# ONE WEAVER'S JOURNEY: AN EXPLORATION OF PRE-INDUSTRIAL AGE TEXTILE TOOLS AND FIBERS

#### A PRESENTATION TO THE GOLDEN GATE WEAVERS

Cathy M. Koos January 2013

#### INTRODUCTION

Ever since humans began their upright stroll through time, they have manipulated fur, fleece and plant fibers in increasingly successful efforts to clothe themselves, adorn their bodies, make tools and carry goods. Probably first noticing that a clump of fur caught on a branch twisted and became stronger, they began to twist the fur or fleece into cordage using the flat of the hand on the thigh, back and forth, back and forth. Rotted stalks of bast plants like nettles offered up long strands of fiber that could similarly be twisted into cordage or thread.

As Anita Osterhaug of "Weaving Today" tell us, "If you want to know a culture, look at its cloth. The materials and tools speak to us of place, and the designs handed down the generations tell us the stories of a people."

I have always been interested in the how-to part of history: old tools; old books; strange and mysterious implements devised by creative individuals throughout time to do a job or streamline their work. I am especially curious about those tools of everyday life that created textiles. Particularly fascinating to me are the old weaving drafts designed in an era before iPad, WeaveIt software, or even printed graph paper. The creators of those complex designs, if they lived today, would probably be engineers.

When I was awarded this research scholarship from the Golden Gate Weavers Guild, I leaped at the opportunity to delve further and satisfy my curiosity at least about recent textile events of the early American colonists.

## A STEP BACK IN TIME

Let's first take a little step back in time to set the stage for those pre-Industrial Colonial crafters.

Archaeological evidence shows a surge of various crafts in Europe as long ago as 40,000 BCE during the Upper Paleolithic period. The ice sheets were receding, and humans were making tools such as chisels and awls. One neatly spun and plied piece of cordage dated about 15,000 BCE has survived, displaying knowledge of fiber manipulation. About 40,000 years ago needles became a common tool, along with shell and bone beads with drilled holes and evidence of sewing found in burial sites. Metals produced during the Bronze Age around 3000 BC prompted another surge in crafting.

Manipulation of fibers and creation of textiles has long been women's work even back to ancient times. This likely evolved because textiles like cordage and baskets were needed by the community, and these items could be produced by the women in the community concurrent with their child-rearing and food production responsibilities. Cordage, thread making, and baskets could be easily set aside and returned to as other chores permitted. Thus, textile production remained mainly women's occupations all the way through to medieval times when the artisan guilds arose and men began to take over the craft.

In the far north, bark fibers also produced cordage for hunting and fishing nets. According to Dr. Elizabeth Wayland Barber [<u>Women's Work: The First 20,000</u> <u>Years</u>, W.W. Norton & Company, New York, 1944], the creation of string is probably the most important ancient invention.

In addition to animal fibers, cordage was also spun from the many bast plants found in the wild, including flax, hemp, nettle, and the stringy inner layers of cedar bark.

Cordage was originally spun on the thigh. If a piece of cord was needed while travelling, a few feet of cord could be quickly thigh-spun from readily available plant materials by anyone in the community. During resting times, various lengths and grists of cordage were produced to have available for a variety of needs.

Early spindle spinning consisted of rotating the spindle with one hand and feeding the fiber with the other, spinning and wrapping the product on the stick or spindle. About 10,000 years ago, introduction of the drop spindle with a whorl greatly reduced wobble and increased production. Easily set down, a drop spindle could be operated while walking or in later times, riding an animal. The addition of a distaff allowed the spinner to carry larger quantities of prepared raw fiber, again increasing production.

Early weaving began to take place using a technique like darning, and it took fully several thousand more years to develop lifting of multiple warp threads at the same time – about 6000 BC. Likely first were band looms, securing one length of warp threads around a nearby tree or post and the other end around the weaver's waist. We still see these looms today as backstrap looms. These looms were really only capable of weaving narrower textiles like bands.



[Backstrap loom, Smithsonian Institute]

Next were horizontal ground looms, but these took up valuable floor space and so wall-mounted warp-weighted looms came on scene. Early looms did not survive, but evidence abounds in the form of clay or stone loom weights and loom post holes in ancient dwellings.



[University of Michigan, Kelsey Gallery]

We also see evidence of looms on wall paintings and pottery, giving us a good visual idea of their appearance.



[Egyptian weaving shop, 12<sup>th</sup> Dynasty, Metropolitan Museum of Art]

First showing up in Hungary, these looms spread north and west across Europe and into Egypt. Nearly every dwelling had a wall loom. By 4000 BC, Hungary remained a textile innovation hub, adding bags and baskets, as well as woven pattern designs like stripes, checks, triangles, and fancy edges. Weaving had gone beyond function and utility to an item pleasing to the eye.



[Greek vase, ca. 560 B.C., Metropolitan Museum of Art]

In the late Bronze Age, back around 800 B.C., the Celts were residing in today's Austria, southern Germany and Hungary, attracted by the salt and metal ore mines. This was the beginning of the Hallstatt culture. In addition to mining and trade, they were already gifted weavers, creating early twill textiles. This population later fanned out westward into Europe and Britain, taking their mining and textile skills with them.

While colored threads show up around 4000 BC, colored cloth and intricate woven patterns of spirals, hearts, and lozenges first appeared on textiles from the island of Myrtos and Crete in about 2000 BC. resulting in regional folk costumes.

In Mediterranean countries, pottery bowls appear with a loop in the base of the bowl. Research has shown that these are linen-wetting bowls, with the loop being used as a guide for the fibers.



[Rosicrucian Museum, San Jose, CA]

Sprang also appears to surface in the Bronze Age, similar to netting and predating knitting. The oldest surviving piece, found in a Norwegian bog, dates to about 1400 BC. Worked on a rectangular frame, the warp threads are manipulated by interlinking, like children's Cat's Cradle.



Early on, fibers were combed, with carding only making an appearance in the Middle Ages, using teasels set on boards. Flax, hemp and nettle were the primary bast fibers used, using streams for retting. Tools such as brakes to beat the stems and hackles have been uncovered in Swiss lakebeds, giving evidence of skill in processing the fibers.

By inspecting various Bronze Age woven pieces that have survived, it is apparent that women helped each other with their weaving, evidenced by textiles with crossed threads and row shifts. Women are still working in pairs on warp-weighted looms in Scandinavia.

About 8000 years ago, nomads began to domesticate and raise sheep for both fiber and meat.

Spinning wheels make their first appearance in the early Middle Ages, possibly inspired by travelers to China or India, and drop spindling became an away-fromhome endeavor, while heavier production spinning occurred in the home on spinning wheels. Home textile production came into full swing, with each cottage creating its own threads and yarn. It was estimated that 10 hours of spinning production would be consumed in one hour of weaving. In order to keep the weaver supplied, spinning of one sort or another occupied any spare time a household member had, usually the women.

#### MEDIEVAL ESTATES

As medieval times approached, towns became built up and demand for textiles both utilitarian and fancy began to outpace supplies. The Black Death altered social structures both in rural areas and towns. Crafts and tradespeople – usually men -- began to set up shops in towns. As the towns grew, business-specific districts would evolve, known as medieval estates or guilds. While men pursued the other trades, frequently women were still weavers and dyers, even within the guilds. These guilds were both professional organizations and social groups, too. The entire community of a specific trade such as weavers would be embraced and protected – the professional as well as their family members, even educating the children of guild members. In addition to security, there were codes, rules, secrecy and regulations bound up in these guilds and they became very powerful politically and socially. Guilds ruled the European textile trade from about the 13<sup>th</sup> to 18<sup>th</sup> centuries.



Coat of Arms Wool Weavers Guild, Italy [Wikipedia]

For the weaver guilds, specific drafts or patterns were developed within each guild and these drafts were closely guarded, handed down from generation to generation. By the end of the 18<sup>th</sup> century, the guilds fell out of favor and the trades became more independent.

## THE COLONIAL CRAFTSMEN AND WOMEN

I grew up in southeastern Pennsylvania, right in the heart of Colonial America. Think Betsy Ross, the Liberty Bell, Independence Hall and Ben Franklin.

As Europeans immigrated to Colonial America beginning in the late 1600's, many were drawn to Pennsylvania, keen to take part in William Penn's Great Experiment based on ideas of equality and tolerance, public good, private enterprise and religious freedom. By coincidence, Penn's community attracted not only farmers, but many skilled artisans to the new colony, bringing their skills and knowledge to the new land. Huguenots fleeing religious persecution in France; Anabaptist-Mennonites from Switzerland, Germany and the low counties; as well as Moravians, and Schwenkfelders from Germany and Silesia came to Penn's Woods, liked what they saw, and stayed on.

The Shaker movement emigrated from England right before the Revolution and took up residence further north in New England, where they crafted simple clean-lined furniture, weavings, and basketry.

Pennsylvania was also attractive to loyalists of King Louis XVI and Marie Antoinette escaping the bloody revolution, and the small planned town of French Azilum was

created along the Susquehanna River. Originally intended for Marie Antoinette and her followers, Marie never arrived, facing the guillotine instead. Most of the refugees returned to France when Napoleon Bonaparte came into power and offered repatriation. The Queen's Azilum is now a museum with some lovely period coverlets and textiles.



French Azilum, Towanda, PA, [C Koos, 2012]

Often, to save packing space when coming to the colonies, women immigrants would only bring the flyer and maiden assembly of their spinning wheel, knowing that colonial woodworking craftsmen could reproduce the wheel, table and footman assembly once they arrived in the new land.

In a sense, due to their isolation from Europe, the new colonists went back in time to textile production in the home rather than in the towns, spinning fiber during every spare moment and building immense timbered frame looms in the home. Then as towns built up and sprawled out, these timber frame looms evolved into a more commercial use, with spinners delivering their yarns to be woven into household goods and lengths of cloth that would in turn be sewn into garments back at home.



ca. 1840 Barn Frame Loom, Orwell, PA [C Koos, 2012]

Then as the colonies increased in population, Britain began importing almost all the cloth used by the colonists. Soon, Britain disallowed any wool cloth production in the colonies, in an effort to salvage their wool cloth industry in England. Raw wool produced in the colonies was exported to Britain, spun and woven into cloth, and then exported back to the colonies for sale.

There is some contradiction between informants as to how prevalent itinerant weavers were in the colonial era, as well as contradictions on other aspects of colonial textile production. By the 18<sup>th</sup> century, some women still wove at home, but weaving was becoming a male professional trade, with boys apprenticing at a young age. According to Les Spencer of the Home Textile Tool Museum (HTTM) in Orwell, Pennsylvania, there was a contingent of men who were itinerant weavers, dismantling their looms and hauling them in wagons from farm to farm, village to village, staying with a family for several weeks while weaving goods for the household.

However, later interviews I conducted with both Marjie Thompson, of Complex Weavers, and Bob Woods of the Goschenhoppen Historians Museum (GHM) in Green Lane, Pennsylvania, contradict the itinerant nature of the trade. Thompson and Woods concurred that men became the primary weavers in the professional trade, but very little was done on an itinerant basis in southeast Pennsylvania partly because there were more villages, but mainly because of the difficulty in dismantling these large looms with their massive beams. Both informants state that weaving became a village trade and local folk would bring their home-spun yarns to the weaver.

Further research at the library of the Pennsylvania German Cultural Heritage Center at Kutztown University reflects both itinerant and village-based weaving businesses. It is possible that a small contingent of itinerants served those homesteading pioneers who moved further west. The pioneer women would still weave their basic household textiles, but the itinerant weaver, often professionally trained in Europe, would come with his multi-harness or draw loom, his book of samples and fancy patterns. After poring over the choices, the weaver would settle in "for the season" and create coverlets and other fancy textiles with names, dates and pictorial designs. There is much contradiction, and this deserves further investigation.

Village-based weaving shops increased as the population and demand for textiles increased. To help fulfill this increased demand, shopkeepers took advantage of the wave of indentured white servants coming to the colonies. Unable to pay their own

way but desiring a life in the colonies, many young men and some women had their fare paid by shopkeepers, tradesmen and farmers, and in exchange they worked off their passage for a set number of years.

Well known for carrying on their grandparents' early 1800s weaving business are the Weaver Roses of Rhode Island. William (1839 – 1913) and his sister Elsie collected and used almost 250 old drafts – many recorded on scraps of paper and even pieces of wood. During the arts and crafts revival, Marguerite Davison of southeastern Pennsylvania subsequently collected many of Roses' drafts and salvaged other early American drafts and published them in 1944 in an effort to keep these drafts from vanishing along with the old weavers. Davison's book, <u>A</u> <u>Handweaver's Pattern Book</u> [Marguerite P. Davison, Publisher, Chadds Ford, PA] is still the go-to reference for Colonial drafts.

Fiber dyeing later moved away from the households and the village weaver would also do most of the dyeing. According to the Les Spencer (HTTM), indigo was likely imported, but the source of madder is unclear. Colonial Williamsburg contradicts that assertion, stating indigo came from the Carolinas. During early colonial days, in addition to wild plants harvested for dye, colonial and pioneer households grew patches of woad, bulls blood beets, onions, and coreopsis. Bob Woods (GHM) tells us that red would not have been in local use in southeastern Pennsylvania. More likely colors would have been blues, browns and greens. This lack of red may have been a cultural choice or a lack of available dye stuff.

### **BAST AND ANIMAL FIBERS**

Nettles were heavily used by the earliest Neolithic weavers and spinners of cordage, but by the time the colonists began to settle America, there were other bast fibers that were easier to grow and use, such as flax and hemp.

While dogbane is another bast fiber producer, it was generally only used as a last resort by early settlers because of its toxicity to livestock. Dogbane's biggest users were the Native People.

Hemp was a critical fiber crop in the colonies, grown from New England down into Maryland. Every colonial household had a hemp patch in addition to their flax fields. Used mainly for coarser fibers, hemp was turned into rope, sails and caulking for ships and farms. Britain required its colonies to grow hemp and British ships carried hemp seed with them in order to have hemp available for repairs all over the world. With care, hemp was also spun and woven into finer cloth and sources tell us that the first American flags were made from the strongest fiber available: hemp.

In an effort to reduce the need to import silk from Asia, early attempts at silk cultivation in Virginia failed – silk was a more difficult, while tobacco was easier and netted more profit. So even though King James I tried to compel the plantations to cultivate mulberry trees, tobacco prevailed. Silk production in Georgia gave way to King Cotton by the mid-1750s. Other attempts in the Carolinas, Pennsylvania, and New England produced novelty quantities at best.

In addition to hemp, flax became the staple bast fiber in the colonies. Each household grew sufficient flax to net enough fiber for the family, generally about ¼ acre per household member. The Home Textile Museum stated that flax was only processed by the men, but Goschenhoppen staff stated that flax preparation was a family affair, each member having a role in the processing.

Colonists processed flax into linen as had their ancestors in Europe, Britain and Ireland. Seeds were planted close together in early spring, lightly raked and then harvested about a month after flowering. The entire plant was pulled for harvesting in order to maximize fiber length. The stalks were grasped by the handful and rippled or pulled through a threshing tool to remove the seeds. Seeds were saved for next year's crop, cattle feed, and pressed for linseed oil. Then the stalks were left to ret or rot – either using dew in the field for a month or submerging the stalks in a stream or shallow pond for up to two weeks.





Home Textile Tool Museum, Orwell, PA [C Koos, 2012]

Once thoroughly retted and dried, the stalks were first beat with a flail, and then placed in a wooden brake machine to further break up the wood outer stalk. From there, a wood scutching knife was used to further peel away or knock off the outer stalk, revealing the fibers inside.

The next tool was the heckle, hetchell or hackle – a wood base with a bed of long, sharp spikes protruding. A handful of fiber was drawn through the spikes multiple times to further clean the fibers of woody stalk and orient the strands. Several hackles would be used progressing from a coarse spacing to a closer spacing of spikes, thoroughly cleaning and orienting the longer linen fibers from the shorter tow fibers. Tow was used for coarser woven cloth or for stuff items. Tow fabric was differentiated from linen by ends per inch.





Wedding gift, dated 1766, Goschenhoppen Historians Folk Life Museum, Green Lane, Pennsylvania [C Koos, 2012]

Cotton from the South flooded the markets in the early 1800s and flax production dropped off because cotton production used cheaper slave labor. Then the Civil War halted cotton production and flax surged again. By the late 1800s with the end of the war, cotton has once again taken over and large-scale flax production completely died off.

Other than silk, the only animal fiber used in colonial times was wool. According to an interview of members of the Liberty Bell Encampment at the Rising Sun Inn, during colonial times sheep were sheared and raw wool shipped to England for processing and return as whole cloth, thus discouraging the colonial weaving industry and making the colonies more dependent on England. While many textiles were imported from England and other European countries to the colonies, once the Revolutionary War erupted, all textiles were produced in America.

During the Revolution, British warships lay just off the coast, effectively cutting off any cargo coming from France, Spain and other sympathizers. The need for cloth and thread for uniforms was so great that tailoring shortcuts were employed. Woolen cloth was woven at 16 ends per inch rather than 24 or 32. False cuffs, false welt pockets and shorter coats required less fabric, so colonial weavers and tailors could produce more uniforms with less cloth. Many colonists began to weave again, as it was considered their patriotic duty.

#### LOOMS OF THE PRE-INDUSTRIAL COLONIES

In visits to various textile and colonial history museums, I was reminded over and over again that weaving looms have really not changed that much since those Bronze Age backstrap, post, and warp-weighted looms. Weavers way back in time knew that tension had to be placed on warp threads and used pretty ingenious methods to achieve that tension – posts, clay weights, even their own toes. Eventually these weights were replaced by back beams to keep the warp under tension.

Even yet today, we still weave by lifting one or more tensioned warp threads, inserting a weft thread and repeating to produce a cloth matrix.

Heavy, dense hardwood was and still is the material of choice for construction. Breast beam, warp beam, beater, lamm, heddles, reed. A weaver of today could sit down at a Bronze Age loom and have it warped and operational in no time. And their Bronze Age counterparts would immediately recognize the working parts of a contemporary loom.

At the Home Textile Tool Museum, there was a vast collection of American-made looms dating as far back as 1805 and another loom undated but estimated to be late 1700s. Mr. Spencer related that the Ralphs, now deceased, original founders of HTTM would often return home from town to find a pile of old loom parts stacked on their front porch – no note attached. Mr. Ralph was well known for his skill in repairing and reproducing missing parts on spinning wheels, looms, and old textile tools. The aforementioned pile of parts actually netted several frame looms.



Home Textile Tool Museum: Southeastern Pennsylvania German Linen Loom, 2-shaft, ca. 1805 [C Koos, 2012]



Close-up detail of upper beams with date inscribed [C Koos, 2012]

Colonial era looms were commonly 2- or 4-shaft, counter-balanced barn frame looms, built of immense pegged timbers; and usually of such a size that the weaver sat inside the loom frame with the weaver's bench an integral part of the framework. Because of the size, the loom often dominated the room or was relegated to the loft or the barn. In Ireland, England and Europe, weavers often built the cottage around the loom, frequently excavating the floor to accommodate the treadles.

While the colonial home weavers used counter-balanced frame looms, it is likely that the village and itinerant weavers probably utilized drawlooms capable of more complex pattern weaving. The village weavers, especially, were usually professionally trained in Europe and would have been more likely to have the draw loom equipment and skills. Dobby looms arrived on the scene around 1843, but drawlooms were common from around 1400.

Amongst the collection at HTTM is a Newcomb Commercial Rug Loom, dated 1870 from Davenport, Iowa. This was a popular loom for a very short period of time. The weaver activated the spring action shuttle with a foot pedal. Using child labor, the child would cut cloth strips for the rug and place the strips in a tube, which were handed off to the weaver. The spring-action of the shuttle was often unpredictable, frequently seriously injuring or killing the child assistant. Because of this, the loom quickly fell out of favor.



Newcomb Loom, Home Textile Tool Museum, Orwell Pennsylvania [C Koos, 2012]



Close-up Newcomb Loom, rag cutting tool, paper tubes to convey rags to weaver – Home Textile Tool Museum, Orwell, Pennsylvania [C Koos, 2012]

I was told that all the textiles on display at the HTTM could have been made with a loom at the museum; however, there are Jacquard coverlets displayed but no Jacquard looms. Jacquard looms, invented in 1801, arrived in America around 1830. Using a series of punched paper cards, this invention expanded a weaver's ability to create complex weave structures. The example in this photo is from the Irish Linen Center in Lisburn, Northern Ireland. It is still in use and the weavers frequently create fancy linens for Queen Elizabeth's household.



photo courtesy Irish Linen Center, Lisburn, Northern Ireland

Small tape looms wove tapes for a vast assortment of household and farm needs such as waistbands, hats, and garters. Weaving tapes was labor intensive and so used for higher value, longer use items and not for grain or seed bag closures. Tape looms were used to create a variety of colorful patterns and were generally used by the children.



Tape Loom, Goschenhoppen Historians Folk Life Museum [C Koos, 2012]

While the Industrial Revolution occurred between 1820 and 1840, many later immigrants coming to America brought pre-Industrial skills with them. My father, now 91, grew up in Daisytown, a coal patch of western Pennsylvania. Coal patches were impoverished company towns where the homes were generally tar paper shacks. Most of the miners, including my grandparents, were recent immigrants from Slovakia, Hungary and other eastern European counties. One of 11 children, Dad remembers Grandma scrubbing the bare wood floors on mornings so cold that the scrub water frozen on the floors.

To warm the floors in these houses in the 1920s, the women of the community would gather and make rugs. Using a huge rigid heddle similar to one used on an Appalachian barn loom, they would fasten the warp threads to adjoining porch railings, stretching the warp the distance between the houses. Some women cut cloth strips for the rugs and others rolled the strips into balls. Operating the heddle was a two-woman operation and a third rolled the ball of weft strips down the shed. In this way, the women wove communally as they had in old times, sharing the labor and providing a social outlet.



photo courtesy <u>A Daisy of a Town</u>

## **SPINNING WHEELS**

Investigation of spinning wheels produced the most variety. With looms and flax tools in the large barns, the Home Textile Tool Museum devotes the entire downstairs of their 1823 Federal-era home to a vast array of spinning devices, and most of the wheels are still in working order. Unusual in the collection was the pendulum wheel – a uniquely American invention.



Pendulum Wheel, 1864 Wisconsin, Home Textile Tool Museum, Orwell, PA [C Koos, 2012]

The gossip wheel had two spindles with a common wheel in the middle and two seats; spinners sat on either side of the wheel facing each other. A lot of coordination and similar spinning style and ability was required for two people to successfully spin.



Gossip Wheel, Home Textile Tool Museum, Orwell, Pennsylvania [C Koos Breazeal, 2012]

Another wheel with a sad story was the two-handed wheel. So named, according to HTTM docent Les Spencer, because these wheels were employed by children in orphanages. The child's spinning production could be doubled if he or she spun with both hands, each hand feeding fiber into the two spindles. The acceleration wheel was cast iron, giving the tool both added weight and longevity.



Dual Spindle Flax Wheel (left and middle), New England 1790; Home Textile Tool Museum, Orwell, PA [C Koos, 2012]

There were novelty wheels, also, such as this spinning wheel chair. According to HTTM, it was pegged together as a chair, easily dismantled and could be put back together as a spinning wheel. However, an article in Yankee Magazine contradicts that statement, saying that at the advent of the Industrial Revolution, old wheels were made into chairs solely for the novelty of being a chair as well as a desire to connect with America's Puritan past.



Chair Wheel, Home Textile Tool Museum, Orwell, Pennsylvania [C Koos, 2012]

At the Goschenhoppen Museum, their spinning wheel collection reflects the more conservative "Plain Dutch" population with minimal decorations on the wheels. However, only 30 to 40 miles further north in the "Fancy Dutch" Reading area the spinning wheels were quite colorful and decorative. In this picture note the uncommon support strut extending from the wheel to the leg. This wheel is signed "Sellers," likely from a wheelmaker in the Sellersville area.



Goschenhoppen Historians Folk Life Museum [C Koos, 2012]

## **OTHER TEXTILE TOOLS**

Pegged boards of one sort or another to measure out warp have been in continuous use for millennia. Relative recent innovative tools for measuring range from niddy noddys to click or clock wheels to warping wheels.

Farmers have always needed hats to protect themselves from the sun, so they began braiding the cast-off stalks from rye grain production. Needing to flatten those braids uniformly to make the hats, a braid crusher was developed. Displayed at the Goschenhoppen Historians Museum was a braid crushing device that is still in use during their summer reenactment events. The two styles displayed, a man's and a lady's hat, are styles still used today. HTTM had one early colonial loom reed on display that was made with actual reeds, held in place with pitch. As more metalwork was produced in the colonies, the reeds were replaced with iron.



Goschenhoppen Historians Folk Life Museum [C Koos, 2012]

This click or clock wheel measures a capacity of 300 yards. Most commonly, these wheels measured increments of two yards, some with a variant of 2.5 yards. This particular clock wheel has a knuckle on one arm that flips and bends over to allow the yarn to slip off the wheel.

Hatchels or hackles for processing linen were considered a valuable enough tool that they were often given as an engagement or wedding gift. In the Goschenhoppen Folk Museum collection are several with dates and initials embossed, signifying a wedding gift.



Goschenhoppen Historians [C Koos, 2012]

Fullers Teasel (Dipsacus fullonum sativus) was brought from Europe where it had been used for centuries as an early carding tool. Used until the late 1880s, it is now considered an invasive species. Hand carding tools were first made using teasels attached to wood, then wire teeth were developed in the latter half of the 19th century. Larger scale drum carders were developed early by the mid-1700s.

## HOUSEHOLD TEXTILES

Clothing needs were simple in the colonies. Women wore a plain linen shift under their outer wear and that same garment served as sleep attire.



Roadside teasel patch near Orwell, PA [C Koos, 2012]

As the colonies became more settled and weaving went beyond the basic necessities, overshot coverlets came to replace the common feather ticking as a bed topper. As today, the coverlet and pillow cases would match.



Show Towel, Goschenhoppen Historians Folk Life Museum [C Koos Breazeal, 2012]

Much like the fancy finger towels we haul out of the closet during the holidays, show towels or handtucher were another fancy household item where the housewife could display her textile skills. Usually hung on the back of the door of the stove room, these towels were woven in linen and then either worked in embroidery, often in turkey red, or other needlework techniques such as hardanger or pulled thread, and fringed with thrums from the weaver.

Tow grain bags were important to the farmer. Woven either long and narrow, then folded and seamed; or woven wide-wise, folded and seamed. Because the farmer wanted to ensure his grain came back from the mill, the bags were stenciled simply with the farmer's initials and sometimes included more fanciful designs like leaves or flowers.

Early settlers covered their beds with simple woven bed rugs – a duvet-like bed cover which was filled with down. Coverlets began to appear in the 1760s and continued to be popular through the early 1900s. Coverlets were produced using a multi-shaft loom or a loom controlled with a loom head in order to produce figures and fancy patterns similar to patterns later produced by Jacquard looms.



Homespun linen garments and bed linens Goschenhoppen Historians Folk Life Museum [C Koos, 2012]

### IN CONCLUSION...

There is so much more to find out, that I believe I shall be on this journey for quite some time. But then again, life is in the journey, not the destination.

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Forgotten Pennsylvania Textiles of the 18th and 19th Centuries

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