. Established about 1790 by Benjamin Norton. Present Principal: George Herbert Norton, the Present Principal (great-grandson of the Founder). One of the oldest and best-known firms in the trade. Premises: Extensive Mills near Huddersfield. Staff: About 400. Agencies: London, Glasgow, Manchester, &c. Specialities: Shawls, Mantle Cloths, Plush Goods, and Plush Mats and Rugs. Connection: World-wide. Telephones: Nos. 46 and 47 Skelmanthorpe. Telegraphic Address: " Mantles, Scissett." Bankers: Lancashire & Yorkshire Bank, Ltd.*

(Grace's Guide to British Industrial History, **https://www.gracesguide.co.uk/Grace's_Guide**)

Dobcross Weavers
Norton Bros

Beanlands
1830s onwards. R. Beanland and Company and also gradually developed Spring Grove Mills in Clayton West and operated from part of Nortonthorpe Mill.

Wood Street Mills
Phoenox Rugs started in 1954 and still operating.

Cuttlehurst Mill
Norton's
A Stock Book of 1821 – 80 “witches” listed as in operation.
Benjamin Norton started as a small time Clothier, but moving premises to Cuttlehurst in 1801 he prosperously established himself. His sons Joseph, Thomas, William and George helped their father run the Cuttlehurst business, although all four later built their own textile businesses.
Joseph Norton – became one of the country’s leading manufacturers of figured, high quality shawls and fabrics; the final accolade being when Queen Victoria became a customer and granted the firm the royal “By Appointment” Cipher.
The Norton Brothers followed the example of philanthropic manufacturers like Titus Salt; Joseph building The Fleet property, William building the Spring Grove cottages and George Kitchenroyd.
In 1866 the family mills were amalgamated and they changed the name of Highbridge Mill to Nortonthorpe Mill. At the same time they were unsuccessful in changing the village name from Scissett to Nortonthorpe.

1899 Walter Norton, Thos. Norton and Charles Dixon lease mill to Lewis Crowther for £200 per year. 1901 Lewis and Crowther machinery to be sold. 1902 mill to be let.
1910 Blackburn and Sons, cotton doubler, fancy twists, grandrelles and yarns. 1914 T. Norton provides accommodation at mill for 10 Belgian refugees. https://undergroundhistories.wordpress.com/

Dearne Royd Mill
Rugs

Ings Dyeworks
1890. James Beaumont and Sons

7. CLAYTON WEST MILLS

Ings Mill
1906 William Coldwell in liquidation. To be sold: worsted weaving plant and mill; weaving shed, boiler house, office and warehouse. https://undergroundhistories.wordpress.com/

Spring Grove Mill

Purpose built work flow designed building completed in 1825 by William Norton (1791-1864), second son of Benjamin Norton of Cuttlehurst. Taken over by the major creditor John Wood with his partner Charles Walker (Walker’s & Co Worsted Spinners and Top Makers of Bradford). Business sold in 1869 to Robert Beanland, Isaac Naylor and William Thompson Beanland; Messrs R Beanland & Co for the sum of £8,500.
Beanlands made both white yarns for piece (cloth) and garment dyeing and also coloured yarns, for customers throughout the UK and yarns exported to Canada and Egypt.
Closed 1975 Spring Grove Mills sold to Phoenox rug and carpet manufacturer.
John Wood (elder and younger) different to other mill owners of the time, treating employees kindly and with respect. John the younger encouraged his friend Richard Oastler, campaigner against West Indian Slave Trade, to put an end to child exploitation in many mills and other places of employment. Resulted in **The Ten Hour Act of 1874**.
("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)

Built at the beginning of Victoria's reign by William Norton. Went bankrupt and sold in 1833 taken over by Wood and Walker, worsted manufacturers. 1867 William Walker dies: obit. "died aged 65. Formerly of Bolling, Bradford; supporter of 10 hours Bill and assisted Oastler." Mill bought and developed by R. Beanland and Company in 1870s. 1915 William Thompson Beanland dies aged 76, obit. "son of Robert of Bradford, worsted spinner." Coffin carried by Spring Grove workers. (Alan Brooke, https://undergroundhistories.wordpress.com/)

Now Phoenox Textiles Ltd Spring Grove Mills, Clayton West Huddersfield.

> *"Phoenox is an award winning family run business, friendly helpful and customer focused. Our business has over 190,000 square feet of manufacturing and warehousing space, split over 2 sites in Clayton West near Huddersfield. We produce over 2 million square metres of tufted floor covering each year, in a wide range of designs and thicknesses."*

Gelder's Mill

George Gelder, fancy woollen manufacturer. Died 1899. obit. "of Clayton West, former traveller for George Norton until 1848. Partner in Peace & Gelder, yarn spinners, Huddersfield." https://undergroundhistories.wordpress.com/

8. DENBY DALE MILLS

Hartcliffe Mill off Wakefield Road
The business was founded in 1766, engaging in various trades including farming, cloth making and coal mining." In 1804 there was a newly erected mill for scribbling and carding of wool and for spinning and carding of cotton twist" No evidence has been found that the lease was renewed in 1846, but the woollen mill was expanded by J Hinchcliffe & Sons, a firm founded in 1850. “Water Mills and Furnaces on the Yorkshire Dearne and it’s Tributaries”, by Tom Umpleby Wakefield Historical Publications.
Hartcliff Mills were used for scribbling and carding wool from 1804, then were expanded in 1846 to spin woollen and worsted yarns. By 1860 they were powered mainly by coal.
“Water Mills and Furnaces on the Yorkshire Dearne and it’s Tributaries” by Tom Umpleby Wakefield Historical Publications.

J. Hinchcliffe & Sons, founded in 1850 expanded Hartclif Mills for the spinning of woollen and worsted yarns. In 1860, when Zaccheus Hinchliffe, seventh son of John, received Hartfliff Mill as his share of the family business, it was recorded that there was a plentiful supply of soft water for washing the wool, and also a plentiful supply of coal. “Water Mills and Furnaces on the Yorkshire Dearne and it’s Tributaries” by Tom Umpleby Wakefield Historical Publications.

> *"This site is still our headquarters today. Early in 1980 the worsted spinning ceased and all efforts were put into expanding the woollen spinning production. Since trading began the business has stayed in the family, handed down from generation to generation. Succeeding Zaccheus was John, James, Thomas and Harold Hinchliffe who were joined by cousins Arthur Wilby and Herbert Dewhirst. Then followed John Hinchliffe and George Wilby. Today George is joined by John’s sons Robert and James Hinchliffe, as well as his own son Graham."*

(http://www.zhinchliffe.co.uk/history_hinchliffe.htm)

Inkerman Mill Barnsley Road, Denby Dale
James Peace was an early occupier. John Brownhill & Co. were in the mill by 1910.
("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)
John Brownhill & Co Ltd, woollen, worsted and artificial silk manufacturers
1868 Brownhills & Scatchard
1903 "Huddersfield Examiner", 28 Mar: John Brownhill, obit, 67, b. Upper Cumberworth, well read self educated man, 1862, to Bingley, 1869, builds mill at Denby Dale, Liberal and Wesleyan. Most of Denby Dale closed for funeral.

Dearneside MIlls Churchfields, Denby Dale
Among other firms, Kenyons wove cloth for Ehrenbach, Braun & Co of Bradford according to their own designs, whilst yarn was put out to be dyed at Thomas Brierley & Sons of Denby Dale, Cartwright & Co of Thurlstone and David Lockwood at Kirkburton, all within easy reach of the mill at Dearneside.
During 1881-82 Kenyons used the local firm of James Littlewoods in Denby Dale. Their invoices show a range of colours – indigo blue, black, scarlet, green, blue, magenta, violet and primula.

> *Advertisement: “Jonas Kenyon & Sons Ltd - high class Worsted Manufacturers - Worsted Tennis cloths and Gaberdines, Indigo Serges in all weights, Dress Coatings, Trouserings, Fancy Vestings, Brocades for shoes.”*

Dyeing of indigo material was quite specialised work and often put out to dyers, although some was done by the firm itself. The dye was expensive and had to be conserved wherever possible, so the pieces were wrung out and the dye recycled (workers hands were almost as blue as the cloth itself).

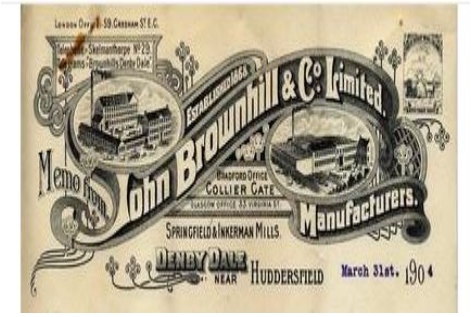
During the First World War the firm was making army uniforms in khaki and 'hospital blue'. The blue uniform, just the same rough wool mix as normal uniforms, was worn by soldiers in military hospitals around the country (including the Victoria Memorial Hall in Denby Dale, which was taken over for the purpose).

1854 – Jonas Kenyon opened a hand weaving mill on Bank Lane making fancy worsteds. He is said to have "made cloth on wet days and to have farmed and played cricket on fine days."

1883 – the business expanded and moved to Dearneside Mills, which bordered Churchfield to the north east. Four generations of the Kenyon family ran the business, producing various worsted cloths and trading worldwide until with the increase in cheap imports, it closed in 1977. http://www.friendsofchurchfield.org.uk/history/

Upper and Lower Putting/Pudding Mills
Lower Pudding Mill,the site of a former fulling-mill and corn-mill near the Travellers Inn on Wakefield Road.
1796. Tom Booth scribbling mill lately erected, transfer to John Charlesworth clothier, Honley. https://undergroundhistories.wordpress.com/
1826 Jos Booth occupier - to be sold. https://undergroundhistories.wordpress.com/
1851 document shows converted to cottages. 1859 cottages to be sold.
Lower Putting Mill was the site of a fulling mill from 1818 to 1830 and a paper mill 1830 to 1834. The buildings were occupied in 1841 by three fancy weavers and two dyers.

Springfield Mill Norman Road, Denby Dale,
Brownhills - Qualitex



The Mill's history is a little sketchy as to when it was first opened but records indicate that Brownhills & Scatchard moved to Springfield Mills in 1900 from nearby Inkerman Mills where they had been from 1868. These owners occupied the mill for many years specialising in the making of fine silks and chiffon for gowns and wedding dresses. In fact the company produced a bolt of silk for the Queen Mother's wedding dress for her marriage to the future George VI in 1923. During the war years the company also produced parachutes.

Brownhills was taken over in 1961 by Qualitex Silks of Colne, Lancashire and this company ended manufacturing at the mill in 1979 where it was let dormant until it was purchased by the Charltons.

In 1979 Springfield Mills was acquired by the Charlton family to display, store and distribute American furniture made by Broyhill Furniture Inc., one of the largest furniture manufacturers in the US. This furniture was supplied to Harrods, Debenhams, Selfridges, John Lewis Partnership and other stores nationwide.
After trading successfully for several years, the business suffered greatly by the strength of the dollar and it was decided to create and rent off separate units for retail and business use.
To help their tenants they offered short term contracts which, at that time, was almost unheard of.
When the mill was bought from Qualitex it was closing down with around 105 people having to loose their jobs. http://www.springfield-mills.co.uk/aboutus.html

John Wood's Mill Miller Bridge, Denby Dale
Later Brierley's

Giles Gartside's Mill Cookstools, Denby Dale
Established pre-1800s

Birdsedge Mill
This mill was 90m east of the old road bridge over the Dearne and 140m east of the Huddersfield to Penistone Turnpike road. A plot here was sold to Dickinson, clothier in 1801 and the 1801 Enclosure Award man names buildings here as "Wm Dickinson's Mill". Hirst Brothers were here in the mid-1800s. with a partnership of Hirst, Thorp & Co., scribbling and fulling millers dissolved in 1845. Two partners, William and Charles Hirst agreed to continue with two other. Hirst Bros. were recorded as woollen manufacturers in 1862, but Child and Company were there by 1890 as Fancy Goods Manufacturers and F H McGrath in 1910. as Worsted Manufacturers. ("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)
Later Z Hinchliffe and Sons

Cuttlehurst Mill
A later mill, built about the end of the 19th Century, when LT Crowther and Company were here; J. Blackburn and Sons here in 1910. ("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)

9. SHEPLEY MILLS AND THE SHEPLEY "HIGGLERS"

Cliff Mill
Occupied by John Goldthorpe. 1877 declining business. 1878 to be sold together with dwelling house and six cottages and machinery. At time occupied by Riseley & Co.
https://undergroundhistories.wordpress.com/

Shepley New Mill
Built by James Kenyon in 1859. The firm became Barnicot & Kenyon, by 1861, fancy woollen manufacturers. 1889 John Barnicot dies, obit. " originally from Cornwall. In 1859 formed partnership with Kenyon, Bedford manufacturer. Begins fancy worsted production and moved to Shepley." https://undergroundhistories.wordpress.com/
1889 mill to be sold, "modern mill premises, Barnicot & Kenyon late occupiers, 5 storey mill, weaving shed and machinery." https://undergroundhistories.wordpress.com/
1910 Firth Bros. were at the mill making fancy tweeds with 8,200 spindles and 112 looms. ("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)

Firth Mill Demolished 1978

Victoria Mill
Built as a warehouse and an early dyehouse by the 1880s in use as a textile mill by Ben Armitage & Sons. Still there alongside W & E Armitage in the 1950s. ("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)

Whitby Mills/Armitage's Mill
Owned by Armitage family manufacturing fancy textiles.
1910 Ben Armitage & Sons Ltd. woollen & worsted manufacturers. ("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)

Shepley Higglers

According to the 1896 edition of "The Master Tailor and Cutters' Gazette", Shepley, was at that time, "the richest village in England - a tailor's Paradise". Indeed, the 1901 Census reveals that there were 16 tailors in Shepley most employing between 8 and 10 girls to sew the suits they made as well as cutters to cut out the patterns for them.

To get orders the tailors or one of their employees began to travel to outlying areas, perhaps by pack horse or pony and trap to start with, but as soon as Shepley station opened, around 1850, they travelled to other places by train along the Penistone line. These travelling salesmen were known as "higglers". They carried with them a small suitcase of cloth samples, a tape measure, a notebook and pencil in order to measure their clients in their own homes and bring back orders for tailored suits. The client would try on the suit for a more accurate fitting before final delivery. No doubt the higglers also collected deposits, interim and final payments. Parcels of clothing were dispatched each day from Shepley railway station. (https://sites.google.com/site/kirkleescuriosities/file-cabinet/shepley)

The woollen mills produced the cloth that was then sold by those who seemingly earned the village its reputation for entrepreneurship. Says David:

> *"The cloth merchants and tailors were known as higglers. They would work from home but use the railway to travel to neighbouring towns to obtain orders for their*

suits and jackets. A century and more ago they would take cases of samples from Shepley station every morning ready to sell to the masses, and when they returned home they would cut the cloth to match the orders they had taken during the day. A team of something like eight to 12 girls would then stitch the suits in a workshop behind the higgler's often very handsome home."

The Shepley Higglers, as they became known in tailoring circles, were celebrated in the 1896 edition of The Master Tailor and Cutter's Gazette as making their community "the Richest Village in England – a tailor's paradise" (Yorkshire Post, Friday 30 September 2005, https://www.yorkshirepost.co.uk/news/tailor-made-village-1-2534260)

10. SHELLEY MILLS

Brookhouse Mill
William Child & Co. rug manufacturers were here in 1900s.

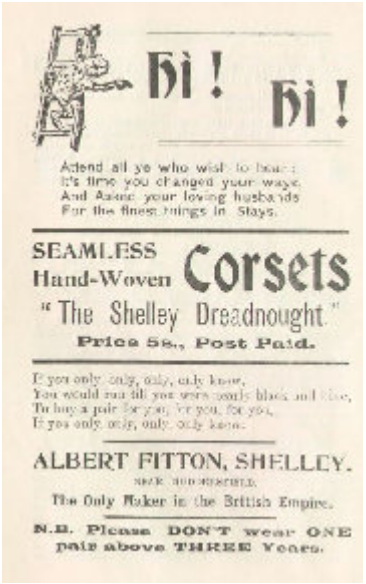
Barncliffe Mill
In 1950 this mill housed Shelley Textiles Ltd. Tweed & Co. Ltd. and England & Co. (Shelley) Ltd.

Shelley Woodhouse Mill
Ben North was in this scribbling mill in the 1794. First scribblers were powered using two asses on a treadmill. https://undergroundhistories.wordpress.com/ 1834 Ben Fitton & Sons who were still there in the 1860s, when 1864 fire destroyed part of mill - £2000 damage, although mill know owned by Burnup of Cleckheaton. 1869 Smart & Hardisty bankrupt. 1871 Owner J. Burnup mill to be sold or let along with houses, carriages and 21 acres of land. "The estate is in a ring fence and is well supplied with water and adjoins the highway leading from Huddersfield to Clayton West on the north and the highway leading from Huddersfield to Denby Dale on the south. Apply George Kilner on premises to view, or Mr Burnup, Cleckheaton to treat for purchase or lease. https://undergroundhistories.wordpress.com/.
1872 Messrs Tolson, Haigh and Brook leased part of the mill. ("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004).
1890s advertised to be let again. 1902 Estate sold. https://undergroundhistories.wordpress.com/

Corset Making
This was one of the more unusual occupations, in fact the products were unique to Shelley and Albert Fitton, the most famous Shelley corset maker, claimed in 1907 and 1913 to be "the only maker in the British Empire" and Shelley to be the only corset making village in the country. The production of corsets in the village seems to have been partly a cottage industry and partly a factory one. Weavers, working on their looms in the upper rooms of their cottages, where there was more light from the upper windows, wove the corsets in one piece to a complicated pattern. It involved the weaver operating about 10 treadles with his feet and 4 or 5 shuttles which he threw by hand across the width of the fabric on the loom at intervals. The corset had to go out for the hip and bust sections and in for the waist. The method used was quite different from the normal method of corset production at the time which involved stitching a dozen or so pieces of fabric together, boning and trimming them. Instead the Shelley garments were produced in one piece then cut down the back, hemmed, backbones fitted when used, eyeleted and trimmed with lace. They could be made to measure and even adapted to fit deformed and misshapen bodies. The corset was nicknamed "The Shelley Dreadnought". Albert suggested it be worn for only

about 3 years, but he knew one women who had worn hers for 12 years and others who had worn them for 7 or 8. After a hard week's work each weaver would carry his bundle of corsets to the factory and exchange it for cash and a parcel of weft and warp threads. The rest of Saturday was his rest day, apart from maybe tidying up his loom.
In 1856, the same year he married Amelia Mosley at the Independent Chapel at Kirkburton, Henry Fitton opened a new "shop" at Red Hill employing about 80 weavers with 20 to 30 women ironing the stays in their own homes. In 1881 he was employing 41 men and 14 females according to the census. 10 years later his son Albert, aged 28, was also a corset manufacturer, albeit he still lived with his parents at Hill Top, Shelley. Soon afterwards though, on 21st April 1892, Albert married Ellen Ann Mitchell at Shelley New Connexion Methodist Chapel and established his own home and family at Far Bank and his corset factory at Bank Bottom. His parents appear to have emigrated to Queensland, Australia, and "The Leeds Mercury" published a photo of them there in May 1906. Henry had been chairman of Shelley School Board and the District Council and had some influence in the village.

Albert was to face hard times ahead. "The Huddersfield Examiner" of 17th May 1916 reported that a receiving order had been made for the estate of Albert Fitton, corset manufacturer of Far Bank, Shelley, who was adjudged bankrupt on his own application. A personal disaster followed. His son, Frank, an art student at Goldsmiths College, London, drowned whilst on holiday in Mablethorpe. He had gone for a swim in the sea with a female companion, Frances Wright, in August 1921. Both got into difficulties, she managed to save herself but Frank did not.
Albert died in January 1934 and is buried in the graveyard of Shelley Methodist Church. His son, Frank, is mentioned on his gravestone. (Kirklees Curiosities: https://sites.google.com/site/kirkleescuriosities/file-cabinet/shelley)



11. KIRKBURTON MILLS

Albion Mill
?
Beehive Mill
Joab Ramsden Brook, stay and corset manufacturers was one of the early occupiers of this mill. Daniel Brook was in the mill from the 1870s for about twenty years as stay and

corset manufacturer. Trade introduced into district by Chas Hepponstall 20 years' before. (https://undergroundhistories.wordpress.com/) 1876 Four storey building completed.

The Huddersfield Chronicle for Feb 26th 1887 reports:
"On Friday evening last week Mr Earle Brooke, stay and corset manufacturer, Beehive Mills, Kirkburton gave his workpeople a substantial dinner; his tenants and the railway officials also joined to do duty to the good things provided."
1890s sold and no longer used for the textile trade. ("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)

Linfit Mill Linfit Lane
Linfit Mill was built about the beginnings of the 19th Century. It was quite unusual in that it was built specifically to take advantage of the coalfields to the south-east of Huddersfield in an area with very little water power with no major rivers or large brooks. By 1836 the mill was owned by George Hey who rented parts out to others. There is a full account of the mill at this time in The Factory Commission Inquiry of 1834. ("Employment of Children in Factories", Parliamentary Papers, House of Commons. George Hey died in 1858 and the mill was taken over by his son George and grandsons John, Charles and George. The Hey family decided not to continue the business in 1897 and in 1900 an advertisement appeared in the "Huddersfield Examiner" for the sale or lease of Linfit Mill. Wright Blackburn & Co. hearth rug manufacturer was operating from the mill at the beginning of 20th Century. The last of the coal was worked out in 1927 and the mill closed soon after. The building became one of the first mills to be converted in residential units. ("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)

Manor Mill: One of three former corn mills in the township, the others being at Dogley Bar and Smithy Hill. Dating from about 1832 this mill had one of the largest water wheels in the country, with a diameter of 50 feet: it was removed for scrap during the Second World War. "REPLICA of one of the largest waterwheels in the UK could be installed as part of an historic mill restoration project." ("Huddersfield Examiner", 7 JUL 2012)
Started 1800. Kenyon and Hey families. (https://en.wikipedia.org/wiki/Kirkburton)

Springfield Mill
The oldest part was built as a warehouse about 1830. The main building, in a similar style but larger, was added for spinning in 1834 and the weaving sheds opposite in 1849. Wright Rhodes from Saddleworth bought this mill in 1845. By 1876 it had been sole to Hirst Hanson & Sons. B.H. Moxon & Sons took the mill around 1910 and remained until 2007. ("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)
Now Grosvenor Weaving Company Ltd, Springfield Lane Mills, Kirkburton, Textile Manufacturers and other small industrial units.

Green Grove Mill
Established in 1833-4 as two-storeyed six-bay handloom-weaving shop by partnership of two fancy weavers and a dyer. Rare survival of an intermediate stage in transition from domestic production to factory system. Powerlooms apparently not introduced to the mill until the 1870s or later, illustrating predominance of handloom weaving in fancy manufacturing long after the powerloom had become common in rest of woollen branch. Loomshop was heightened and lengthened c1850. A tentering shed, dyehouse, warehouse, power plant and cottages complete the complex.

(Yorkshire Industrial Heritage, http://yorkshire.u08.eu/kirkburton/63151/)
Sydney H Shaw & Co. Ltd. were here in 1950; now a clothing manufacturers.
("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)

Brookfield Mill
This was originally a rope and twine manufacturer run by Dan Brook, but by 1910 it was Singleton & Co. woollen manufacturers. Pape and Sons moved here from Paddock about 1950. ("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)

Carter Mill
In 1910 Gustav Geissler was here. By 1950 Whitworth's Textiles had taken over the mill.
("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)

Dogley Lane Mill
An early fulling and scribbling mill on the Dartmouth estates used by Jonas and James Kenyon for many years. 1910 Liversedge & Co. and Allen Dyson, merino spinner.
Thompson Woollen Manufacturing Co. Ltd. had replaced them by mid-1950s.
("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)

Southfield Mill
Used by B.H. Moxon for some time. ("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)

12. LEPTON MILLS

Cowmes/Spa Mill
Built around 1830, it housed various firms including Abraham Brierley who went into partnership to form Rhodes and Brierley of Vale Mills. The firm of Rowland Mitchell & Co. were in the mill for the first half of the 20th Century. ("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)

Rowley Mill
This was a fulling and scribbling mill on the Dartmouth estates in the 1790s. The firm of J & T Kenyon were in the mill for many years to the end of the 19th Century when it was sole to George Beaumont and sons.

Vale Mill
Also known as Tandem Shed. Built in the 1880s by the firm of Rhodes & Brierley. ("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)

Whitley Willows Mill
Built 1770 shown on map 1780. Tolson Bros. moved here in the 1850s and ran scribbling mill. https://undergroundhistories.wordpress.com/ 1867 for sale. Taken over by George Kilner and Brother Charles. 1899 Kilner retires then Glendinning Brothers also spent some time here before moving to Huddersfield. ("Huddersfield Mills: A Textile Heritage", Vivien Teasdale, Warncliffe Books, 2004)

13. FARNLEY TYAS

Farnley Mill

Farnley Mill was first recorded in Land Tax Returns of 1793, when it was leased by William Roberts as a fulling and scribbbling mill. It appears to have been constructed around this date, and in the 1805 Terrier of the Dartmouth Estate it was referred to as a ‘fulling and scribbling mill built by the tenants (Roberts and Co) in 1794... The mill is chiefly worked by a steam engine as the water is a very poor supply from a few small reservoirs’ (KC1059).

A plan of the Farnley Tyas estate within the terrier depicted the mill (as a single rectangular building) with three reservoirs. It was not possible to copy this plan at the archives. In the 1828 Terrier, it was recorded as a stone and slate scribbling, carding and slubbing mill consisting of five chambers, with an engine house ArcHeritage 4 Farnley Mill - ArcHeritage Survey Report Report No 2012/9 and steam engine of 11 hp and water wheel of 16 hp, on a lease expiring 1 August 1836 at a yearly rent of £5-5-0 (1828 Dartmouth Estate terrier). An accompanying sketch plan of the mill (Figure 3) depicted the general layout of the buildings, with notes on the side recording the machinery: four carders, four billys, six scribblers, two devils or fearnoughts, as well as water power of 16 hp for three months, [steam] engine of 10 hp, and coals, 10 dozen a week at 6 shillings per dozen. At that date, the tenants were Robert and Kay. It is unclear from the sketch plan exactly what the note ’16 h.p. – 3 months’ refers to. It may mean that 16 horse power was only available for three months of the year, due to fluctuating levels of water in the catchment. At other times of the year, such as summer and winter, the water power may have been substantially lower, or only available for short periods of time.

In 1834, the Factory Commissioners' Report recorded the mill as providing scribbling and slubbing for domestic manufacturers, powered by a 10 hp atmospheric engine and 12 hp water wheel on a 'nameless rill'. There were 21 employees, 11 of which were under 14 (five girls and six boys), as well as three girls aged between 14 and 16. The mill was run by Roberts, Kay and Dyson in 1834, but by 1836, a report in the Halifax Guardian mentioned that it was operated by Baildon, Dyson and Co (HG 2 July 1836). The 1838 Farnley Tyas Poor Rate Book recorded the mill as occupied by Fairbourn and Pearson (UKB/FA), and an 1847 trade directory recorded Fairburn and Pearson, scribblers and woollen manufacturers. In 1850, the mill was advertised to let in the Leeds Mercury. This described:

> *'A scribbling mill, together with two cottages and the outbuildings belonging thereto, late in the occupation of John Pearson and Co. There is an excellent steam engine of 14 hp with boiler, stove, five scribblers, four billys (60 spindles each), willy, Fearnought and other machinery for carrying on the woollen business to advantage.'*

(Leeds Mercury 17 August 1850)

All the early 19th -century reports indicate that the mill was utilised for preparatory wool processing activities. Initially, wool from a fleece would have to be sorted into different grades and then scoured to remove dirt and grease. It was then willeyed, which involved further beating of the wool and separation of the mass of fibres, before it was carded to further disentangle and straighten the fibres. This involved drawing wire teeth through the fibres to produce a roll or sliver. Fearnought machines featuring cylinders with hooked teeth were used to disentangle the wool fibres, after which scribbling and carding machines were employed, scribblers producing a coarser product than carders (Giles and Goodall 1992, 7-9). The slubbing billy was used to combine slivers and provide twist, and to wind the product onto bobbins. The yarn would then be distributed to clothiers in the nearby villages, for spinning and weaving. The 1805 terrier indicates that fulling may also have been carried out at the mill; this was a finishing process for woven fabric, involving scouring and washing the cloth in fulling stocks, where the material was pounded by wooden hammers to give a felted appearance. The fabric would then be stretched and dried on tentering racks, with indoor tentering in dryhouses developed in the early 19th century (Giles and Goodall 1992, 12).

It is interesting that prior to 1874 only one document, the 1805 terrier, refers to fulling at Farnley Mill. The 1828 terrier does not mention fulling, and no fulling stocks or drying apparatus were mentioned in the 1850 advertisement for the mill. ArcHeritage 5 Farnley Mill - ArcHeritage Survey Report Report No 2012/9

The mill lease appears to have been purchased by Herman Geissler, a fancy woollen manufacturer who was born in Frankfurt. In the 1851 census, Geissler was recorded as being married to Harriet, who was born in Kirkburton. They lived at the Dean, Kirkburton. Harriet was the daughter of William Carter, a fancy manufacturer residing at the Dean, Kirkburton. He ran Ellis Mills and the Dean Dye Works. As well as operating Farnley Mill, Geissler also took over Carter's business after his retirement in the 1860s. Geissler died in 1880 and was succeeded by his son, William Carter Geissler, who was in turn succeeded by his brother Gustav in 1888 (Burton Dean website). The focus of production at the mill appears to have changed after Geissler took it over, with spinning and weaving being introduced for the manufacture of fancy woollens. Spinning mules and jennies were recorded in a report in the Huddersfield Examiner in 1864, when a 15-yearold girl was injured when her clothes were caught in a jenny (HE 22 July 1864).

Mechanised spinning and weaving were introduced to the woollen industry in the 1820s-30s, though takeup was relatively slow until the 1850s, and handlooms continued to be used widely in the manufacture of fancy woollens. It is unclear whether Geissler's company continued to provide processed yarn to domestic weavers, or concentrated on production of his own goods. An indenture of 1874 between William Walter, Earl of Dartmouth and Herman Geissler related to a lease of the mill, waterwheel, cottages and outbuildings, for a term of 33 years from May 1874 (WYL 1219/34). The indenture recorded the property in some detail, including a reference to the waterwheel (which was the property of the Earl) and 'the old shaft and two drums which pass through the old mill'. In addition, it stated that the tenant would 'in the first year of the said term lay out and expend in building improvements and in constructing a new reservoir on the sites already agreed upon'. The accompanying plan and map showed the location of the mill, with three reservoirs (Figure 5b), and the layout of the buildings (Figure 5a). The plan depicted the long rectangular building at the east side as 'woollen mill', and showed the location of the wheel house and a new building to the west called 'weaving shed'. It is unclear whether all these buildings were extant at the time, or included the extensions 'agreed upon'.

A report in the Huddersfield Examiner on the 1st January 1876 mentioned that extensive additions had been made to Farnley Mill in the previous year. The 1854 OS map depicted the mill as being of a similar size to that shown on the 1828 sketch plan, but the more detailed 1893 1st edition 25 inch: 1 mile OS showed a much larger building. Interestingly, the 1854 map showed four small reservoirs to the west of the mill, whilst by 1874 a much smaller water body was shown at the west end and in 1893 only three were depicted. This may indicate that by the end of its existence, water power was no longer used at the mill, with steam generation requiring substantially less water. Water from the reservoirs may also have been used by the gas plant. The new reservoir referred to in the 1874 lease may be the one to the northwest of the mill, depicted in 1893, north of Mill Lane. Water from this reservoir may have been taken into the east end of the mill, though no infrastructure associated with this is visible. Given its location, no other obvious purpose for this reservoir is known.

The 1874 lease document includes subsequent indentures relating to the mill. The first, dated to December 1880 was between Geissler's widow Harriet and his son William Carter Geissler, assigning the mill to him in consideration of a sum of 10 shillings, for the residue of the ArcHeritage 6 Farnley Mill - ArcHeritage Survey Report Report No 2012/9 unexpired term of the lease. A further document, dated 11th May 1886, was between William Henry Armitage, accountant of Huddersfield, and William Walter, Earl of Dartmouth, surrendering the mill to the Earl in satisfaction of all claims against W.C. Geissler. It stated that the mill had been conveyed to Armitage in January 1886 'upon certain trust for the creditors of said William Carter Geissler'. This suggests that Geissler was facing bankruptcy at the time.

On the 13th February 1886, the machinery from Farnley Mill was advertised for sale in the Huddersfield Examiner. Shortly afterwards, in April, the steam engine, boiler, fittings and gas works were also advertised for sale. The machinery to be sold included scribblers, carders, self acting and hand [spinning] mules, twisting and winding frames, 36 power looms, perpetual, brushing machines, raising gigs, tentering machine, washing and milling machines, four fulling stocks, a hydro extractor and a willow [willey]. The stock of material, woollen and worsted yarns were also sold (HE 13 February 1886). The separate sale included a 35 hp steam power with 28 inch cylinder and five feet stroke by Cole, Merchant and Co and a 'nearly new' boiler with 8 Galloway tubes, by J. and J. Horsfield of Dewsbury (HE 10 April 1886). Geissler and Son's Ellis Mill in Kirkburton was also sold, in 1884,

though the company still operated from Carter Mill, specialising in livery cloth. The company appears to have closed down during the First World War (Burton Dean website).

There are no clear records of Farnley Mill having been reoccupied after the sale of machinery in 1886, though it was not described as disused on the 1893 OS map. The sale of the machinery suggests that no other tenant was being sought; it is possible that its remote location made it uncompetitive in comparison with much larger mills in the nearby towns and villages. The 1906 OS depicted the mill as disused; many of the buildings were still shown, though most of the original mill and the 'woollen mill' at the eastern side had been demolished.

(ARCHAEOLOGICAL INVESTIGATIONS AT FARNLEY MILL, FARNLEY TYAS, WEST YORKSHIRE, SURVEY REPORT Report Number 2012/9.2 June 2012, ArcHeritage, the trading name of York Archaeological
Trust), http://iadb.co.uk/epip/Farnley%20Mill%20text%20plates%20figures.pdf

14. Glossary of textile manufacturing

From Wikipedia, the free encyclopedia

A

Absorbency

A measure of how much amount of water a fabric can absorb.

Acrylic

Acrylic fiber is a synthetic polymer fiber that contains at least 85% acrylonitrile.

Alnage

Alnage is the official supervision of the shape and quality of manufactured woollen cloth.

Alpaca

Alpaca is the wool of the Peruvian alpaca.

Angora

Angora refers to the hair of the Angora rabbit, or the fabric made from Angora rabbit fur. (Fabric made from angora goat is mohair.)

Appliqué

Appliqué is a sewing technique in which fabric shapes, lace or trim, are sewn onto a foundation fabric to create designs.

Argyle

An argyle pattern is one containing diamonds in a sort of diagonal checkerboard pattern.

B

Backstrap loom

Backstrap looms, as the name implies, are tied around the weaver's waist on one end and around a stationary object such as a tree, post, or door on the other. Tension can be adjusted simply by leaning back. Backstrap looms are very portable, since they can simply be rolled up and carried.

Baize

Baize is a coarse woollen or cotton cloth, often coloured red or green.

Barathea

Barathea is an indistinct twill or broken rib – usually a twilled hopsack weave – with a fine textured, slightly pebbled surface. Often of silk or silk blended with wool, used for neckties, women's fine suits and coats, men's and women's evening wear.

Batik

Batik is an Indonesian traditional word and refers to a generic wax-resist dyeing technique used on fabric.

Bias

The bias direction of a piece of woven fabric, usually referred to simply as "**the bias**", is at 45 degrees to its warp and weft threads. Every piece of woven fabric has two biases, perpendicular to each other.

Binding

In sewing, binding is used as both a noun and a verb to refer to *finishing* a seam or hem of a garment, usually by rolling or pressing then stitching on an edging or trim.

Blend

A blend is a fabric or yarn made up of more than one type of fibre.

Bobbin

A bobbin is a spindle or cylinder, with or without flanges, on which wire, yarn, thread or film is wound.

Bobbin lace

Bobbin lace is a delicate lace that uses wound spools of thread (the bobbins) to weave together the shapes in the lace.

Bombazine

Bombazine is a fabric originally made of silk or silk and wool, and now also made of cotton and wool or of wool alone. It is twilled or corded and used for dress-material.

Braid

To braid is to interweave or twine three or more separate strands of one or more materials in a diagonally overlapping pattern.

Broadcloth

Material of superior quality.

Brocade

Forming patterns in cloth with a supplementary weft.

C

Calico

Calico is a type of fabric made from unbleached, and often not fully processed, cotton. Also referred to a type of Printing.

Cambric

Cambric is a lightweight cotton cloth used as fabric for lace and needlework.

Camel's Hair

Camel's Hair is a natural fiber from the camel. Camel hair can produce a variety of different coarseness of yarn. This fiber is a novelty fiber spun by hand-spinners.

Canvas

Canvas is an extremely heavy-duty fabric used for making sails, tents, marquees, and other functions where sturdiness is required. It is also popularly used on fashion handbags.

Carding

Carding is the processing of brushing raw or washed fibers to prepare them as textiles by disentangling them and cleaning them. Used to be carried out by hand using cards with spikes. Later in mills using carding machines.

Carpet

A carpet is any loom-woven, felted textile or grass floor covering.

Cashmere

Cashmere is wool from the Cashmere goat.

Cellulose

Cellulose; this fiber processed to make cellophane and rayon, and more recently Modal, a textile derived from beechwood cellulose.

Cheesecloth

Cheesecloth is a loosewoven cotton cloth, such as is used in pressing cheese curds.

Chiffon

Chiffon is a sheer fabric made of silk or rayon.

Chino cloth

Chino cloth is a kind of twill fabric, usually made primarily from cotton.

Chintz

Chintz is calico cloth printed with flowers and other devices in different colors. It was originally of Eastern manufacture.

Coir

Coir is a coarse fibre extracted from the fibrous outer shell of a coconut.

Colorfast

Colors that will bleed or fade very easily from washing. Specifically, a textile's ability to maintain its color without running or fading.

Cord

Cord is twisted fibre, usually intermediate between rope and string. It is also used as a shortened form of corduroy.

Corduroy

Corduroy is a durable cloth.

Cotton

Cotton is a soft fibre that grows around the seeds of the cotton plant, a shrub native to the tropical and subtropical regions of both the Old World and the New World. The fibre is most often spun into thread and used to make a soft, breathable textile.

Crash

Crash is a rough fabric made from yarns that are usually undyed. The coarsest type is called Russian crash. Linen is generally used for the warp yarn, while linen and jute are used for the filler.

Crepe

Crepe is a silk fabric of a gauzy texture, having a peculiar crisp or crimpy appearance.

Crinoline

Crinoline was originally a stiff fabric with a weft of horse-hair and a warp of cotton or linen thread. The fabric first appeared around 1830.

Cross-stitch

Cross-stitch is a popular form of counted-thread embroidery in which X-shaped stitches are used to form a picture.

Crochet

The process of creating fabric from a length of cord, yarn, or thread with a hooked tool.

Cropping

raising the nap on cloth, then cutting it short to improve the finish – once done with heavy shears, later by machinery.

D

Damask

Damask is a fabric of silk, wool, linen, cotton, or synthetic fibers, with a pattern formed by weaving. Today, it generally denotes a linen texture richly figured in the weaving with flowers, fruit, forms of animal life, and other types of ornament.

Denim

Denim denotes a rugged cotton twill textile.

Dobby loom

Dobby loom is a loom in which each harness can be manipulated individually. This is in contrast to a treadle loom, where the harnesses are attached to a number of different treadles depending on the weave structure.

Double weave

Double weave is a type of advanced weave. It is done by interlacing two or more sets of warps with two or more sets of filling yarns.

Dyes

Dye is used to color fabric. There are two main types: Natural dyes and synthetic dyes. The process is called dyeing.

Dye lot

Dye lot is a number that identifies yarns dyed in the same vat at the same time. Subtle differences can appear between different batches of the same color yarn from the same manufacturer.

E

Eisengarn

Eisengarn, meaning "iron yarn" in English, is a light-reflecting, strong, waxed-cotton thread. It is made by soaking cotton threads in a starch, paraffin wax solution. The threads are then stretched and polished. The end result of the process is a lustrous, tear-resistant yarn which is extremely hardwearing

Embroidery

Embroidery is an ancient variety of decorative needlework in which designs and pictures are created by stitching strands of some material on to a layer of another material. See also: Machine embroidery.

Ends per inch (EPI)

Ends per inch like *Threads per inch* is a measure of the coarseness or fineness of fabric, displaying the number of (warp) threads per inch of woven fabric.

Epinglé fabric

A type of velvet fabric woven on a wire loom or épinglé loom. The épinglé velvet is notable in that both a loop pile and a cut pile can be integrated into the same fabric. The art of épinglé weaving in Europe originated from Lucca (Italy) and later came to Venice and Genua, which is where the term *Genua velvet* comes from.

Epinglé loom

A kind of weaving machine whereby steel rods are inserted in a top shed which is formed over the bottom shed in which the weft is inserted. The steel rods are inserted into the fabric every second or third pick by a separate mechanism that is synchronised with the weaving motion. The same mechanism also extracts the rods from the fabric . If the rod carries a cutting blade at the tip the warps that are woven over the rods are cut, creating a cut pile effect. In case the rod has no blade, then the warp ends from a loop pile. Alternating cut and loop wires create cut and loop pile in the fabric. This weaving technology is used for weaving velvets for furnishing and apparel applications. These fabrics are known as 'moquette' or "épinglé' fabrics. This kind of weaving machine is also used for weaving carpets where it is known as a 'Wilton loom'.

Eyelet

Grommets and eyelets are metal, plastic, or rubber rings that are inserted into a hole made through another material. They may be used to reinforce the hole, to shield something from the sharp edges of the hole, or both.

F

Felt

Felt is a non-woven cloth that is produced by matting, condensing and pressing fibers. The fibres form the structure of the fabric.

Fettling

cleaning to remove dirt left after other processes.

Finishing

Finishing refers to any process performed on yarn or fabric after weaving to improve the look, performance, or "hand" (feel) of the finished textile

Flannel

Flannel is a cloth that is commonly used to make clothing and bedsheets. It is usually made from either wool, wool and cotton, or wool and synthetic fabric.

Flax

Flax fiber is soft, lustrous and flexible. It is stronger than cotton fiber but less elastic. The best grades are used for linen fabrics such as damasks, lace and sheeting. Coarser grades are used for the manufacturing of twine and rope. Flex is a yarn which is the blend of mofre cotton & less linen . it is alternate quality for linen with linen look at cheaper price .

Frieze

Frieze is a coarse woollen cloth with a nap on one side, that was raised by scrubbing it to raise curls of fibre (French: frisé). In the 19th century rough cheap frieze was made of wool mixed with shoddy (see Shoddy).

Fulling

Fulling is a step in clothmaking which involves the cleansing of cloth (particularly wool) to get rid of oils, dirt, and other impurities.

Fustian

A type of heavy twilled woven cotton fabrics, chiefly prepared for menswear. Usually dyed in a dark shade. Declined in popularity from 1813, being replaced by harder wearing and better quality wool cloths.

G

Gabardine

Gabardine is a tough, tightly woven fabric often used to make suits, overcoats and trousers. The fibre used to make the fabric is traditionally worsted (a woolen yarn), but may also be cotton, synthetic or mixed. The fabric is smooth on one side and has a diagonally ribbed surface on the other.

Gauge

A gauge is a set number of rows per inch (in knitting) or the thread-count of a woven fabric that helps the knitter determine whether they have the right size knitting needles or a weaver if the cloth is tight enough.

Gante

Gante is a cloth made from cotton or tow warp and jute weft. It is largely used for bags for sugar and similar material, and has the appearance of a fine hessian cloth.

Gauze

Gauze is a very light, sheer, fine woven fabric.

Genova velvet

A type of velvet where in Jacquard patterns are woven into the ground fabric and where the pile is made of a combination of cut and uncut (loop) pile. This fabric is also known as Venetian velvet, or more generally, as épinglé velvet. In the actual terminology of furnishing fabrics it is mostly named with its French name "velours de Gênes". This kind of fabric is made on a wire loom or épinglé loom.

Gingham

Gingham is a fabric made from dyed cotton yarn.

Gossamer

A gossamer is a very light, sheer, gauze-like fabric, popular for white wedding dresses and decorations.

Grogram

Grogram is a coarse fabric of silk mixed with wool or with mohair and often stiffened with gum. It also is known as Grosgrain.

H

Healding

passing threads through ‘healds’ (eyelets halfway down wires held vertically by battens at top and bottom)

Heddle

Common component of a loom used to separate warp threads for passage of the weft. Commonly made of cord or wire.

Hem

To hem a piece of cloth (in sewing), a garment worker folds up a cut edge, folds it up again, and then sews it down. The process of hemming thus completely encloses the cut edge in cloth, so that it cannot ravel.

A hem is also the edge of cloth hemmed in this manner.

Hemp

The main uses of hemp fibre are rope, sacking, carpet, nets and webbing. Hemp is also being used in increasing quantities in paper manufacturing. The cellulose content is about 70%.

I

Ikat

Ikat is a style of weaving that uses a tie-dye process on either the warp or weft before the threads are woven to create a pattern or design. A **Double Ikat** is when both the warp *and* the weft are tie-dyed before weaving.

Interfacing

A type of material used on the unseen or "wrong" side of fabrics in sewing.

J

Jacquard

is a device used in the hand loom or power loom to produce the enlarged designs on the textile cloth or fabric.

Jacquard loom

The Jacquard loom was the first machine to use punched cards. It uses punched cards to control the pattern being woven. It is a form of dobby loom, where individual harnesses can be raised and lowered independently.

Jute

Jute is a long, soft, shiny plant fibre that can be spun into coarse, strong threads. Jute is one of the cheapest natural fibres, and is second only to cotton in amount produced and variety of uses. Jute fibres are composed primarily of the plant materials cellulose and lignin.

K

Knitting

Knitting is the Process of inter-looping of yarns or inter-meshing of loops

L

Lace

Lace-making is an ancient craft. A lace fabric is lightweight openwork fabric, patterned, either by machine or by hand, with open holes in the work. The holes can be formed via removal of threads or cloth from a previously woven fabric, but more often lace is built up from a single thread and the open spaces are created as part of the lace fabric.

Lawn

Lawn is a fine linen or cotton cloth.

Linen

Linen is a material made from the fibers of the flax plant. Linen produced in Ireland is called Irish linen. Linens are fabric household goods, such as pillowcases and towels.

Loden

Loden is water-resistant material for clothing made from sheep wool.

Loom

The Loom is a machine used for weaving fabric.

Lucet

Lucet is a method of cordmaking or braiding which is believed to date back to the Viking age. Lucet cord is square, strong, and slightly springy. It closely resembles knitted I-cord or the cord produced on a knitting spool. Lucet cord is formed by a series of loops, and will therefore unravel if cut.

M

Merino

Merino is the Spanish name for a breed of sheep, and hence applied to a woolen fabric.

Millinery

Millinery is women's hats and other articles sold by a milliner, or the profession or business of designing, making, or selling hats for women.

Mocado

Mockado is a woollen pile fabric made in imitation of silk velvet.

Mohair

Mohair is a silk-like fabric made from the hair of the Angora goat. It is durable, light and warm, although some people find it uncomfortably itchy.

Mungo

Fibrous woollen material generated from waste fabric, particularly tightly woven cloths and rags. See also: shoddy.

Muslin

Muslin is a type of finely woven cotton fabric, introduced to Europe from the Middle East in the 17th century. It was named for the city where it was first made, Mosul in what is now Iraq.

N

Nainsook

Nainsook is a fine, soft muslin fabric, often used to make babies clothing.

Nap

Nap is the raised surface of certain cloth, such as flannel.

Needlepoint

Needlepoint is a form of canvas work created on a mesh canvas. The stitching threads used may be wool, silk, or rarely cotton. Stitches may be plain, covering just one mesh intersection with a single orientation, or fancy, such as Bargello. Plain stitches, known as Tent stitches, may be worked as basketweave or half cross.

Nylon

Nylon is a synthetic polymer, a plastic. Nylon fibres are used to make many synthetic fabrics and women's stockings.

O

Oil cloth

Oil cloth was, traditionally, heavy cotton or linen cloth with a linseed oil coating: it was semi-waterproof.

Organdy

Organdy or organdie is the sheerest cotton cloth made. Combed yarns contribute to its appearance. Its sheerness and crispness are the result of an acid finish on greige (unbleached) lawn goods. Because of its stiffness and fiber content, it is very prone to wrinkling.

Organza

Organza is a thin, plain weave, sheer fabric traditionally made from silk, the continuous filament of silkworms. Nowadays, though many organzas are woven with synthetic filament fibers such as polyester or nylon, the most luxurious organzas are still woven in silk.

P

Paisley

Paisley is a droplet-shaped vegetal motif, similar to half of the T'ai Chi symbol, the Indian bodhi tree leaf, or the mango tree. The design originated in India and spread to Scotland when British soldiers brought home cashmere shawls.

""Pashmina""

""Pashmina"" is the fiber obtained from pasmina goats in kashmir region, used for winter clothes & shawls.

Patchwork

Patchwork is a form of needlework or craft that involves sewing together small pieces of fabric and stitching them together into a larger design, which is then usually quilted, or else tied together with pieces of yarn at regular intervals, a practice known as tying. Patchwork is traditionally 'pieced' by hand, but modern quiltmakers often use a sewing machine instead.

Percale

Percale refers to a closely woven, high thread count, cotton fabric often used for sheets and clothing.

Persian weave

Persian weave is a method of weave used in jewelry and other art forms.

Pile Wire

A steel rod which is inserted in between the base fabric and the pile ends in a pile fabric woven on a wire loom or épinglé loom. The height and thickness of the rod determine the size of the loop. A pile wire can be a simple rod – in which case the pile yarns will form a 'loop' pile. If the pile wire is equipped with a blade holder and cutting blade at the tip it will cut the pile loops during extraction thus producing cut pile.

Plaid

From a Scots language word meaning *blanket*, plaid usually referring to patterned woollen cloth otherwise known as tartan.

Plied yarn

Plied yarn is yarn that has been plied, with the process called plying.

Plush

Plush is a fabric having a cut nap or pile the same as fustian or velvet.

Polyester

Polyester is a synthetic fiber

Poplin

Poplin is a heavy, durable fabric that has a ribbed appearance. It is made with wool, cotton, silk, rayon, or any mixture of these. The ribs run across the fabric from selvage to selvage. They are formed by using coarse filling yarns in a plain weave.

Q

Qalamkari

Qalamkari is a type of hand-painted or block-printed textile, produced in various places in India.

Qiviut

Qiviut is the wool of the musk ox.

Quilt

Quilting is a method of sewing or tying two layers of cloth with a layer of insulating batting in between. A bed covering or similar large rectangular piece of quilting work is called a quilt.

R

Rayon

Rayon is a transparent fibre made of processed cellulose. Cellulose fibres from wood or cotton are dissolved in alkali to make a solution called viscose, which is

then extruded through a nozzle, or spinneret, into an acid bath to reconvert the viscose into cellulose. A similar process, using a slit instead of a hole, is used to make cellophane.

Rug

A rug is a form of carpet. It is usually smaller than a carpet.

S

Sateen

Sateen is a fabric formed with a satin weave where the floats are perpendicular to the selvage of the goods.

Satin

A Satin is a cloth that typically has a glossy surface and a dull back. It is formed by a sequence of broken twill floats in either the warp or weft system, which respectively identify the goods as either a satin or a sateen.

Satin weave

A satin is a broken twill weaving technique that forms floats on one side of the fabric. If a satin is woven with the floats parallel to the selvedge of the goods, the corresponding fabric is termed a "satin." If the floats are perpendicular to the selvedge of the goods, the fabric is termed a 'sateen.'"

Scribbling Mill

also "Slubbing Mill". A mill used for the preparation of raw fleece, etc. for spinning by a coarse form of carding.

Seam

A seam, in sewing, is the line where two pieces of fabric are held together by thread.

Seam ripper

A seam ripper is a small tool used for unpicking stitches.

Selvage or Selvedge

The woven edge portion of a fabric parallel to the warp is called selvage.

Serge

Serge is a type of twill fabric that has diagonal lines or ridges on both sides, made with a two-up, two-down weave. The worsted variety is used in making military uniforms, suits, great and trench coats. Its counterpart, silk serge, is used for linings. French serge is a softer, finer variety. The word is also used for a high quality woolen woven.

Serging

Serging is the binding off of an edge of cloth.

Sewing

Sewing is an ancient craft involving the stitching of cloth, leather, animal skins, furs, or other materials, using needle and thread. Its use is nearly universal among human populations and dates back to Paleolithic times (30,000 BC). Sewing predates the weaving of cloth.

Shag

Shag (fabric) is typically used to make a deep-pile carpets.

Shed

In weaving, the shed is the gap between yarns on a loom when one or more, but not all, of the harnesses are raised.

Sheer

Sheer is a semi-transparent and flimsy cloth.

Shoddy

Recycled or remanufactured wool. Historically generated from loosely woven materials. Benjamin Law invented shoddy and mungo, as such, in England in 1813. He was the first to organise, on a larger scale, the activity of taking old clothes and grinding them down into a fibrous state that could be re-spun into yarn. The shoddy industry was centred on the towns of Batley, Morley, Dewsbury and Ossett in West Yorkshire, and concentrated on the recovery of wool from rags. The importance of the industry can be gauged by the fact that even in 1860 the town of Batley was producing over 7,000 tonnes of shoddy. At the time there were 80 firms employing a total of 550 people sorting the rags. These were then sold to shoddy manufacturers of which there were about 130 in the West Riding. Shoddy is inferior to the original wool; "shoddy" has come to mean "of poor quality" in general (not related to clothing), and the original meaning is largely obsolete.

Shot

The opal effect achieved on a fabric by dyeing the warp and weft threads different colours. The yarns are dyed first and then woven. When looking at the fabric from various angles it appears to alter in colour, this is more obvious in lustrous fabrics and more so in certain types of weaves.

Shuttle

A shuttle in weaving is a device used with a loom that is thrown or passed back and forth between the threads of the warp to weave in the weft.

Silk

Silk is a natural protein fiber that can be woven into textiles. It is obtained from the cocoon of the silkworm larva, in the process known as sericulture, which kills the larvae. The shimmering appearance for which it is prized comes from the fibre's triangular prism-like structure, which allows silk cloth to refract incoming light at different angles.

Sisal

Sisal or sisal hemp is an agave *Agave sisalana* that yields a stiff fiber used in making rope. (The term may refer either to the plant or the fiber, depending on context.) It is not really a variety of hemp, but named so because hemp was for centuries a major source for fiber, so other fibers were sometimes named after it.

Sizing

size often used in the textile industry to stiffen stiffen various yarns at some stage of their processing. Vegetable size, produced from cereal sources, used to dress plant based yarns such as cotton, hemp etc. Animal size, produced from rendering down animal matter, used to dress animal based yarns such as wool, cotton, silk etc.

Skein

Skein is when a length of yarn is bundled in a loose roll rather than put on a cone (as you would purchase from store)- usually done if yarn is going to a dye vat or needs a treatment in a manufacturing/knitting mill environment.

Slubbing

after carding, drawing the fibres out further and joining them end to end, often with a slight twist.

Spinning

Spinning is the process of creating yarn (or thread, rope, cable) from various raw fibre materials.

Staple

Staple is the raw material, or its length and quality, of fibre from which textiles are made.

Stitch

A stitch is a single turn or loop of the thread or yarn in sewing, knitting and embroidery.

Stuff

Stuff is a coarse cloth, sometimes made with a linen warp and worsted weft.

Super

The Super grading system is used to grade the quality of wool fabric. The higher the number, the more yarn is packed in per square inch, therefore all things being equal a super 120s yarn is better than super 100s.

T

Tablet weaving

Tablet weaving is a process of weaving where tablets, also called 'cards', are used to create the shed that the weft is passed through. It is generally used to make narrow work such as belts or straps.

Tapestry

Tapestry is a form of textile art. It is woven by hand on a weaving-loom. The chain thread is the carrier in which the coloured striking thread is woven. In this way, a colourful pattern or image is created. Most weavers use a naturally based chain thread made out of linen or wool. The striking threads can be made out of silk, wool, gold or silver, but can also be made out of any form of textile.

Tatting

Tatting is a technique for handcrafting lace that can be documented approximately to the early 19th century.

Teasel

dried head of the teasel plant, it's small hooks are ideal for raising the nap without damaging the cloth.

Tenterhooks

hooks on which wet cloth was fastened to stretch and dry it. Earliest Tentering done in the fields, later done in drying sheds.

Terry cloth

Terry cloth is a type of cloth with loops sticking out. Most bath towels are examples of Terry cloth.

Threads per inch (TPI)

Threads per inch is the measurement of the number of threads per inch of material.

Thread count

The thread count is the number of warp threads per inch plus the number of weft threads.

Tulle

Tulle is a netting, which is often starched, made of various fibers, including silk, nylon, and rayon, that is most commonly used for veils, gowns (particularly wedding gowns) and ballet tutus.

Tweed

Tweed is a type of fabric using the twill weave.

Twill tape

Twill tape is a flat twill-woven ribbon of cotton, linen, polyester, or wool.

Twill weave

Twill is a type of fabric woven with a pattern of diagonal parallel ribs. It is made by passing the weft threads over one warp thread and then under two or more warp threads. Examples of twill fabric are gabardine, tweed and serge.

V

Velour

Velour is a textile, a knitted counterpart of velvet.

It combines the stretchy properties of knits such as spandex with the rich appearance and feel of velvet.

Velvet

Velvet is a type of tufted fabric in which the cut threads are very evenly distributed, with a short dense pile, giving it its distinct feel. Velvet can be made from any fiber. It is woven on a special loom that weaves two piece of velvet at the same time. The two pieces are then cut apart and the two lengths of fabric are wound on separate take-up rolls.

Velveteen

Velveteen is a cotton cloth made in imitation of velvet. The term is sometimes applied to a mixture of silk and cotton. Some velveteens are a kind of fustian, having a rib of velvet pile alternating with a plain depression. The velveteen, trade varies a good deal with the fashions that control the production of velvet.

Viscose

Viscose is an artificial cellulose-based polymer.

W

Warp

The warp is the set of lengthwise threads attached to a loom before weaving begins, and through which the weft is woven.

Weaving

Weaving is an ancient textile art and craft that involves placing two sets of threads or yarn made of fibre called the warp and weft of the loom and turning them into cloth. This cloth can be plain (in one color or a simple pattern), or it can be woven in decorative or artistic designs, including tapestries.

Weft

The weft is the yarn that is woven back and forth through the warp to make cloth.

Wilton Carpet

Wilton carpet is produced on a specific type of weaving machine called wire loom. Wilton carpets are pile carpets whereby the pile is formed by inserting steel rods in the pile warps of the fabric. After extraction of the rods the pile is looped (in case straight wires have been used) or cut (in case cutting wires are used). Wilton carpet is generally considered as high quality and is used for heavy duty applications. It is named after Wilton, Wiltshire.

Wire loom

Weaving machine for pile fabrics or velvets whereby the pile is made by weaving steel rods or wires into the fabrics. When the wires are extracted the warp ends that have been woven over the wires remain as loops on top of the fabric or will form cut pile if the wire is equipped with a cutting blade.

Witches

The Witch Dobby, an addition to the hand loom and revolutionised ‘figure weaving’ in the locality. An early 19th century device used by hand-loom weavers to facilitate their more complex ‘treadle tramping’ patterns, whereby the action of one main treadle could be transferred by mechanical means to activate any other pre-selected treadle and heald. A forerunner to the Jacquard and a very early form of mechanical computer, there is strong evidence of its development taking place in Skelmanthorpe (Wilkinsons of Gully Flatts). It’s introduction brought growth and prosperity to the Upper Dearne Valley.

Woof

The woof is the same thing as the weft.

Worsted fabric

Worsted is the name of a yarn and cloth usually made from wool. The yarn is well twisted and spun of long staple wool (though nowadays also medium and short fibres are used). The wool is combed so that the fibres lie parallel.

Woven fabric

A woven fabric is a cloth formed by weaving. It only stretches in the bias directions (between the warp and weft directions), unless the threads are elastic. Woven cloth usually frays at the edges, unless measures are taken to counter this, such as the use of pinking shears or hemming.

Y

Yarn

Yarn is a long continuous length of interlocked fibers, suitable for use in the production of textiles, sewing, crocheting, knitting, weaving and ropemaking. Yarn can be made from any number of synthetic or natural fibers.

Z

Zibeline

Zibeline is a thick, soft fabric with a long nap.

Glossary References

- Beech, S.R.; Farnfield, C.A.; Whorton, P.; et al., eds. (June 1986) [1954]. Textile Terms and Definitions (8th ed.). Manchester: The Textile Institute. ISBN 0-900739-82-7.
- Jenkins, David, ed. (2003). The Cambridge History of Western Textiles. Cambridge, UK: Cambridge University Press. ISBN 0-521-34107-8.
- Picken, Mary Brooks (1957). The Fashion Dictionary. Funk and Wagnalls.
- Montgomery, Florence M. (2007). Textiles in America, 1650-1870: a dictionary based on original documents (2nd ed.). W. W. Norton. p. 295. ISBN 0-393-73224-X.
- "Dictionary of Traded Goods and Commodities, 1550-1820". 2007. Retrieved 11 April 2010..