

POLITICAL ECONOMY

IN THE CAROLINAS

THE FABRIC OF CIVILIZATION: HOW TEXTILES MADE THE WORLD

By Virginia Postrel. New York:
Basic Books, 2020. Pp. vii, 304.
\$30 hardcover

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// The story of textiles is a story of famous scientists and forgotten peasants, incremental improvements and sudden leaps, repeated inventions and once-ever discoveries. . . . It is . . . the story of humanity itself—a global story, set in every time and place” (p. 6). The Carolinas—along with their often-forgotten entrepreneurs, mill hands, slaves, and yeoman farmers—have been one of the most important settings of this global story.

As Virginia Postrel ably argues, textiles made the world: “Agriculture developed in pursuit of fiber as well as food. Labor-saving machines, including those of the Industrial Revolution, came out of the need for thread. The origins of chemistry lie in the coloring and finishing of cloth; the beginning of binary code—and aspects of mathematics itself—in weaving. As much as for spices or gold, the quest for fabrics and dyestuffs drew merchants to cross continents and sailors to explore strange seas” (p. 3). I read this broad claim with a hint of skepticism when I began *The Fabric of Civilization*, but my doubts soon vanished.

The book is organized thematically, beginning with a chapter on fibers (mainly flax, wool, cotton, and silk), followed by inquiries into thread, cloth, dye, traders, consumers, and innovators. As noted below, every one of these chapters brims with valuable insights and interesting facts. The broad, compelling theme is that “the story of textiles is the story of human ingenuity” (p. 3). Every economic history—indeed, every history and

every book about economics—would do well to pay attention to this theme.

The chapter on fibers sets the tone for the volume. The core argument is that “every new fiber idea eventually confronts the fundamental truth about textiles: Ancient and pervasive, they embody the experiments of countless generations. . . . Only the best materials can survive the competition” (pp. 39–40). Postrel begins in the Stone Age, when our distant ancestors discovered a general purpose technology (GPT): string. Postrel observes that this era could equally well be called the String Age. The first strings were bast fibers, which grew just inside the bark of trees and in the outer stem of plants such as flax, hemp, ramie, nettle, and jute. This GPT allowed early humans to “create fishing lines and nets, make bows for hunting or starting fires, set traps for small game, wrap and carry bundles, hang food to dry, strap babies to their chests, fashion belts and necklaces, and sew together hides. String expanded the capabilities of human hands and built the capacities of human minds” (p. 9). One of the many textile historians quoted by Postrel writes, “So powerful . . . is simple string in taming the world to human will and ingenuity that I suspect it to be the unseen weapon that allowed the human race to conquer the earth” (p. 9).

However, humans didn’t merely take what they found wild in nature; they brought out its possibilities. For example, by considerable trial and error, their insights and persistence turned wild cotton—an “unpromising plant”—into a “fruit machine” (p. 17). Missing these innovations, which accelerated at a rapid pace in the nineteenth century, some recent Marxist historians have mistakenly concluded

that soaring cotton picking rates by slaves—from about twenty-five pounds per day to one hundred pounds per day between 1800 and 1860—were the product of increased exploitation. More likely, they were the outcome of biological innovation, as shown by economic historians Alan Olmstead and Paul Rhode (2008). As Postrel notes, innovations such as these demonstrate that the antebellum South was not a technologically backward place: “In reality, the South nurtured its own scientific and technological ambitions, focused more on agriculture than on manufacturing. . . . Images of the antebellum South as technologically stagnant . . . confuse ‘technology’ with machines, obscuring equally significant forms such as hybrid seeds. . . . Southern planters . . . rewarded entrepreneurs whose seeds” delivered the highest yields (p. 25).

The chapter on thread reminds us how much we take technological progress for granted. It provides a table estimating how long it took to spin enough thread to make a pair of pants, bed sheets, a toga, and a sail using technologies beginning with the Bronze Age and ending in the period just before the Industrial Revolution. For example, simply spinning the thirty-seven miles of thread in a queen-sized bed sheet—leaving out the time needed for weaving and other tasks—took about 221 days of labor using Bronze Age methods. This fell to 65 days using a preindustrial spinning wheel. It is hard not to be grateful for the subsequent innovations that have freed us from constant toil—allowing us time to read books such as this one or take a walk on a Carolina beach, for example. Spinning was largely women’s work. Postrel insightfully

notes that dismissing spinning as a symbol of domestic submission rather than productive industry misses the reason why from antiquity onward it was honored as a sign of feminine virtue—or why, for that matter, the Industrial Revolution began with spinning machines. Only because thread has been plentiful for two hundred years does producing it seem like something other than the epitome of fruitful labor. Throughout most of human history, producing enough yarn to make cloth was so time-consuming that this essential raw material was always in short supply. The quest for thread prompted some of the world’s most important mechanical innovation, leading ultimately to the Great Enrichment that lifted worldwide living standards. (p. 43)

Postrel explains, “Spinning trains the hands, but weaving challenges the mind. Like music, it is profoundly mathematical. . . . Woven cloth represents some of humanity’s earliest algorithms. It is embodied code” (p. 72). Among the heroes of this chapter is Joseph-Marie Jacquard (1752–1834), whose programmable loom and storable patterns revolutionized the weaving industry and played an important role in the development of other programmable machines and modern computers. Although honored during his lifetime, Jacquard fled the city of Lyon several times before weavers embraced his new technology.

The chapter on dyeing reminds us that pollution didn’t begin in the industrial age. To produce flax, the plant’s stem must be soaked in water to remove the material that surrounds the usable fibers. The process, as any good crossword puzzle solver knows, is called retting. It, however, creates a disgusting odor, as the wording “ret” and “rot” come

from the same source. Likewise, the ancient city of Tyre, where regal purple dyes were produced from the spiny murex and the red-mouthed rock snail (both mollusks), had a “legendary stench.” Greek geographer Strabo wrote that “the great number of dye-works makes the city unpleasant to live in, yet it makes the city rich” (p. 120). Again, we can be grateful that modern dyes don’t cause such disagreeable externalities.

Postrel notes that the oldest surviving written record of long-distance trade—a four-thousand-year-old cuneiform tablet—concerns textile trading. She explains that cloth was used as money for long periods, traces the origins of important business practices—including double-entry bookkeeping and bills of exchange—to the cloth trade, and praises the middlemen who were and are vital to textile markets. The chapter could have been subtitled “in praise of middlemen,” as she memorably and pithily explains that “here, in brief, is what middlemen do. They build the economic bridge between today and tomorrow, and they charge a toll” (p. 177). Consumers, whose demand has ultimately driven all the innovation Postrel describes, are omnipresent. The customer is always right—provided that he or she pays enough. It’s harder to look systematically into the minds of consumers—their “need for protection . . . drive for status, and . . . pleasures of adornment” (p. 249)—than at the actions of producers. However, Postrel reminds us that status can be a zero-sum game, which has led those in power to often impose sumptuary laws reserving to themselves and a select few the right to wear certain types of clothing. These rules were frequently circumvented but sometimes gave consumers an excuse

to de-escalate their status “arms race”; and exemptions to these rules have occasionally served as a type of progressive tax. The demand side can be remorseless at times too, as Postrel reports that the records of the Company of Merchants Trading to Africa in the late eighteenth century reveal that cloth accounted for more than half of the value of goods bartered for slaves.

Returning to the Carolinas, one of the most important themes of *The Fabric of Civilization* is the dynamic nature of textile markets: the incessant turnover of what is produced, how things are produced, where they are produced, and who produces them. The industrialization of both of the Carolinas was largely driven by textiles, beginning in the late 1800s. But, in most ways, the apogee of the Carolinas’ role in textile markets is long past. Employment in North Carolina’s textile mills reached its peak at 293,600 in 1973 and collapsed in the 1990s and the early part of the next decade—with jobs lost because of automation and international competition (Glass and Kress 2006). South Carolina followed a similar trajectory (Carlton n.d.). However, the production of cotton in North Carolina is near its highest-ever level. Its output in 2019 exceeded one million bales—well above levels from the nineteenth century and most of the twentieth century, although below the all-time peak. In South Carolina, cotton production is well below its historical peak of 1.6 million bales in 1911, but it has grown since the turn of the millennium and is now almost ten times higher than at the nadir of 1983. In discussing modern textile innovators, Postrel mentions innovators’ ties to North Carolina State University (NCSU) on three occasions. NCSU’s Wilson College of

Textiles is a global leader in textile education and research. All in all, the textile industry still plays an important role in the state, which remains a center of innovation in an innovative industry.

- Carlton, David. n.d. “Textile History.” *South Carolina Encyclopedia*. <http://www.scencyclopedia.org/sce/entries/textile-industry>
- Glass, Brent D., and Kelly Kress. 2006. “Textiles.” In *Encyclopedia of North Carolina*, edited by William S. Powell. Chapel Hill: University of North Carolina Press. <http://www.ncpedia.org/textiles-part-4-decline>.
- Olmstead, Alan, and Paul Rhode. 2008. “Biological Innovation and Productivity Growth in the Antebellum Cotton Economy.” *Journal of Economic History* 68 (4): 1123–71.