

AMERICAN TEXTILES -- 17th CENTURY

History books tell us that the Industrial Revolution began in England in the textile industry with the invention in 1770 of the 'spinning jenny' and in 1785 with a mechanical loom. They tell us that Cartwrights mechanical loom was the first application of James watt's steam engine. Then the books usually go on to discuss coal mines, pig iron, smoking chimneys and locomotives. What the history books do not mention is why the Industrial Revolution began with the textile industry and why it had such rapid and far-reaching effects.

At that time -- the end of the 18th century -- there was only one industry in world-wide existence: textiles. The Industrial Revolution could not have begun in another industry -- there was no other industry. "Manufactory" originally meant a place where textile were made; a building with a collection of hand-loom where the owner hired the weavers and supplied the yarn for making cloth. There was only this one kind of product used by essentially every person in the world, and only the one kind of goods transported commercially everywhere in the world: textiles.

This had been the situation for many centuries. Although spices, drugs, precious stones and metals have been, in most accounts, the rationale for the establishment of trade routes, those items never held the place that textiles and dyes held on the desert caravans, the Silk Route, or the ships to the Indies and the Americas. For example, around the 1550's in Mexico, the cargoes of the incoming Spanish ships were made up mostly -- 60 to 80 percent -- of cloth, sewing supplies, and clothing.(1) Cloth was definitely the 'biggest game in town.

Nowadays hand-woven cloth is special - a rarity. Before 1785, however, all the fabrics in the world were handwoven. The velvets and brocades of Renaissance Italy, the chintzes of India, the toiles of France, the English copperplate prints, -- all were hand-woven. All fabric in America, whether imported or domestic, plain or printed, was hand-woven before the beginning of the 19th century.

Textiles -- baskets, mats, rope and twine -- were the first human manufacture to follow stone implements. From time immemorial, textiles have been used for shelter, for wrapping and carrying, for clothing and adornment. An interest in textiles has been universal almost from the beginning of human existence.

When humans became sea-faring, textiles caught the wind to propel the ships. The importance of ships as consumers as well as carriers of textiles can be estimated by the continual increase of ship building. By 1720 an average of 90 ships per year were being built in colonial New England -- each fitted out with hundreds of yards of hand woven canvas. (2)

To the cloth-producing nations of Europe, American colonies represented expanding markets, and they quickly began to compete for the rights to those markets. By 1650 there were around twenty-five permanent settlements along the eastern seaboard -St. Augustine (Spanish), Jamestown, Yorktown and Williamsburg (English), in Delaware (Swedish), Manhattan and Albany (Dutch), and Plymouth, Salem and Boston (English) included.

Most of the new settlements were established for the express purpose of commerce: fishing, lumbering, tobacco growing, fur gathering. Their sponsors in Europe had every reason to want them to flourish and prosper: they wanted their investments back with a profit; they wanted to buy raw materials and sell European finished materials. The competition was fierce. It was an age of mercantilism and economic warfare; of tariffs and embargoes; of piracy, plunder and smuggling.

It was necessary to keep the colonists supplied with goods for survival until they became established. The first English colony at Roanoke Island, North Carolina, vanished without a trace when left to its own devices for several years. Once established, however, the colonists rather quickly became independent of the mother countries for their basic necessities, such as cloth. They had brought spinning wheels and looms with them, and had all of the basic cloth-making skills.

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The small company of Pilgrims at Plymouth included a fustian-maker, two silk-workers, and many wool-workers.(3) As so many citizens of Europe worked in the cloth industry, it was only to be expected that many of the emigrants would be cloth-workers. All that was needed to begin cloth-making in America was the textile fibers themselves.

THE FIBERS

Hemp was native to Virginia. In 1609 Lord Delaware reported that "The Country is wonderful fertile and rich. Hempe better than English growing wilde in abundance."(4) Hemp is used for rope, cordage, and coarse cloth like burlap -- all very important in shipping and commerce.

Cotton also was native to the New World. Columbus had been greeted upon his arrival in the West Indies with gifts of cotton yarn.(5) By 1638 cargoes of cotton from the West Indies were arriving at Boston and Salem, where they were speedily purchased. Cotton was also native to the southern colonies, but was not cultivated there until somewhat later.

Flax, the plant which produces the long fibers of linen, was not native to America. But settlers brought flax seed with them and soon began the cultivation of the familiar and favored fiber. Linen, which wears so well, is a recalcitrant fiber to work with. It takes a lot of work and almost two years of time to get from seed to yarn, but the plant grows well in most climates.

Wool was the most familiar fiber to the colonists from Europe. England and Spain were rival sheep-raising nations; the Netherlands bought much raw wool from England to process themselves; Sweden, Scotland and Germany, sources of other early colonists, all were great users of wool. In North America there were no native woolbearing animals. Word went back from the first settlers asking that sheep be brought on later ships, and raw wool from Europe was a popular import item.

Silk fiber, though not used in abundance in America, was of some importance to the European sponsors. The English in particular had hopes of establishing silk "farms" in their colonies in order to be independent of Spain and Italy in acquiring silk. Mulberry trees were planted, silk worms imported, "throwsters" hired and trained, but the industry never really prospered.

By 1640, when there were around 100,000 European residents in North America, England was on the verge of civil war. Emigrations slowed down. Great attention was being given by England and The Netherlands to their increasing trade with India and the East Indies. As the northern American colonies had few trade goods wanted by England, trading there began to decline, thus spurring the Americans to increase their own textile manufacture. In the Virginia colony tobacco became the great trade item, and the southern colonies continued to import cloth to a much greater degree, delaying for many years a serious effort at domestic manufacture.

In 1640 the Massachusetts General Court called for a census of spinners, and an order went out for the manufacture of woolen and linen cloth. Thus, barely twenty years after the arrival of the Mayflower, the colonists in New England were developing an independent policy of local manufacture. Connecticut followed suit, and also began the construction of a ship specifically to go to the West Indies for cotton.

In 1645 an accounting of the sheep in New England was called for, and the order was given prohibiting the killing of lambs before the age of two years so that they could produce wool and more lambs before they were used for food. By 1660 there were 100,000 sheep in New England and wool was also being imported from The Netherlands and from Spain. Before the end of the 17th century, wool production was so extensive that it was being exported from the colonies, and in 1699 England passed the Wool Act forbidding such competition.

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In that same year Giles May, a ship's captain of Cape May, New Jersey, returned from a voyage to India bringing in his cargo "white Callicues ... 1 Bale of painted callicues" and some muslin. There were now nearly 250,000 residents of the American colonies of European origin, and they were demonstrating their economic independence of the Old World. The Revolution in the cloth industry was another eighty years away. By the time it arrived the Americans would be ready for it, and for their political Revolution as well.

FROM FIBER TO CLOTH

During the seventeenth century, fiber preparation was done at home. Whether home grown, purchased from elsewhere in the colonies, or imported, raw wool, raw cotton, and flax had to be laboriously washed and processed before it was ready to be spun.

Spinning also was done at home. Most households had a flax wheel or wool wheel, and sometimes both. Some women became professional at spinning, bartering their work with the produce of other households.

Most yarn was not dyed. Dyeing is a painstaking art, adding considerably to the cost and time of yarn preparation. Few of the "natural" dyes -- other than the stains of berries and nut-hulls -- can be successfully applied without the use of chemical mordants. Dyed yarns were mostly intended for outer clothing, while yarn intended for the making of household linens and underclothing was mostly left in its natural state. A touch of color could be added with embroidery, using a finely spun wool dyed along with the heavier weaving wools.

There are many kinds of weaving and different kinds of looms to do it on. A tape-loom, small enough to be used on a table top, was used to weave the yards and yards of tapes required in a home for fastening clothing, tying up bundles, hanging curtains, and binding the edges of things. Wider fabrics called for larger looms, and the wide woolen fabrics required very large and heavy looms which took up a great deal of space.

Often these huge looms would be kept in a separate shed or a loft above, as most early houses were quite small -- many of only two rooms.

Weavers who worked at home often did more than supply their own households; they might weave for neighbors or merchants as well. Very early, some weavers set up shops where they worked full time for their living, weaving the blankets, the bed-tickings, the sheets, the napkins, the towels, the bed-hangings and the coverlets for the house, and all the different kinds of cloth for the voluminous clothing of the period. They also wove the canvas, duck and burlap required by commerce.(6)

When an early 'woolen mill' or 'cotton mill' is spoken of, it is difficult to know what activity took place there. It may have been a weaving establishment where the looms and the yarn belonged to the owners and the weavers worked for wages. It may have been a fulling mill where the woven cloth was scoured and preshrunk. The earliest known factory in the American colonies was a fulling mill established in 1643 at Rowley, Mass. A calender mill was one which did washing and, more importantly, ironing or pressing of goods or even clothing. In this processing with hot irons, an embossed design or a glaze could be added to the cloth. The glaze we try to avoid when pressing woolens was highly thought of at one time.

At either a fulling mill or a calendaring mill, fabric might also be dyed. Calender mills were the precursors of our familiar 'cleaners and dyers' establishments. People did not do much laundry at home. When clothing got to looking too bad, it was often sent to be washed, ironed, and if faded or stained, re-dyed.

Although there was a remarkable amount of cloth made in the seventeenth century, most of it was rather plain. Plaids and checks were very popular, but damask and brocade weaves were beyond the capabilities of most American weavers. Later, these woven designs would be adapted for use in the woolen coverlet.

During these early years, much fabric also was imported from Europe --usually the finer silks and linens. But the next century would see England and Spain so worried about their failing colonial markets that they sold cloth for less in the colonies than at home. Even so, in the 1770's American women would take it as a matter of pride to wear home-spun domestic cloth rather than cloth from Europe.

In this essay I have tried to emphasize not only the extraordinary involvement of colonial Americans with textile manufacture, but also that this involvement is part of a human activity that began in the stone ages and continues right up to the present. The Encyclopedia Britannica, gathering information about industrial occupations, listed 55 major nations of the world where the number of people working in textiles and apparel exceeded the number in any other industry.(7) These statistics do not include the uncounted millions who work at spinning, weaving, knitting, sewing and stitching outside an industrial context. Textiles are still the biggest game in town.

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AMERICAN TEXTILES -- References

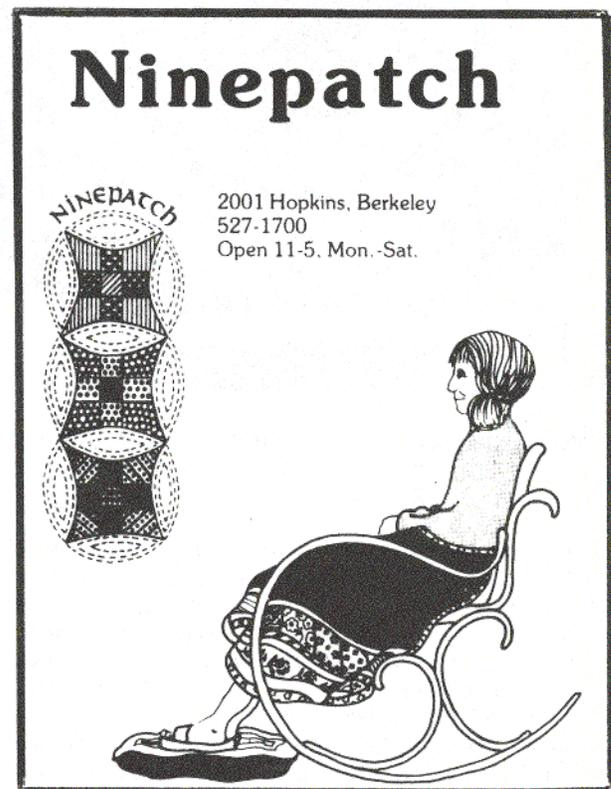
1. Boyd-Bowman, Peter; "Spanish & European Textiles in 16th Century Mexico," *The Americas*, 29:335 (Jan. 1973)
2. Wolfe, Reese; *Yankee Ships*. Bobbs Merrill Indianapolis, 1953 PP-17, 42
3. Little, Frances; *Early American Textiles Century*, N.Y., 1931 p. 29
4. Ibid. p. 14
5. Colón, Cristóbal; *Diario de Navigacion TOR*, Buenos Aires, n.d. p. 41
6. Bogdonoff, Nancy Dick; *Handwoven Textiles of Early New England*; Stackpole, Harrisburg, Pa., 1975 all pages
7. *Encyclopaedia Britannica ATLAS*; 1957

The Quilt Show of Lenice Bacon's collection has been cancelled due to her ill health. If you are interested in information concerning the collection, please contact Joyce Gross, Box 270, Mill Valley, Ca. 94941

In the upstairs gallery the Amish quilts with their unique color combinations were hung by a sleeve at a slight angle from the wall illuminated only by spot lights which gave the exhibit an eerie but not unpleasant effect.

We spent two pleasant hours amongst the quilts, but I did wish the Museum had hung the Hardman Medallion quilt from their own collection for those of us who admire and love it.

--Joyce Gross--



If you're going to the Continental Quilters Congress this summer, you might like to arrange for a guided tour of the DAN Museum, located at 1776 D. St., N.W. Washington D.C. Contact Curator, Jean Taylor Fedrico in advance 202-628-1776, or write. They have an excellent collection of quilts as well as other needlework. Most of the pieces are well documented as to maker, date and region. (For additional information see: *Needle Arts Winter '78*, published by the Embroiderers Guild of America, Inc.)
