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Silk and Society: Silk Manufacturers and Users 1870-1930. Based on a Study of the Haskell Silk Company, Westbrook, Maine

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SILK AND SOCIETY: SILK MANUFACTURERS AND USERS 1870-1930
BASED ON A STUDY OF THE HASKELL SILK COMPANY,
WESTBROOK, MAINE

A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF ARTS
UNIVERSITY OF SOUTHERN MAINE

AMERICAN AND NEW ENGLAND STUDIES

BY
JACQUELINE FIELD

1997

30, June 1997

We hereby recommend that the thesis of Jacqueline Field entitled "Silk and Society: Manufacturers and Users 1870-1930. Based on a Study of the Haskell Silk Company of Westbrook, Maine," be accepted as partial fulfillment of the requirements for the Degree of Master of Arts.

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Dean, College of Arts and Sciences

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J.F.

NOTES ON THE TEXT, FIGURES AND NOTES

1. The black and white illustrations and maps are scanned images. All maps and photographs are by the author.
2. In Chapter III all textiles are shown larger than actual size in order to illustrate the weave structures and patterns more distinctly. Each photograph includes a scale to indicate whether the image is enlarged by 50% or 150%.
3. Figures follow the notes at the end of each chapter.
4. Frequently cited collections and journals appear in abbreviated form in the notes. The abbreviations are:

HBS	Baker Library, Historic Collections, Harvard Business School
SAA	Silk Association of America
MATH	Museum of American Textiles
WML	Walker Memorial Library
ASJ	<u>American Silk Journal</u>
LHJ	<u>Ladies Home Journal</u>
ECS	Mrs. Eleanor Conant Saunders (private collection)

ABSTRACT

This thesis examines the history of U.S. industrially manufactured silk textiles, the range of silk fabrics produced and trends in the demand for silk goods during the period 1870-1930. Chapter One is a broad overview of silk industry developments, the reasons for its locations and the factors contributing to its rise and gradual decline. This background provides a context for the second chapter which focuses on one manufacturer, The Haskell Silk Company of Westbrook, Maine: the origins of the business, its growth and the production and marketing of its silk dress goods. Chapter Three analyzes in detail a variety of American-made silk products--including some associated with Haskell--contrasting early and late domestic silks and comparing the U.S. product with the European. The final chapter explores consumer attitudes to silk. By examining retailers' selling practices and reviewing changing shopping customs, this chapter studies the evolving meanings that silk products had for consumers and merchants in the late 19th and early 20th centuries.

This thesis makes several contributions to the history of American silks. It shows that some of the most exemplary and well known U.S. silks were manufactured by Haskell despite its location at the far periphery of the major Mid-Atlantic silk manufacturing region. Closely examining silk artifacts, I have traced the changes in the domestic silk product over time and argue that changing consumer tastes and lifestyle--consumer demand--exerted a major influence on what was made and sold. Finally this work demonstrates that although many aspects of labor, economics and technology in the U.S. silk industry are well documented, there is still much to be researched about the making and using of silk in the United States.

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INTRODUCTION

During the late nineteenth century, a period of national transformation, industrial production made many luxuries accessible to wide markets. Modest priced factory-made silk dates from this time. Silk, the youngest branch of the textile industry, like cotton and wool manufacture was concentrated in, but not confined to, the Mid-Atlantic region of America. In New England, a few mills traced their origins to antebellum experiments with silk worm raising, but most silk manufacturing plants, including the Haskell mill in Maine sprang into being in the post Civil War years. The proliferation of silk factories at this time was part of "the great surge in manufacture after the Civil War and the building of an extensive industrial heartland."¹

Entrepreneurs who chose to venture into silk production were encouraged by a number of elements, particularly the tariff on imported silks, but most significant was evidence of a market. The scale and nature of demand for silk accelerated in the late 19th century, as the transformation to a factory economy brought an improved standard of living to substantial segments of the population, and the general rise in real wages engendered growing numbers of people with discretionary income to spend on items such as clothes and even silk fabrics. Demand was the real catalyst for silk industry development. As one nineteenth

century entrepreneur observed, "Neither can any business rise or thrive except at the will of the people who are served by it."²

Throughout fifty years of industry growth and unprecedented silk consumption the Haskell Silk Company of Maine manufactured and found markets, coast to coast, for its silk dress goods. These high grade fabrics were made at Saccarappa falls on the Presumpscot River, one of those places post-Civil War entrepreneurs valued more for their rocky ledges--locations for mills and factories--than for the agricultural potential of the surrounding land.³ At Saccarappa in the postbellum decades the Presumpscot River powered the large Westbrook Manufacturing Company's cotton mills, the Dana Warp Mill, the Haskell Silk Company mill, a number of smaller textile operations, modest machine shops and wood products factories. A mile downstream, the S. D. Warren paper mill gave rise to a separate development with its own surrounding community and worker housing. By the turn of the century the two districts had grown together, joined by a long elm shaded Main Street, with a cluster of different denominational churches concentrated at the center where the two communities met. Like most towns, and reminiscent of Thornton Wilder's New England evocation, Our Town, the professionals, merchants, bankers and middle-class lived in one part of town and the factory workers in another. In Westbrook the divider was not the railway line, but the river. Cotton, silk and paper mill worker housing extended all along the north bank. Near the cotton factory at Saccarappa the spire of the immigrant workers' French-Canadian catholic church, St. Hyacinths', rose upwards and formed an eloquent visual link with the spires on the south side of the river.

The Haskell Silk Company originated in the 1870s and later expanded in this small, northerly, New England town. James Haskell and his sons were not absentee owners. They were proprietor-managers who lived close to their mill and mill workers's housing.⁴ A study of their silk operation serves a dual purpose: on the one hand, it provides an opportunity to survey the unusual--the most northerly situated U.S. silk mill--and on the other it provides a view of a family owned small town factory that lasted barely three generations--a business far more typical of late nineteenth century America than gargantuan enterprises in major industrial centers.⁵

In his 1993 analysis of the industrialization of a somewhat larger town, Harrisburg, Gerald Eggert argues that most recent studies of the industrialization of communities fall into two categories.⁶ One group (the most predominant) consists of works that use a labor and social history perspective and focus on the way factory work impacted on operatives. Entrepreneurs are given little attention, and when they are depicted it is usually in a less than flattering light. The other group includes works that examine the industrialist's point of view, but tend to shunt the workers alongside all the other factors the entrepreneur had to contend with along the road to success. Eggert posits that, ideally, the two approaches should be treated together since they are aspects of the same process.

This work falls outside the parameters outlined above. The silk factory entrepreneurs discussed are "seen neither as heroes or villains and . . . factory hands neither as victims nor as suppressed revolutionaries."⁷ The purpose of this is the study of the product of the collective owner-operative energies--the

artifact, silk cloth.

The study is organized in four parts. The broad picture will be addressed first: why did the U.S. manufacture of silk textiles develop so much later than wool and cotton? Where were manufacturers located and what elements led to the sudden rise and eventual decline of the American silk industry? Cited studies will show the role that European immigrants, both entrepreneurs and skilled silk workers, played contributing ideas and technical innovations.⁸ Transport and new sources of raw materials also influenced the pace and direction of developments.

Second: an examination of one company, Haskell, provides an opportunity to raise more precise questions. What did it take to set up and operate a silk mill? What did they make? Who organized the venture and who were the workers? There were other textile mills in Saccarappa and neighboring towns, but no others were engaged in silk manufacture. This novel (for the region) enterprise was developed from scratch by a member of the entrepreneurial elite, an individual with a long record of creative business endeavors to his credit. However the workforce, predominantly French Canadian immigrants, brought none of the specialized silk skills their European immigrant counterparts injected into "silk city" Paterson's mills. Nonetheless they developed the requisite proficiencies, as the well-regarded Haskell silks testify.

Third: what type of fabrics did the Haskell Silk Company produce? What characterizes American silk textiles and what signals do they communicate? Because existent company documents are limited, the effort to make Haskell silks speak must rely on advertisements, agent's records and comparisons with similar

goods made by other companies. These late 19th and early 20th century factory made silks, which comprise what will be called in this study--the collective artifact--constituted a new category of textile that struck a "middle ground between luxury and deprivation, indulgence and necessity, and, if inexpensive enough, (permitted) non-elites to enrich their patterns of consumption."⁹

Fourth, and finally: how did consumers regard silk? What were the prevailing attitudes towards silk goods and how did they change as silk became ever more abundantly available? Users include sellers and buyers. Retailer attitudes to silk as demonstrated by their selling strategies, will be examined. It will be shown that demand for silks exerted a continual feedback influence on what was made and sold. It was market forces that changed silks, so that they not only came to be more abundant and inexpensive, but also came to serve changing lifestyles. The heavy silks of the late 19th century were quite different from the the active 'kinetic' fabrics of the 1920s. Another departure from earlier times, the flesh colored silk stockings of this era became a special market sector.¹⁰

Because the four chapters encompass a wide range of topics--from the maker, the silk product and the responses silks engendered--a wide cross section of scholarly sources and approaches were reviewed, as were a variety of historic documents and other materials. Thomas Schlereth and E. McClung Fleming illustrated organizational frameworks that accommodated the analysis of silk textiles as material culture. First hand examination of silk fabrics by myself in museum collections contributed to an understanding of the characteristics of U. S. industrially made silk. Additionally, trade journals and contemporary accounts resolved some technical puzzles. In localized and wide sweeping studies scholars

Walter Licht, Philip Scranton, Gerald Eggert and Jonathan Prude between them deal with entrepreneurs, workers and the process of industrialization in the early and late 19th century decades. These works helped place the silk industry in general and the Haskell company in particular within the context of the times.

The insights and observations of Jackson Lears and Susan Porter Benson illuminate aspects of advertising, consumer behavior and retailing. Kathy Peiss' study provided details of working women's attitudes to spending on dress; Stuart M. Blumin's expansive study of the 19th century middle-class; and Daniel Horowitz's statistical citations shed light on "middling" people, their family budgets and lifestyle. Since the focus is on middle class consumer goods--inexpensive and moderate quality U.S. factory made silks--reference was confined to middle class magazines: The Ladies Home Journal, The Delineator and McCall's Magazine; Sears catalogues, trade journals. and local newspaper advertisements.

Silk studies are usually narrowly directed economic or labor histories and the end product, silk cloth, is invisible . However this study aspires to be broader and include the collective artifact--U.S. industrially made silk. The four separate chapters are unified by the central artifact, silk. Each chapter has its own form and resembles a color block or design unit that exists in its own right. Yet like a printed silk, when all the different colored units are combined and viewed together, they present a whole design.

Notes

- 1 Walter Licht, Industrializing America. The Nineteenth Century (Baltimore and London: The Johns Hopkins University Press, 1995), 124.
- 2 Malcolm McNair, ed. "John Wanamaker on the Department Store, 1900." Daniel J. Boorstin, ed. An American Primer (Chicago, London: The University of Chicago Press, 1966), 635.
- 3 The reference cites postbellum developments in southern New England but it seems equally applicable to southern Maine where similar developments took place. Jonathan Prude, The Coming of Industrial Order (Cambridge, London: Cambridge University Press, 1983) 183.
- 4 Prude discusses the significance of owner oversight of mill management. Ibid., 79.
- 5 Gerald G. Eggert, Harrisburg Industrializes: The Coming of Factories to an American Community (University Park: Pennsylvania University Press, 1993), xv - xvix.
- 6 Ibid., xviii.
- 7 Ibid.
- 8 For information about English entrepreneurs, workers and technology transfer see Richard D. Margrave, "Technology diffusion and the Transfer of Skills: Nineteenth Century English Silk Migration to Paterson." Philip Scranton, ed., Silk City: Studies on the Paterson Silk Industries, 1860-1940 (Newark: New Jersey Historical Society, 1985.), 9-33.
- 9 Annette B. Weiner and Jane Schneider, Cloth and Human Experience (Washington D.C.: Smithsonian Institution Press, 1989), 12.
- 10 Silk knitting was a small specialized segment of the silk industry concentrated in the Philadelphia area. See illustrations and details about knitting in Philip Scranton and Walter Licht, Work Sights, Industrial Philadelphia 1890-1950. (Philadelphia: Temple University Press, 1986), 113-120. Before the days of short skirts stockings were, of course, a much less visible item of dress. Most women wore shapeless tubes of knit cotton. It was a luxury to have ankles encased in expensive richly colored silk hose often embellished with lace or embroidered clox. Transparent flesh colored silk hose manufacture boomed in the 1920s. One of the few places cotton felt competition from silk was in silk knit hose. As silk knit hose production increased cotton knit hose decreased. Nevertheless in terms of total production cotton hose far outstripped silk. Silk knits are not a major focus in this study.

CHAPTER I

SILK MANUFACTURE IN AMERICA 1870-1930

The Haskell Silk Company in Westbrook, Maine, was founded by a local entrepreneur and cotton mill owner, James Haskell. He began the enterprise in the postbellum years, an era that "witnessed the putting in place of a new political economic order, long championed by those who sought to build the United States into a powerful nation-state through government promotion of growth and large scale enterprise."¹ Although not intended for the purpose, it was a government action--the imposition of a high tariff on imported silks--that played a role in stimulating the growth of silk manufacture in the U.S. at this time. From the 1860s on the industry grew steadily in various locations from New England to New Jersey and Pennsylvania.

In northern New England the two story brick-built Haskell mill did not suddenly appear in Westbrook, in the way silk plants sprouted almost overnight in Pennsylvania towns. Instead this handsome brick mill structure arose in 1902 as the culmination of family enterprise, initiated by one generation and thereafter developed by the next. From its small beginnings in the post Civil-War years to its demise in 1930 the Haskell Silk Company's fortune unfolds within and closely parallels that of the American silk industry as a whole.

The Haskell Silk Company was incorporated in 1876 on the eve of the Philadelphia Centennial Exhibition. At the time an observer of the emergent American silk industry remarked:

Our manufacturers have achieved a great and wonderful success in their dress silks. . . . there is room to hope that before the dawn of the twentieth century we shall be exporting instead of importing silk goods; that the moderately priced but durably spun silks will claim their place as the most economical dresses for our American women while engaged in their everyday duties.²

This comment reveals a level of industry ambition and consumer expectation unimaginable just a decade before. During the early 1860s, the few small silk mills in operation in the United States manufactured very little silk and production concentrated predominantly on sewing thread. Individuals with a taste for silk dress fabrics and pocketbooks that could afford such luxuries still relied on expensive European imports drawn in about equal parts from England and France.³ However, dating from the Civil War era a number of factors precipitated a rapid increase in both the volume and variety of silk goods produced in the U.S. until, by the 1920s, domestic manufacture began to satisfy demand for silk on an unprecedented scale.

Because the other branches of the American textile industry, wool and cotton, matured and experienced significant development before the Civil War two questions arise: first, why did similar progress in silk manufacture not occur sooner; and second, why did the silk industry grow so rapidly and surge forward so successfully? In this chapter I will survey these issues and attempt to identify elements which contributed to the initial spurt of silk manufacturing and the subsequent rise and decline of this silk industry. The purpose of the investigation

is to provide a context which will form a basis, first for a case study of the Haskell Silk Company as a representative example of the industry and second for an examination of silk industry products and consumer attitudes to silk between 1870-1930. This survey will show that among all the economic, political, social and technological factors concomitant to the successful development of a full scale American silk industry in the late 19th century, a growing middle-class interested in and willing to spend money on modestly-priced silks goods was the essential catalyst necessary to spur the growth of silk manufacturing.

Some definitions of fundamental silk terminology are necessary at the outset. The silk industry consists of two distinct branches: sericulture and manufacture. The term sericulture or silk culture includes the agricultural process of cultivating mulberry plants, raising silkworms from eggs and reeling (unwinding) continuous filament from the cocoons. Several filaments are reeled together because single filaments are too fine to use alone, but nevertheless the resultant silk is still very fine and to the naked eye looks like a single filament. This reeled silk, put up in skeins, is called raw silk and it is in this form that silk is traded. Silk manufacture refers to the further processing of raw silk. First, depending on the required thickness, numbers of raw silk threads are assembled together to form a strand. Strands (singles) are passed through different twisting sequences, known as throwing, to make various types of thread or yarn, each designed for specific end-uses: very tightly twisted organzine for warps, loosely twisted tram for fillings, less well twisted thread for hand sewing, light twist floss for embroidery and highly twisted for sewing machines. Silk threads are woven into heavy and lightweight textiles, broad and narrow fabrics; they are knitted,

netted, made into fringes, lace and other decorative trims. Specialized finishing processes color and transform threads and fabrics into the final desirable commodity.

Origins and Collapse of Sericulture in America

Almost from the first sericulture was practiced in the colonies which were perceived as a potential source of raw silk supplies for British silk weavers. With this end in mind, King James in the 1620s denounced the popular export crop, "the pernicious weed tobacco," and in its stead vigorously promoted mulberry cultivation.⁴ However, from James's time on through the mid-eighteenth century, government sericulture incentive schemes produced very little result.⁵ After 150 years of promotional effort, the amount of silk shipped to England was minuscule in relation to the bounties paid and the vast numbers of mulberry trees planted. Raw silk exported from North and South Carolina between 1731 and 1755 totalled only 251 pounds over the entire twenty years and by the eve of the Revolution southern states produced no raw silk.⁶ In contrast, at a later date, a different setting and a different political and market climate stimulated production so effectively that one small town put out out more silk in one year than the Carolinas did in twenty. A report from Connecticut in 1826 noted:

Three fourths of the families in Mansfield are engaged in raising silk, and make, annually, from 5 to 50 pounds in a family, and one or two have made, each, 100 pounds in a family. It is believed there are annually made in Mansfield and its vicinity from three to four tons. [This figure was later more accurately assessed to be 7,000 pounds.]⁷

This level of activity signifies the vigorous development of sericulture and silk manufacture which took place after the Revolution in a new northerly locale--New England.

In the new republic silk manufacture (thread making) was concentrated in Connecticut. For most of the first fifty years after the Revolution it was a cottage industry that employed laborious hand methods to produce crude sewing thread from locally cultured silk.⁸ In the initial phase, a time when little money was used, homemade silk yarn played an important role as "the circulation medium" and skein lengths were strictly regulated by the Connecticut legislature.⁹ For sewing purposes it reached the wider, largely rural, home market via country stores and peddler's packs and provided a popular alternative to more expensive Italian imported sewing thread.¹⁰ Encouraged by this growing market ambitious entrepreneurs improved machines and (no doubt inspired by the example of Slater's spinning equipment) explored waterpower in the effort to increased production.¹¹

Viewed within the broad context of the times silk developments were an integral part of the changes that first began to sweep through New England in the late 18th century, a time when:

we can actually sense the shift from a premodern traditional society to a modern one in which the business interests and consumer tastes of ordinary people were coming to dominate. Something momentous was happening in the society and culture that released the aspirations and energies of common people as never before.¹²

This energy stimulated both consumption and production. Gradually mechanization made a preponderance of affordable consumer goods available to

the growing middle class. In the antebellum period, as historian Walter Licht traces, entrepreneurs established different types and sizes of textile mills throughout the New England region.¹³ However, as factories proliferated across the countryside, on the one hand they produced inexpensive cotton and woolen textiles, assorted consumer goods and employment, but on the other they disrupted traditional artisanal patterns of manufacture and introduced rigid, hitherto unknown, clock regulated work hours.¹⁴ Within the first decades of the 19th century the textile factories expanded to previously unimagined sizes and levels of production.

In New England silk manufacture, however, remained very small scale and limited to thread.¹⁵ Output was insignificant compared to cotton and wool textile operations. Nevertheless, in the 1820s, encouraged by demand and by the example of successful water and steam powered textile factories, numerous associations and silk stock companies formed, some with the intent to manufacture silk and others to increase supplies of raw silk.¹⁶ The latter ambition led to wide scale mulberry cultivation which peaked in the late 1830s, after a period of frenzied speculation in the allegedly superior species of mulberry, *morus multicaulus*.¹⁷ In the course of all the investment people lost sight of the reality that growing mulberry was straight forward, but silk worm raising and silk reeling presented problems.

Growing acres of mulberries and raising silk worms appeared to be an ideal form of seasonal "home work" for rural New England households. The process served that purpose briefly after the Revolution, but by the 1820s the whole

operation was far too labor intensive for the return produced. Furthermore, as Licht explains, the New England countryside was in the process of transformation as mercantile and industrial activities increased and transport and distribution improved.¹⁸ Along with all this, to the detriment of sericulture, a market for labor developed. A transient, mobile workforce is the antithesis of that in successful silk rearing regions--parts of China, India, France and Italy--typically inhabited by stable peasant farm families.

With the market crash of 1839 most of the new silk corporations lost both their capital and their vision of an industry independent of imports. Any lingering ideas of reviving sericulture in a significant way finally disappeared when blight struck the mulberry trees in 1844. After this manufacturers finally abandoned the notion of an integrated industry--one that raised its own raw silk for its own factories and did not rely on imports.¹⁹ While, in theory, domestic silk production was a fine idea, the obsession with sericulture was seen by some as something that syphoned off capital instead of directing it to the development of manufacture. However, once freed from the complications of trying to raise silk, the few remaining silk companies imported raw silk and concentrated their efforts solely on manufacture and began in a small way to serve at least some part of the demand for silk products that was growing steadily as the number of middle class consumers increased.

New Sources of Raw Silk and Technical Innovations

The manufacturing efforts of the 1850s proved to be a foundation for major developments after the silk tariff of the 1860s imposed a 60% tax on imported manufactured silk goods but left imported raw silk duty free. Market pressures and labor costs stimulated innovation in the silk industry during its period of seminal development in the three decades after the Civil War. In some ways the progression resembles that of cotton and wool mass manufacturing--1812 through the 1840s--but it differs in terms of product development.²⁰ During the early phase of industrialization the cotton and wool industries concentrated on low-end products aimed to displace similar British goods. Technical innovations were geared principally towards standardization and "increasing production rather than developing product quality or variety."²¹ Conversely in the early stages of silk industrialization--1860s to 1880s--silk production was concentrated on fashionable (although small scale) narrow goods such as ribbons and trimmings. Because the profile was closely linked with fashion, technical innovation made key contributions to quality, diversity and the ability to respond to changing consumer tastes more quickly than any foreign competition. In the fullness of time, standardization made staple silks--a new class of silk textiles--a viable reality.

As American silk production expanded in the mid-19th century new raw silk sources and reeling innovations developed symbiotically. The goal of reeling is to unwind the filaments from 6 or 8 cocoons together at the same time so that the resultant thread (still extremely fine) is uniform in thickness. Consistently

reeled silk, the raw material of throwing or yarn preparation, is crucial to the modern industry. While Europe produced superior, expensive raw silk, the alternative--the Chinese variety--was less costly but of a poor and unreliable quality.²² Consequently American manufacturers recognized the efficacy of improving the Asian product and embarked upon the task, which proved to be difficult.²³ A number of initiatives were pursued. In one instance sample skeins of reeled silk were shipped to China to illustrate what was desired. Following this batches of the latest improved American reels, complete with instructions, were dispatched. Some determined importers, notably A. T. Walker of New York, travelled to Canton and Shanghai. One firm, the Ezra B. Goodrich Company established and operated its own reeling (filature) plants in China.²⁴ Although the general quality of Chinese raw silk improved by the 1870s frequent problems, among them, adulteration or weighting, made it less attractive to American manufacturers.²⁵

At this time a convergence of international circumstances brought American and Japanese interests together. Since 1865, the Japanese (new to international trade) had specialized in the export of grain (silk worm eggs) to European sericulturists.²⁶ That export business peaked about 1875 and collapsed within a few years. As a result, Japan, in search of a market, switched to raising silk for America where the industry was hungry for reliable raw silk supplies.²⁷ With government directed thoroughness and an awareness of the potential revenues to be yielded, the Japanese not only applied themselves to large scale scientific silk worm rearing and mastery of the latest American reeling (filature)

technology, they also actively communicated with manufacturers to determine the precise specifications required for American machine production.²⁸ An efficient quality control system guaranteed a consistent quality of raw silk tailored to the needs of the American industry. Ever increasing cargoes of reeled silk aboard ships of the Pacific Mail Line (inaugurated 1867) plied regularly from the new harbor at Yokohama to San Francisco and from thence via the Transcontinental Railway (opened 1869) to New York. There, by the mid-1870s several Japanese companies, among them the Yamamoto Trading Company, conducted business alongside A. T. Walker and a host of other American silk importers.

By the late 1880s, not only Japanese but also the old established Italian and French filatures (silk reelers) employed American reels. Between 1881 and 1889 the latest reels speeded the process and enabled each operative to increase output of raw silk suitable for the American market from one half to one pound per day.²⁹ By the early 20th century instead of a single reel one individual operated twenty four. The best reels in the world, in any country, were U.S. made.³⁰ Thus although America produced no raw silk and possessed no filature to reel silk, its innovative reeling technology, spread world wide, guaranteed plentiful supplies of raw goods to feed its major silk manufacturing industry.

Other Innovations and Technical Development

In the 1850s, the decade after domestic sericulture ceased, the Cheney Silk Company of Manchester, Connecticut, is credited with developments that increased the silk available for manufacture in the United States. This silk firm was one of the very few in America with any cloth (other than narrow goods) weaving capability. Probably inspired by English silk spinning machines and stimulated by the expense of raw silk imports, the firm explored the means of utilizing the tangled and damaged filaments--'waste'--generated in very substantial quantities by the early industry.³¹ Salvaged, instead of discarded, 'waste' was chopped into short fibers to resemble cotton or flax, then processed and spun on existing machinery specially adapted for silk. Thus instead of continuous filaments, 'spun' silk consists of recycled short bits of filament.³² Less lustrous than filament but much less expensive, spun silk was woven into some of the earliest American made silk fabrics wide enough to use to make dresses. Displayed at the Philadelphia Centennial exhibition in 1876 these fabrics along with other silk products drew public attention to the advances in the silk U.S. industry.

As manufacture expanded and diversified beyond sewing thread and trimmings to ribbons, handkerchiefs and (eventually) broad goods, technical innovation distinguished production processes in those branches as it had in reeling. Looms driven by water and steam quickly replaced handlooms. The census shows an increase from 1,605 power looms in 1875 to 5,321 in 1880 in the

silk industry.³³ This development--the expansion of power looms--signals the start of silk yard goods production. While silk manufacture has its own special requirements, no doubt progress was stimulated by the example of the well established cotton and wool industries, which had long experience making broad goods using powered spinning and weaving machines.

During its crucial phase of development, 1860s-1880s, the silk industry benefitted from the influx of immigrants from old European silk centers.³⁴ Both entrepreneurs and workers provided the new American industry with methods and ideas which evolved rapidly in a climate open to technical innovation.³⁵ In the case of ornate trimmings, cords and fringes, still "made by the old laborious methods in Europe," intensive hand labor was no longer required in America as early as 1880. Instead the items were produced inexpensively by specially designed machines in which "the action . . . seems almost life-like; fingers of steel spring out and catch the moving strands, turn them and combine them in the most ingenious way."³⁶

By the 1880s silk manufacturing bore little resemblance to that of a few years before.³⁷ "If we stop to survey the progress made at this point," wrote noted silk industry veteran John Atwood, "we find that one operative will spin more silk and do it better than 2,000 could half a century ago, the room occupied would be only about one four-hundredth part as much, and the cost of the machinery about one twentieth."³⁸ Atwood had witnessed a revolution.

Geographic Distribution of the Silk Industry and Product Development

Silk manufacturing developed in locations which offered an attractive business climate. Philip Scranton explains this type of environment, as a "matrix" or collection of social and economic factors "that together constitute the total situation for production and profit faced by entrepreneurs."³⁹ These areas offered advantages such as a labor supply, favorable labor laws, economic ground rents and tax rates, accessibility to raw silk and to markets.⁴⁰ The number and degree to which these factors existed played a pivotal role in determining where concentrations of silk manufacture occurred. Through an examination of their geographic distribution over time, it is possible to track the areas where specialized branches of the industry arose, relocated and eventually congregated and then link the different locales and patterns of movement to important causative factors. (Fig. 1)

Before the Civil War some American silk manufacture was conducted in Philadelphia but the major activity was centered in New England. At this time manufactured products consisted of thrown silk, hand and machine sewing thread, floss, trimmings and coach lace (fringe, tassels, braids); only two concerns, Cheney in Connecticut and Ryles in Paterson, made anything reported as "silk cloth."⁴¹

By 1910 twenty five states produced of some type of silk goods, but only five (New Jersey, New York, Pennsylvania, Massachusetts and Connecticut) can be categorized as major silk industry sites.⁴² New England, once the center,

poised for major silk developments, rapidly lost out to areas surrounding New York City when raw silk imports began to increase. From antebellum years through the 1860s silk goods passed through New York. However, when the new 1860s tariff made imported silk products even more expensive but left raw silk duty free, raw silk imports for U.S. silk manufacture grew apace. Inevitably, as port of entry, New York evolved into the natural market center for silk and this phenomenon precipitated silk related developments both in and around the city.

Because it is possible to make trimmings in relatively small spaces, producers tended to congregate in New York city. For manufacturers of these items, so subject to rapid style changes, the city's advantages as a barometer of fashion offset the expense of urban rents and taxes. Sewing thread manufacturers however, in search of larger, less expensive accommodation turned their attention to nearby Paterson and other New Jersey locales which offered lower taxes, affordable sites and an immigrant labor force. In 1852 Paterson counted one single silk manufacturer. By 1875 it boasted thirty two. As early as 1870 New Jersey eclipsed New England in the total value of silk manufactured and became the leading silk manufacturing state as Table 1.1 shows.

Table 1.1.--Value of manufactured silk products by state, 1870.

<u>State.....</u>	<u>Value</u>
New Jersey	\$3,998,964
Connecticut	3,314,845
New York	1,836,073
Pennsylvania	1,632,900
Massachusetts	1,402,500
Others	<u>35,380</u>
Total	\$ 12,210,380

Source: Shichiro Matsui, The History of the Silk Industry in the United States (New York: Howes Publishing Company, 1930), 48, cites the 1870 census, 624.

Table 1.2.--Value of manufactured silk products by state, 1880

<u>State.....</u>	<u>Value</u>
New Jersey	\$12,851,045
New York	9,368,025
Connecticut	5,438,025
Massachusetts	3,491,039
Pennsylvania	2,853,165
Others	<u>918,320</u>
Total	\$34,919,320

Source: Shichiro Matsui, The History of the Silk Industry in the United States (New York: Howes Publishing Company, 1930, 48, cites the 1880 census v.II, 25.

In the years between 1870 and 1880, as Tables 1.1 and 1.2 illustrate, Connecticut dropped to third place and, in the New York region, New Jersey became the dominant producer. Throughout this decade the area in and around New York continued to exert a magnetic attraction for new and relocating silk ventures. The most significant change in this period was the beginning of the production of broadgoods (dress fabrics).

Through 1880-1890 sewing silk, machine twist, narrow goods (ribbons), braids, fashion and upholstery trimmings and other such items were the most

important domestic silk products. They constituted the major part of the total value of American silk production.⁴³

Table 1.3.--Summary of production of different kinds of silk goods manufactured in the year ending June 1880.

Sewing-silk	\$ 776,120
Machine twist	6,007,735
Floss silk	225,025
*Dress goods	4,115,205
*Satins	1,101,875
Tie silks and scarfs	606,675
Millinery silks	891,955
*Other broad goods	627,595
Handkerchiefs	3,881,590
Ribbons	6,023,100
Laces	437,000
Braids and bindings	999,685
Fringes and dress trimmings	4,950,275
Cords, tassels, passementerie, millinery trimmings	1,866,575
Upholstery and military trimming	1,395,355
Coach laces and carriage trimmings	37,510
Undertakers, hatters' and fur trimmings	59,805
Mixed goods and silk values therein	<u>519,643</u>
UNITED STATES	\$34,519,723

* Denotes broad goods.

Source: William C. Wyckoff, Silk Manufacture in the United States (New York: Silk Association, 446 Broome Street, 1883), 51.

The domestic silk items in Table 1.3 accounted for only thirty eight percent of silk goods consumed in America in 1880.⁴⁴ Of that amount only a tiny fraction was broadcloth as the figures evidence. Clearly, in 1880 consumers in search of yard goods for dresses still relied chiefly on imports. From this time, however, the situation began to change and the production of woven dress goods increased rapidly in the 1880s.

Despite twenty years (1860-1880) of steady expansion within the industry, silk manufacture remained very small scale compared to other, earlier established, sectors of the textile industry. In this era numerous wool and cotton mills operated up and down the east coast from Philadelphia to Boston. In New England Massachusetts was home to innumerable small enterprises and the immense Lowell and Lawrence mill complexes, while Rhode Island boasted the Fall River mills and New Hampshire housed the largest U.S. textile factories at Manchester.⁴⁵ However, late 19th-century silk factories had one thing in common with these textile operations--they employed increasing numbers of immigrants. This cheap labor force, the mechanization of wider looms and increased supplies of raw silk from Japan made the production of reasonably priced broad silk dress fabrics possible.

The late 1880s and 1890s witnessed the start of yet another silk industry migration--this time to Pennsylvania. This mobility was not peculiar to silk; in the course of their developments many other U.S. industries ebbed and flowed from region to region.⁴⁶ The silk industry's migration at this time was precipitated by labor unrest, the ongoing pressure to reduce labor costs (higher in the U.S. than Europe) and recognition of the existence of an untapped labor pool in Pennsylvania.

The mechanical innovations the first generation of highly skilled silk immigrant workers contributed to created machines that gradually dispensed with the need for expertise, and promoted what some historians call the "deskilling of the labor force."⁴⁷ This new machinery required neither skills nor physical

strength, a situation that led to a change in nature of the workforce. Since the unemployed women and children in Pennsylvania's mining areas fit the new labor requirements and were inherently more passive and less prone to union activism than workers in and around Paterson, manufacturers hurried to capitalize on this resource. Besides plentiful supply of workers the region offered a matrix of attractions--some unthought of until now--cheaper energy costs (local coal); inducements in the form of tax rebates; outright gifts of land; and even public subscriptions to raise money to offer as a bonus to entice companies to set up in small towns.⁴⁸ Both specialty throwsters (silk thread makers) and the throwing divisions of many broad silk and ribbon manufacturers quickly relocated in Pennsylvania, and some weaving plants followed their throwing divisions south.

After 1914 new automated wide looms used in the new Pennsylvania plants moved this state's production capacity ahead of New Jersey as Table 1.4 indicates. Not only were there fewer looms in New Jersey, many of them were old narrow labor intensive looms in use in Paterson.

Table 1.4.--Active looms in Pennsylvania and New Jersey 1904-1914.

<u>Year</u>	<u>Number of looms Pennsylvania</u>	<u>Number of looms New Jersey</u>
1904	19,336	23,935
1909	26,249	28,915
1914	33,694	27,781
1919	37,482	34,681
1923	39,830	32,324

Source: Shichiro Matsui, The History of the Silk Industry in America (New York: Howes Publishing Company, 1930), 52, cites the 1920 census v. X, 231 and 1923 census, 13.

Table 1.5.--Value of silk products manufactured in each state in 1923.

State	Value of products manufactured
United States	\$761,322,119
Pennsylvania	286,073,270
New Jersey	183,389,001
New York	105,018,094
Connecticut	74,674,044
Massachusetts	33,646,974
Rhode Island	31,397,303
Virginia	31,397,303
Maryland	1,330,596
Others [includes Maine]	41,853,632

Source: Shichiro Matsui, The History of the Silk Industry in America (New York: Howes Publishing Company, 1930), 53-54.

Pennsylvania's production consisted of a high volume of medium and low quality staples. In contrast, New Jersey's mills made a mix of wide loom staples, fine high pickage (compact superior weaves) and labor intensive low and fancy (Jacquard) goods put out by Paterson's looms. New England remained the center for thread manufacture as shown in Table 1.6 below.

Table 1.6.--Summary of the of major classes of goods manufactured in each region in the early 1920s.

State	Main categories of goods manufactured.
Pennsylvania	Broad silk staples, thrown silk and some silk knits
New Jersey	Quality fine weaves, fancy weaves, Jacquards. Paterson small shop low+medium fabrics.
New York	75% of the newest textile-- artificial silk--and high quality fancy goods
Connecticut	Almost all domestic velvet (a very specialized fabric) and 75% total of machine twist.
Massachusetts	Cotton and silk mixes.
Rhode Island	Cotton and silk mixes--together Mass. and R.I. make almost all of this class of goods.

Source: Shichiro Matsui, The History of the Silk Industry in America (New York: Howes Publishing Company, 1930), 53-4.

In the post-World War I years a profusion of affordable broad silks streamed from U.S. looms and flooded the market. Overproduction was not new

to the silk industry; it was endemic. The custom of buying raw silk on six months credit meant that desperate "debt ridden proprietors poured their goods into glutted markets" in the effort to recoup at least some of their financial outlay.⁴⁹ In the 1920s the situation was exacerbated by all the other silk-like fabrics: cottons made silky by special finishes, silk mixed fabrics and the silk substitute, rayon. Deliberate misrepresentation of goods (especially hosiery passed off as silk) and price undercutting aggravated the situation. Law suits filed by the Silk Association led to industry regulations as to what might be marketed as silk.⁵⁰

Rayon began to make significant inroads into the silk market. Table 1.7 reveals that already by 1923, the amount of rayon filament made in America was rapidly approaching the amount of silk imported annually.⁵¹

Table 1.7.--Increase in rayon and silk production 1913-1923.

<u>ARTIFICIAL SILK (RAYON)</u>	
World production.	1913.....20,000,000 pounds
	1922.....70,000,000 pounds.
<u>ARTIFICIAL SILK</u>	
U.S. production	1923.....35,380,000 pounds.
<u>NATURAL SILK</u>	
U.S. imports	1923.....49,506,000 pounds.

Source: Leslie Wheeler, "International Trade in Raw Silk" Trade Information Bulletin No. 283, United States Department of Commerce, 16-17.

Table 1.8.--Annual average American raw silk imports.

1919-1913	24,550,000 pounds	
1922	50,712,000-pounds---	<u>highest import volume ever achieved</u> includes 41,326,000 pounds Japanese silk which represents 91% of total Japanese production.
1923	49,506,000	
<hr/> U.S. consumption of the world's known production of silk. <hr/>		
1910-1914	35%	
1921	65%-----	this includes over 90% of total Japanese production.

Source: Leslie A. Wheeler, "International Trade in Raw Silk" Trade Information Bulletin No. 238. (Washington, D.C.: Bureau of Foreign and Domestic Commerce, November 1924), 8,16.

Several significant points emerge from from Table 1.8. First, it is is evident that U.S. silk textile production was able to increase at the rate it did between 1913 and 1923 because raw silk imports increased so much and that the U.S. silk industry was heavily dependent upon Japanese raw silk supplies.⁵² Also American consumption of 65 percent of world raw silk production explains why U.S. manufacturers were able cater to consumer taste for silk on such a grand scale in the 1920s. Although raw silk shortages and other problems dogged the industry immediately after the armistice, the import volume in 1922, seen in Table 1.8, suggests stability and the prospect of industry growth.⁵³

The saga of the shipment of raw silk half across the world conveys something of the reality of the enormous import figures and a sense of the times. Where 19th-century clipper ships took 90 to 100 days to sail round Cape Horne and deliver cargoes from the orient and Japan, in the mid-1920s steamers crossed the 8,300 miles from Yokohama to Seattle or San Francisco in 10 days. A highly streamlined system ensured that raw silk shipments, often as much as 12 million dollars worth at a time, were unloaded within four hours of arrival and sealed into

special waiting trains known as reefers.⁵⁴ Sometimes a total of forty car loads made up as many as fifteen separate trains. Heavily guarded against theft, reefers broke speed limits and took precedence over all other trains--goods or passenger. On average in 1927 reefers took 85 hours from Seattle to Hoboken. There was no faster way of crossing the country except by air and the silk documents were sent on ahead that way. Saving a day, or part of a day, in transport time saved on interest due on bonds and insurance taken out to cover purchases and affected the price per bale in New York.⁵⁵ Of course this exotic and expensive journey shows that silk supplies were highly vulnerable to delays--unlike rival filaments produced in the new U.S. rayon factories by this time.

A study of raw materials consumed by other branches of the textile industry shows wool and cotton exceeded silk in both volume and value of finished products. When figures are compared in terms of growth between 1909 and 1919, silk is the leader, signifying continued demand and substantial imports of raw silk as noted in Table 1.8.⁵⁶ These statistics and unshakable confidence in the market for silk are reflected in a Commerce Department report of 1924, which states that: "It is apparent that the silk industry is playing an increasingly important part in the textile industry of the United States."⁵⁷ This reasoning appears to be born out by the numbers but a more perceptive interpretation of the data might include the caveat "inexpensive rayon is playing an ever growing role and is likely to exert a significant influence before long."

Bountiful supplies of ever cheaper rayon filament, noted in Table 1.9, were transformed into increasingly more attractive washable rayon fabrics that

impacted on consumer preferences and forced the pace of change. The development of rayon crepes in 1927 added to the fabric's appeal and demand expanded even further.⁵⁸

Table 1.9.--Comparison of the average price of rayon and silk 1923-1932.

YEAR	SILK	RAYON.
1923	\$8.65 per pound	\$2.00 per pound
mid 1920s	\$7.65	\$2.80
1929	\$4.39	\$1.50
1932	\$1.56	\$0.25

Source: Melvin T. Copland and W. Homer Turner, Production and Distribution of Silk and Rayon Broad Goods, prepared for the Textile Foundation, Inc. the National Federation of Textiles, 1935, 2; Manufactured Fiber Fact Book (Washington, D.C.: American Fiber Manufacturers Association Inc., 1988), 2-3.

The mid-twenties were watershed years for the silk industry.⁵⁹ The drastic fall in silk and rayon prices (recorded in Table 1.9) gluts caused by uncontrolled production and the need for capital investment in efficient, wider (48 to 72 inches or more) looms contributed to a gradual industry reshuffle and many mill closures. Other pressures contributing to reorganization came from the modern well organized ready-to-wear industry that served (and stimulated) rapid fashion changes. The situation called for better fabrics and designs, better co-ordination between fabric and garment makers and a more streamlined distribution system.

Traditionally integrated mills, the most stable manufacturers, bought raw materials, prepared the threads, wove and finished the fabric to fill orders for their own customers.⁶⁰ They rarely sold unfinished (greige) cloth. In the late 1920s a new practice became commonplace. Converters commissioned mills to weave greige fabric, shipped the goods to a finisher (dyer or printer) and finally sold the (converted) goods to garment makers. Commission weavers merely provided the

service of weaving. Since they only performed the weaving process these mills did not require capital to buy raw materials. Failed stock-carrying mill operators often subsisted by undertaking commission weaving for converters.⁶¹

Converters played an increasingly dominant role. Their mode of operation accommodated the quick decisions required in a fluid fashion market and funnelled fashionable fabrics to garment makers in a timely way. Converters gambled as they made decisions about what would be popular next season. They took the risks but they also made the profit that previously accrued to stock-carrying mills that made and finished their own goods. By 1930 more than half the quantity of finished silk and rayon textiles used by garment manufacturers was channelled via converters as opposed to those directly sourced from mills.⁶²

As the industry restructured to combine silk and rayon manufacture business functions were separated. Where mills previously carried out production, merchandising and selling now these became different operations.⁶³ The two kinds of producer were the regular manufacturer who bought and made up raw materials and commission weavers who sold the service of looms and wove up raw goods supplied by converters. Distributors now consisted of converters who finished the raw goods and cutters-up who took the finished merchandise and prepared it for retailers in the form of garments. While these and other fundamental industry and market changes played a major role in the demise of traditional silk manufacture in the late 1920s, this protected (see below) industry had been steadily undermined by decades of rampant overproduction that debased silk and kept profits slim.

The Tariff and the Silk Industry

Any review of the U.S. silk industry must take the Tariff into account. Although numerous elements contributed to the development of this silk industry, the single most outstanding factor remained the continuous high import tariffs dating from the 1860s. As the Secretary of the Silk Association of America wrote in 1880s, "If [the tariff] had vacillated during the last ten or fifteen years, we should have no story of [silk] improvement to tell."⁶⁴ The Tariff Act of June 30, 1864, raised the duty on manufactured silk goods made outside America from the existing 24-40% to an ad valorem rate of 60% for the purpose of generating revenue to help pay the national debt after the Civil War.⁶⁵ This tax hike increased silk revenues from the prior average of five and a half million dollars annually to fourteen million. The sole reason for the imposition of the tax was indeed for revenue and not, as might be interpreted, to create a protected industry--although that was the unintended outcome.⁶⁶ Once the tariff made silk imports even more expensive than in the past, American manufacturers recognized that any domestically produced silk goods would cost far less than their foreign counterparts.

Nevertheless silk industry growth should not be attributed entirely to the tariff. Its expansion evidenced the existence of pent up demand (discussed in Chapter IV) and the increased purchasing power of the burgeoning middle-class population. Studies of rising consumer cultures show that demand is usually in the vanguard of production and is one of the prerequisites necessary to prompt

large scale manufacture.⁶⁷ Thus in the second half of the 19th century with its steadily increasing middle-class consumer market American silk manufacturers, as discussed earlier, employed initiative and innovation in the scramble to manufacture affordable silk products that ever growing numbers of fashion conscious consumers were anxious to buy. The pace of progress is reflected in census records which show that imports of tax free raw silk (to make threads for the manufacture of silk products) quadrupled between 1860 and 1870, and that on average U.S. silk goods manufacture more than doubled every decade. From 1860 to 1905, a span of 45 years, the level of annual production of manufactured silk goods leapt from about 4 million to 118 million dollars a year. This increase raised the U.S. to the status of largest silk manufacturing country in the world.

Over time imports remained consistently at about thirty percent of all silks consumed in the U.S. They never represented real competition however, because they constituted different categories of goods. Imports were either very low grade or the most luxurious high fashion silks, whereas American silks were predominantly medium quality. Because there was no competition for these uniquely American medium quality silk fabrics, questions arose as to the need for the silk tariff once it had served its original purpose and the war debt was cleared. However a mood of resistance to the idea of abandoning silk import duties prevailed because the industry originated under the protective umbrella of 1864 Tariff Act. From the start silk manufacturers knew exactly how the land lay regarding tariffs in other branches of the textile industry. Mr. Dale, 1st Vice President of the Silk Association of America, stated in an address at the Society's first meeting in 1873:

There is another feature, very little understood. Many persons think that the silk industry is fostered under extraordinary protection. Well, if sixty percent is an extraordinary protective tariff, then it is. But, gentlemen, this is among the lowest of articles protected. While cotton, wools and worsteds have their duty specific [itemized] and ad valorem [invoice value], amounting to eighty and sometimes as high as ninety percent we have but the ad valorem duty. This, gentlemen is a thing we ought to disseminate among the people, and so make known to them the merits of our goods, as well the merits of our trade.⁶⁸

In the following year, 1874, the Secretary of the Silk Association prepared a report and membership list for inclusion in the United States Textile Manufacturers' Directory, comprising Woolen, Cotton, Silk, Jute, Flax and Linen Establishments. This publication provides a measure of the way textile industries cooperated and maintained a level of awareness of what was mutually beneficial, not least the pursuit of effective influence in legislative circles. Also the older established textile industries led by the well organized National Association of Wool Manufacturers, welcomed the newest member of the American textile family--silk--and supported the silk tariff.⁶⁹

U.S. silk manufacturers attitudes to protection was influenced by a number of factors. One, evident in contemporary (1870s) industry literature, was fear that old established European, specifically German, silk producers were prepared to break the young American industry by selling their products at artificially low prices in order to beat the tariff.⁷⁰ In other words, to practice what in today's parlance is called dumping. An additional anxiety stemmed from the specter of devastation wrought by silk free trade in England, "closing mills. . . beggaring owners and thousands and tens of thousands of worthy workers."⁷¹ American novice silk manufacturers knew about this all too well.⁷² Alongside some English

silk entrepreneurs who re-established themselves in America, many U.S. silk producers benefitted through the purchase, at nominal cost, of disused English equipment and by the employment of immigrant English silk operatives after the Cobden Chevalier Treaty of 1860 allowed cheap French silks to flood English markets and devastate its venerable silk industry.⁷³

As a consequence of manufacture's conviction that the success of the American silk industry depended upon high duties, it became the norm to mount strong pro-tariff arguments to influence legislative action when duty schedules and changes in the system came under review as they did with new Tariff Acts in 1883 and later in 1890, 1909, 1913, 1920 and 1922.⁷⁴ Researchers note that, buried among the pros and cons of protectionist arguments and differing industry opinions as to appropriate levels of duty, sometimes the legislature set a rate higher than manufacturers felt adequate for their purposes. Such findings suggest that long after the Civil War tariff completed its task as a money raiser, import duties on luxury silks retained a practical function as an exigent revenue source, especially for purposes of deficit reduction.⁷⁵ Thus the government found it convenient to support a silk tariff regardless of public and industry views and the whole protectionist issue.

Over time protectionist theories shifted. At first there was the notion of the protection of a young vulnerable industry until it became firmly established. Later the idea of protecting jobs moved to the fore. As they risked capital and created jobs, entrepreneurs believed they deserved support to keep mills and jobs going. They also argued for protection because American labor was more

expensive than European and thus U.S. production costs were higher. Opinions, however, vary as to whether that was indeed the case and studies that attempt to analyze silk workers' wages and the cost of living in America and Europe are subject to a variety of interpretations.

The tariff countered what was perceived as the foreign wage advantage. Charles Cheney, of South Manchester, Connecticut, one of the silk industry's most vociferous lobbyists, charged to its defence in 1909 after Andrew Carnegie, safe in his "impregnable position" in the steel industry, queried justification for the protection of any industry. Cheney jousted with Carnegie in the New York Times letter columns where he explained the silk industry's position:

In the large majority of cases, we cannot hope that inventive skill, superior organization and better business methods will be factors large enough to overbalance the extra cost of labor . . . We must frankly admit that we cannot manufacture cheaply and at the same time pay the largest wage of any country in the world without a protective tariff.⁷⁶

In his reply Carnegie acknowledged, among other things, the usefulness of silk revenues to government but expressed disapproval of "perpetual protection." He also aired the naive assumption that consumers always favor the domestic product and therefore home producers inevitably maintain an advantage. "It is human nature that the home article of equal quality should be preferred; except as fashion may come in, in which economists cannot take account. Price here does not govern."⁷⁷

Carnegie also touches on a fundamental given of the silk industry here. It is silk's close association with fashion that is both the strength and the weakness of the whole silk business. On the one hand, ever changing fashion creates markets but on the other, from the manufacturer's point of view, it also sways taste

so that production--hyped up to ride the season's wave of demand--often left firms stranded with an unsaleable surfeit of goods if a new vogue suddenly surfaced. When left behind by fashion's tide, overproduced in the old line but minus an up-to-date new one, companies missed out twice over. In short, unlike many other modern industries, as historian Philip Scranton observes, the silk industry "responded to erratic demand rather than shaping it."⁷⁸ The situation was made worse by the tendency to keep making what appeared to be selling instead of paying attention to the incoming trends. Because the passe goods had to be sold off cheaply they contributed to the pervasive glut of inexpensive silks.

Although foreign competition dominated the Cheney-Carnegie exchange, the real problem was chronic domestic overproduction. It stemmed in part from the problems already discussed and also from the fact that different from most other industries, silk manufacture in 1910 as in 1885 "had immoderately small entry costs" and still depended on a wide variety of specialist firms (throwsters, dyers, finishers).⁷⁹ The industry's structure "prevented effective price management" and manufacturers could not agree on price fixing.⁸⁰ The resultant overproduction and stiff competition hampered responses to change, kept prices low and profits marginal. These problems are evident even from Sears' catalogue, which regularly offered bargain priced silks--acquired in immense quantities "under market value at a forced sale" or "the entire residue stock of one of the biggest mills"--likely last seasons' left over stock purchased as a bargain through an agent or by auction.⁸¹ Pressures grew as firms expanded in scale and conducted operations from a city office far from

the industrial plant. Mill owners and managers, ensconced at headquarters, immured in the day-to-day sales of goods, purchases of supplies, style decisions and monthly provisions of money for labor and raw materials, discovered that their plans were subject to a variety of fluctuations--in production volume, market prices, changing consumer tastes and other causes which impacted on the financial success or failure of the season.⁸² Success was hard to come by in the over saturated staple silk market. The glut however allowed consumers to enjoy a bonanza of cheap silks while manufacturers wallowed in a nightmare. Their dread of heavy expenses incurred by idle looms caused them to keep production going, and cut prices to move goods to generate cash flow and, hopefully, some profit. However many mills had no accurate idea of production costs and sometimes thought they sold at a profit when in fact they made a loss.⁸³

Managers of large concerns, often stumped by the complex web of expenditures, had neither the time nor the ability to unravel it all.⁸⁴ This is not to say that no account systems were in use, rather that, even as late as 1913:

as to those classes of accounts which will show the money making or money losing factors in the business, the fact is that they are too often hopelessly neglected. . . . The consequence is, that in the case of mills whose operations are anyway large, the proprietors at stocktaking may have no idea within tens of thousands of dollars as to the profit or loss which will be shown at the closing of their books. [emphasis added] ⁸⁵

In light of this situation it can be assumed that many of the failed manufacturers were victims of their own inadequate accounting. To combat this problem companies adopted modern methods of cost accounting and other new "scientific management" strategies of the era often promoted by specialist silk

consultants to contend with the silk industry's endemic problem, "the keenness of competition in modern business."⁸⁶ Another new approach to dealing with fierce domestic competition between little differentiated staple silks was the concept of contriving to increase demand through advertising, the notion of a product brand name and the development of brand name loyalty.⁸⁷

Name recognition contributed to stability of the kind enjoyed by Maine's silk manufacturer, the Haskell Silk Company of Westbrook, through the first decades of this century. For a long unbroken period, known by name in stores accross the country, Haskell silks successfully navigated the congested market before they finally wavered under the stress of market change and inherent industry problems in the 1920s. While Haskell is distinguished as one of the few firms that achieved wide name recognition, in other respects this company's pattern of development in many ways parallels the American silk industry's evolution and demise.

NOTES.

- 1 Walter Licht, Industrializing America. The Nineteenth Century (Baltimore and London: The Johns Hopkins University Press, 1995), 98.
- 2 L. P. Brockett, The Silk Industry in America. A History Prepared for the Centennial Exposition. 1876 (New York: George F. Nesbit & Co. Printers, 1876), 131.
- 3 Ibid., 129.
- 4 W. C. Wyckoff, Silk Manufacture in The United States, 1883, Compiled by the Silk Association of America, Special Agent for the Tenth Census of the United States (New York: 446 Broome Street, 1883). In a section on the history of American silk this report cites numerous details from contemporary accounts of early colonial efforts to promote sericulture. Exaggerated descriptions painted a picture of New World silk worms and their cocoons as bigger and better than those produced elsewhere. See 10-13 and passim.
- 5 Ibid., passim.
- 6 Ibid., 18; William C. Wyckoff, American Silk Manufacture (New York: The Silk Association of America, 1887), 8.
- 7 The report of tons of silk is apparently an exaggeration. Wyckoff, Silk Manufacture, 33.
- 8 Ibid., 10.
- 9 Ibid., 34.
- 10 Ibid., 33.
- 11 The first, not very successful, efforts to use power and machinery for silk went on parallel with Slater's and others development of mechanization and industrial production on cotton in the early 19th century. Cotton developments are described in Jonathan Prude, The Coming of Industrial Order, Town and Factory Life in Rural Massachusetts, 1810-1860 (New York and London: Cambridge University Press, 1983); also see, Wyckoff, American Silk, 13-15.
- 12 Comment from a survey of recently published New England regional and town histories examining various aspects of developments in production and consumption in the late 18th and early 19th centuries. Gordon S. Wood, "Inventing American Capitalism," The New York Review, (June 9, 1994), 48.
- 13 Walter Licht, Industrializing America (Baltimore and London: The Johns Hopkins University Press, 1995), 22-35, ff.
- 14 Prude, 3-133.
- 15 On a very small scale trimmings, other decorative narrow goods and "coach lace" were manufactured in the Philadelphia area as they had been since the late 18th century.
- 16 Ibid., 16-22; In the 1820s evident demand encouraged both sericulture and efforts to manufacture silk goods. Franklin Allen, The American Silk Industry Chronologically Arranged (New York: Silk Association of America, 1876), 7.

17 Ibid., 16.

18 Licht, 4.

19 No one expected that the growth of silk manufacture would result in the demise and disappearance of domestic sericulture. Wyckoff, American Silk Manufacture, 33.

20 Details of cotton and wool developments, crowded product markets and specific types of business structures in those industries are outlined in David J. Jeremy, "Innovation in American Textile Technology During the Early 19th Century," Culture and Technology 14 (January 1973), 40.

21 Ibid.

22 Wyckoff, Silk Manufacture, 42-54; Brockett, 89.

23 Brockett, 88, explains that improved re-reeled silks were first known as "re-reeled Canton." He also refers to the problem of maintaining improvements.

24 Frank R. Mason, "The American Silk Industry and the Tariff," American Economic Association Quarterly 11 (December 1910), 16; Brockett, 89.

25 Brockett, 17. The American industry preference for thicker coarser silk (relative to that traditionally used on oriental hand looms) prompted the Chinese to profiteer by weighting reeled silk with acetate of lead to make finer reeled silk seem thicker and weigh heavier in bales.

26 Starting in 1847 French and Italian silk worms were decimated by pebrine disease. Eventually it was discovered Japanese silk worms were more resistant, hence the start of trade in grain. In 1875, however, Pasteur found a way to prevent the disease and the need for Japanese grain soon evaporated. Only after this did the Japanese concentrate on sericulture and silk reeling for the American market. Shichiro Matsui, The History of the Silk Industry in the United States (New York: Howes Publishing Company, 1930), 9-10.

27 Ibid.

28 Mason, 18-10

29 Ibid., 29.

30 Ibid., 36.

31 J. A. Iredale and P. A. Townhill, "An Early Silk Comb," Textile History 2 (December 1971), 1. See details of English patents for silk spinning machines in the 1830s, 59-61.; Brockett, 104, describes early 19th-century domestic home-weaver's efforts to spin and weave up waste silk in Connecticut.

32 Wyckoff, Silk Goods, 37, ff.; H. T. Gaddum, Silk. How and Where It Is Produced (Macclesfield, Cheshire, England: Gaddum and Company, 1979), 51 ff.

33 Wyckoff, Silk Manufacture, 63.

34 Richard D. Margrove, "Technology Diffusion and Transfer of Skills: Nineteenth-Century English Silk Migration to Paterson" in Philip B. Scranton, ed., Silk City. Studies on the Paterson Silk Industry, 1860-1940 (Newark: New Jersey Historical Society, 1985), 9-34.

35 Ibid.

36 William. C. Wyckoff, The Silk Goods of America: A Brief Account of Recent Improvements and Advances of Silk Manufacture in the United States of America (New York: 44 Howard Street, 1880), 48-49.

37 Wyckoff, Silk Manufacture, 62, cites a letter by Mr. John E. Atwood of Connecticut, September 27, 1881, in which numerous mechanical innovations and developments are described.

38 Ibid.

39 Philip Scranton, "Manufacturing Diversity: Production Systems, Markets, and American Consumer Society, 1870-1930," Technology and Culture 35 (July 1994), 3; Philip Scranton, Proprietary Capitalism. Textile Manufacture at Philadelphia 1800-1885 (Cambridge and London: Cambridge University Press, 1983), 4; Mason, 40; Matsui, 46.

40 Scranton, Manufacturing Diversity, 3, ff.

41 Wyckoff, American Silk Manufacture, 34.

42 Mason, 40-41.

43 Wyckoff, Silk Manufacture, 51.

44 Ibid., 50.

45 Licht, 104-5.

46 Ibid., 126-129.

47 Ibid., 44.

48 Mason, 50-5.

49 Philip B. Scranton, "Structure and Process" in Silk City, 64.

50 Matsui, 177-178.

51 Although the amount of rayon seems almost as much as silk rayon is much heavier than silk so there was not as much as this seems at first glance. Still, the quantity is significant and of course continued to grow.

52 Matsui, 111-112, points out that growing awareness of the immense import volume combined with the difficulties experienced since the war--price gouging and speculation--set off warning bells in America and drew attention to the vulnerability which stemmed from the Japanese monopoly. As a result, ongoing efforts to improve Chinese silk were further stimulated with the goal of creating an alternative source.

53 Ibid., 108-109, cites difficulties that rippled through the international silk market after the armistice as Japanese silk production, reduced during the war, struggled to recover. There was also Japanese speculation and other problems stemming from American manufacturer's erratic buying habits.

54 American Silk Journal (October 1924), 79-80, 96; ASJ (June 1927), 61. Silk was so valuable that theft in transit in and around silk centers was a major problem.

55 Ibid

56 Leslie Wheeler, International Trade in Raw Silk. Trade Information Bulletin No. 383 (Washington: Bureau of Foreign and Domestic Commerce), 2.

57 Ibid.

58 Melvin A. Copland and W. Homer Turner, Production and Distribution of Silk and Rayon Broad Goods (New York: The National Federation of Textiles Inc., 1953), 18.

59 Wood, 100-101, states that after 1926 the use of rayon, especially the new crepes, in dress goods increased steadily, whereas all-silk yardage declined more than 50 per cent between 1929-1933.

60 Copland and Turner, xiv and 1-2.

61 Ibid, 50.

62 Copland and Turner, 43-49.

63 Ibid., 51.

64 Ibid., 8.

65 Mason, 56.

66 Ibid.

67 Factors that contribute to social mobility and changing patterns of consumption are discussed in Elizabeth Gilboy, "Demand as a Factor in The Industrial Revolution," reprinted in R.M. Hartwell, ed. The Causes of The Industrial Revolution in England (London: Methuen, 1967), 121-138.

68 From an after dinner speech by Thomas Dale, 1st Vice-President of The Silk Association of America on the occasion of the Association's 1st Anniversary Dinner. It was held on May 14, 1873 at Delmonico's, Broadway, where "after partaking of a sumptuous feast at which 48 sat down," Mr. Dale, and many others spoke. Annual Report of the Silk Association of America. 1873, 26-27.

69 Franklin Allen, Manual of the American Silk Trade 1873 (New York: 93, Duane Street, 1874), Introduction.

70 Brockett, 129.

71 Ibid.

72 Brockett, 70, relates that many manufacturers like the John Stevens Company of New York and Staten Island bought machinery in 1865 at very low prices from England after the Cobden Treaty.

73 The Cobden Chevalier Treaty allowed French woven silks into Britain duty free but English silks to France had to pay a 30 percent duty. As a result inexpensive French silks flooded the English market as explained in Sarah Bush, The Silk Industry (Princes Risborough, England: Shire Publications Ltd., 1993), 7.

74 See Matsui, 154-163, for discussion of ad valorem charges versus itemized charges.

75 Mason, 87; Matsui, 165.

76 New York Times (January 10, 1909), 12.

77 Ibid.

78 Philip Scranton, "An Exceedingly Irregular Business: Structure and Process in the Paterson Silk Industry, 1885-1910" in Scranton, ed., Silk City, 55.

79 Scranton, Silk City, 64.

80 Ibid., 64, 76.

81 Sears, Roebuck and Company, 1902 Catalogue no. 117: The Great Price Maker (Northfield, Illinois: Digest Books, 1971), Abridged reproduction.

82 James Chittick, Silk Manufacturing and Its Problems (New York: James Chittick, New York, 1913), 191.

83 Ibid., 398.

84 Ibid., 192.

85 Ibid.

86 Chittick, 80a, uses these words in his advertisement of his services as a specialist silk industry consultant.

87 Stuart Ewan, All Consuming Images (New York: Basic Books, 1988), Chapter 3, 41-53; Daniel Boorstin, The Americans. The Democratic Experience (New York: Random House, 1973), 146-8; Chittick, 303-305.

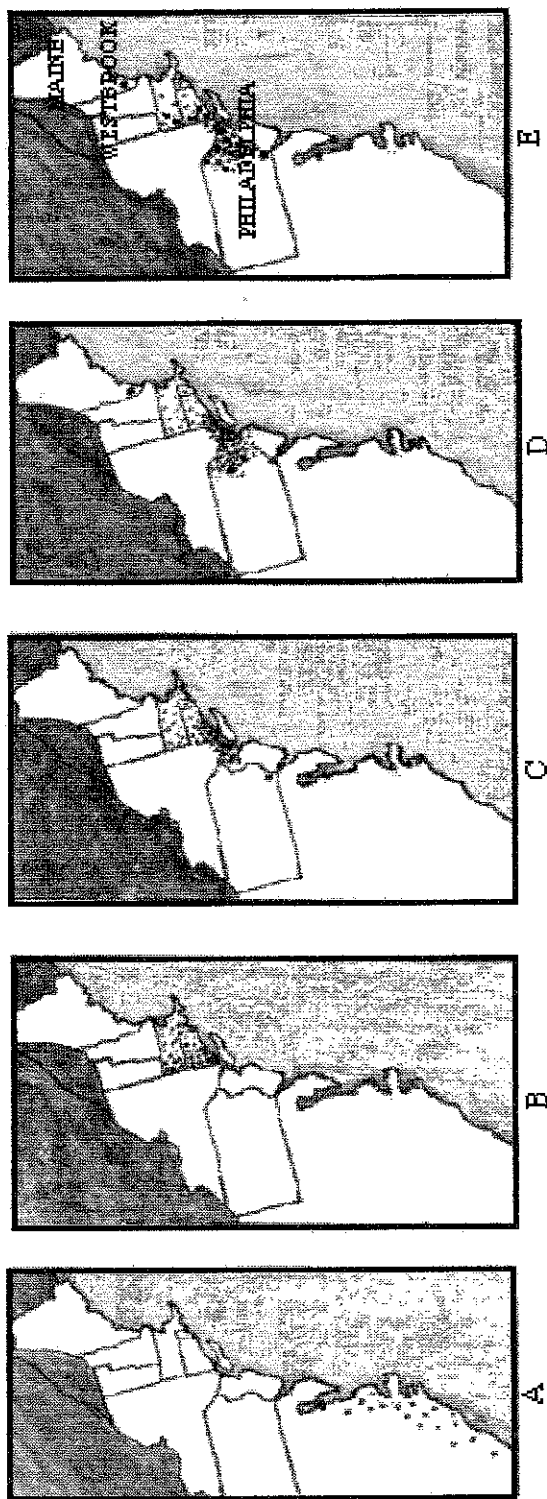


Figure 1.1. Geographic distribution of sericulture and silk manufacture. A, colonial sericulture; B, post-Revolution sericulture and industry growth in southern New England; C, post-Civil War manufacturing shift to New York and northern New Jersey; D, late 19th century move into Pennsylvania; E, Westbrook's location in relation to the silk industry as a whole.

Note: There were short lived ventures into both sericulture and manufacture in other locations.

CHAPTER II

THE HASKELL SILK COMPANY 1874-1930

Establishment and Expansion 1874-1882

The Haskell Silk Company can be counted among the companies that originated and flourished after the 1865 tariff created a window of opportunity for American silk manufacturers. By 1874, the date of the Westbrook mill start-up, the center of silk manufacture had shifted from southern New England to New York and neighboring New Jersey where, as we have seen, sites amenable to silk textile production attracted a combination of new and relocating silk mills. New England nevertheless retained a concentration of its silk establishments, primarily in Connecticut and southern Massachusetts. The new company, Haskell, was situated much further north, on the Presumpscot River in Maine.

Because Westbrook, Maine, was so remote from the hub of the U.S. silk industry, the presence of a silk mill in its midst poses some interesting questions. What attributes were present in Westbrook to make the town a site conducive to successful silk manufacture? How did the company come into being? How was it organized and operated, by whom and for how long? How does it compare with others in terms of size? What kind of silk fabrics were produced? What influence, if any, did the location have on the mill set-up, the type of goods manufactured and the way they were marketed?

The firm began as one of New England's numerous sewing thread and machine twist manufacturers during the 1870s when the proliferation of sewing machines created high demand for this special new type of thread that was able to stand up to the high speed and friction of machine stitching.¹ Originally sewing machine twist was perfected at the Nonotuck Mills, Florence, Massachusetts, in 1852, under commission from Isaac Singer to support the launch of his sewing machine business. Although machine twist manufacture quickly spread to other states, a concentration of machine twist production remained where the industry was first established--in New England. An 1875 regional survey (which does not include the newly founded Haskell Company) shows that 19 of Connecticut's 24 silk manufacturers, 12 of Massachusetts' 14 silk companies, and each of New Hampshire's and Vermont's solitary silk firms to be sewing twist manufacturers.² At least two of Connecticut's twist mills, Brown's of Middletown and Holland's of Willimantic, in 1871 and 1872, respectively, constructed new plants to accommodate expanded machine twist production.³ The 1875 survey also indicates that out of 2,600 individuals engaged in silk manufacture in Connecticut approximately half were twist operatives while almost all of Massachusetts's 1250 silk workers, all of New Hampshire's 19 and Vermont's 8, were likewise employed making twist.⁴

The Silk Association of America collected statistics for its 1874 and 1875 records, but the Haskell Company was seemingly established too late to appear in those reports. This new sewing thread and machine twist firm drew Maine into the New England silk scene. From a modest start, in a small wooden building near

Saccarappa Falls (Fig.2.1) with a mere 6 employees, the Westbrook mill quickly showed signs of becoming one of those companies the Silk Association of America would describe as "late starters risen to eminence."⁵ By 1880 the firm's performance--in proportion to capital invested--outstripped that of other previously established small companies. Grown from the original 6 to 60 employees Haskell was no longer a small concern. This rapid expansion is all the more notable since it was achieved during years of stiff competition and economic depression.⁶

A sense of the company's shape and direction emerges from this entry in American Silk Goods Directory of 1880:

MAINE

Haskell Silk Co. James Haskell, President, Frank Haskell, Treas.
Sewing Silk, Machine Twist, Organzine, Tram and Fringe Silk.
Kingman & Freeman, Selling Agents, 57 Mercer Street, New York.
Mills.....Saccarappa.⁷

Only 5 years into the business, the firm already offered a diversified product line. This was a practical decision prompted, no doubt, by widespread overproduction of twist. The twist glut caused "sharp and continuous" competition prompting price-cutting, discounting and other destabilizing selling practices throughout the industry which kept profits marginal despite high demand and full order books.⁸ This situation made machine twist manufacture less attractive for new venture capital; indeed only one new twist company opened in 1880s whereas the number of concerns engaged in the production of other classes of silk textile goods continued to increase.⁹

In step with the times, the Haskell Company branched out yet again. The Silk Journal announced in the November 1882 issue that:

The Haskell Silk Co. of Saccarappa, Maine is running 20 looms on black grosgrain (weft ribbed fabric) having discontinued the manufacture of twist a number of months ago. They also manufacture tram and organzine. (threads for weaving, not sewing) ¹⁰

The shift lifted the company from the saturated ranks of twist producers and situated it in the new field of broad goods manufacture. At this time, as discussed earlier, a number of factors made U.S. broadsilk production possible--the availability of mechanized looms, the gradual increase in raw silk supplies from Japan and immigrant labor. The new scenario encouraged many thread manufacturers to desert their original New England thread mills and relocate close to the source of raw silk, New York. New silk mills proliferated among the existing Paterson and New Jersey trimming and ribbon manufacturing companies many of which transitioned into broadsilk at this time.¹¹ However, the Haskell Silk Company remained in Westbrook. The silk weaving operation prospered and although the wooden premises were expanded several times, the plant remained in town, on Bridge Street. (Fig. 2.2) By 1902 the Haskell Company's success allowed them to erect a new mill, only a short distance from the original building. (Fig. 2.3)

Many new silk mills were constructed in first decade of the twentieth century. The isolated Haskell factory was the most northerly; the majority were in Pennsylvania. Although some of the new Mid-Atlantic mills built during this period of industry expansion and migration constituted the largest in the industry, huge mills did not predominate, and no Lowell or Lewiston style

complexes were developed for silk production. Small and medium scale factories were the norm.

Table 2.1.--Size of silk manufacturing plants in the 1920s by average number of wage earners.

STATE	NUMBER OF PLANTS	EMPLOYING							
		1-5	6-20	21- 50	51- 100	101- 250	251- 500	501- 1000	OVER- 1000
U.S.	1,369	150	327	340	232	218	69	19	14
Conn.	41	1	7	10	5	11	2	2	3
Md.	6	--	1	1	--	3	1	--	--
Mass.	21	--	3	5	4	5	1	1	2
N.J.	686	109	227	171	98	65	14	1	1
N.Y.	181	21	49	47	27	22	12	3	--
Pa.	375	4	35	93	93	100	34	8	6
R.I.	30	4	4	8	4	5	3	2	--
V.A.	10	--	--	4	5	1	--	--	--

Source: 1920 census vol. x, p.220 cited by Shichiro Matsui, The History of the Silk Industry in the United States (New York: Howe Publishing Company, 1930), 39.

Table 2.1 shows that of 1,369 silk manufacturing plants in the U.S., only 14 employed over 1000 workers and at the other extreme 150 silk operations were very small employing 5 or less than 5 people. Just over 75 percent of companies the employee count ranged around 50 workers. Haskell in its peak years, 1900 to 1919, employed between 200 and 275 workers and therefore stood among the average to larger mills. This finding, however, needs to be considered in context. Many of the other similarly sized factories were part of a chain and specialized in throwing or weaving. The Westbrook mill presents a different case as it functioned independently as an integrated operation carrying out its own throwing, weaving, dyeing and finishing. Although located on the northern periphery of silk manufacture, in terms of size, as Table 2.1 evidences, it is on a par with many silk factories in Pennsylvania and New Jersey. These Mid-Atlantic silk

manufacturing plants were deliberately introduced into southerly communities to take advantage of cheap labor and fuel. Unlike these factories the new brick Haskell facility represented the expansion of an existing local industry. Also different, the Haskell owner lived in the community.

How significant was the geographic locale for this company and what attributes made the Westbrook site amenable to silk manufacture? There are no early renderings to show what the landscape around Saccarappa Falls looked like before the town developed. However because Westbrook remained small, it is not too difficult to look at the falls on the broad curve of the river and understand why the natural topography of this formerly forested terrain attracted cultivation and industrialization. First, for the indigenous population, the falls provided a ford and salmon harvesting site while the flat river embankments made good corn growing fields. Later, as lumber extraction proceeded in this still frontier territory, 18th- and early 19th-century European settlers perched small saw mills on the rocky island and river banks. Gradually Saccarappa developed an identity as the point where the river swung northeast and the busy timber haulage route forked away south towards Portland's harbor, ships and the sea, five miles ahead.

(Fig. 2.5)

During the first decades of the 19th century artisanal entrepreneurs moved north to Maine. A cluster settled in the outskirts of Westbrook on the main route north. Here, at a locale eventually known as Stevens Plains, a small pre-industrial manufacturing colony grew. Zachariah Stevens was one of many painted tinware makers. Other artisans made pewter, combs and brushes. The essential service, distribution of goods through remote Eastern Maine and New Hampshire, was

carried out by peddlers who by the 1820s tracked supplies of home-made silk sewing thread, obtained from Massachusetts or Connecticut or perhaps the product of barter with local Maine women. The latter speculation is supported by the legacy of local mulberry trees, evidence of Maine's participation in early sericulture efforts and by examples of hand-made silk thread exhibited in Portland in the 1830s.¹²

On the river, a short distance from this manufacturing settlement, numerous small sawmills and several grist and fulling mills operated at Saccarappa which still maintained something of the character of a frontier lumber station.¹³ According to nail maker Joseph Valentines' son, Leander, who was a boy in 1820, the place was:

a mere hamlet consisting of perhaps a score of improvised, unpretentious and unpainted abodes . . . [there] were two short parallel streets running from the main road to the river on which were a few houses. Above and near was a squad of miserable tenements, called in derision the "Holy Ground." . . . To accommodate the fast increasing amount of travel from the great back country to Portland a hotel was built and opened in 1820.¹⁴

The hotel mentioned here evidences growing levels of commerce and exchange as the rural population, as elsewhere in northern New England, supplemented income with the products of "home work" and small manufactories--items such as wooden goods, home-woven textiles and artisan made boots. In this pre-industrial age these manufactured commodities flowed from Portland's hinterland to coastal merchants who supplied growing urban centers.

If the hotel signified one kind of change in and around Saccarrappa, the outside focus on the Presumpscot River heralded another. In the wake of 1820s textile mill developments in Lowell, Massachusetts, major rivers and falls became

the subject widespread speculative interest. In 1829 the Portland Manufacturing Company established the first cotton textile operation on the Presumpscot River at the Saccarappa Falls. Although this project, a duck and twine mill, preceded cotton weaving developments at Lewiston, Maine (1844), Saccarappa never evolved into a textile manufacturing site on the grandiose scale of Lowell, Lewiston or neighboring Saco/Biddeford. Compared with those mill complexes, textile operations on the Presumpscot River at Saccarappa remained relatively small scale, even after factory expansions in the late 19th century. In this vicinity major industrial growth was in paper manufacture with the S. D. Warren Company (1854), a mile down river at Congin Falls.

In mid-century Saccarappa, (interchangeably called Westbrook) had no Lowell scale textile developments, yet it was far from being unindustrialized.¹⁵ The river was always full of lumber and in addition to its cotton and woolen textile operations the growing, bustling community housed a host of small industries which produced a range of goods from clapboard to shingles, cotton batting to loom harnesses. Near the falls, some have claimed, there was a small silk manufactory operated by a Mr. Vogel.¹⁶ It is unclear whether his operation dated from the multicaulis days or whether it represented an example of the '50s renewed exploration of silk manufacture. There is no documentation other than the 1858 recollections of a member of the Haskell family:

Then (there was) the old silk mill built by Mr. Vogel and run by him until one night it was broken into and all the silk stock taken. After that he gave up the business. Afterwards the mill was used for harness making.¹⁷

It is not possible to ascertain if Vogel ceased production before 1858 or continued beyond that date or whether he processed local silk (pockets of sericulture existed here and there) or whether he was plugged into the broader commercial picture and used supplies of imported silk. The diminutive size of the operation and the apparent time frame suggest that he most likely made hand sewing thread for the local market.

In the 1850s Massachusetts entrepreneurs continued to look to Maine for opportunities. Samuel D. Warren of Boston and James Haskell of Cape Anne both moved north and integrated their respective industrial enterprises into the Westbrook environs. On the site of an earlier endeavor the S. D. Warren Paper Company, situated on Presumpscot River's Congin Falls, began operations in 1854. In 1858 James Haskell of Cape Anne established the Westbrook Manufacturing Company which replaced and expanded the Portland Manufacturing Company at Saccarappa. The renamed Westbrook cotton operation and existing small wool textile plants were joined in 1866 by yet another, the Dana Cotton Warp Mill. Founded by a Portland entrepreneur, the warp mill was destined to become one of Westbrook's major manufacturing businesses. Last and inconspicuous at its beginning, the Haskell Silk Company commenced manufacture in 1874, close to the site of the old Vogel mill.

Earlier discussion of mill relocation in Paterson and Pennsylvania illustrates the contrast between the ante-bellum milieu of small scale localized factories and the new capital intensive industrial world where factories were deliberately situated in environments which offered multiple advantages of power supplies, favorable tax and labor laws, a suitable labor pool, space to

build and transportation systems assuring access to raw materials and markets. Westbrook had water power (which later translated into electricity), ample land for industrial buildings and worker housing, and proximity to supplies of American-born and immigrant labor. Railways linked the town to a broad distribution web. The Portland Ogdensburg Line provided connections to upstate New York and points further west, while the Portland Rochester Line accessed Boston and Massachusetts, the location of both markets and essential industry supplies.¹⁸ Up to the 1870s the Cumberland-Oxford canal conveyed goods to and from Portland's nearby docks. The port was an open gateway to Boston, New York and the rest of the world. Cotton and linen rags from all over the globe fed Westbrook's paper mill, raw cotton from the south reached the gingham, duck, warp and grain bag makers at Saccharappa Falls and via New York, bales of silk from Europe and Asia supplied the Haskell Silk Company.¹⁹ (Fig.2.5)

Towns recognized that rapid transit and good communications were vital adjuncts to modern modes of commerce. As early as 1853, Portland business leaders formed a Board of Trade which among other things set out to:

direct its efforts in a firm and vigorous manner to encourage and promote in every possible way its commercial and industrial progress, so as to give the fullest developments of all the natural advantages of the port and provide for speedy and ample transportation of merchandise throughout the state.²⁰

While improved transport and supply lines were important to businesses, low rents and taxes, as noted above, also played a part. In 1862 Westbrook offered any new cotton or wool manufacturers a five year tax exemption.²¹ Since the Dana Cotton Warp Company set up in 1866, it likely reaped this benefit, but there is no

means of ascertaining whether, in 1874, the Haskell Company, as a silk operation was similarly eligible for a rebate. To attract silk mills towns in Pennsylvania went to extremes with tax remissions, rent free land and even gifts of land at the turn of the century. At that time Westbrook also cited low rents and taxes when it advertised itself as an ideal location for manufacturing:

Capitalists, manufacturers and investors would do well to investigate the advantages offered in Westbrook. . . Here is a great opportunity for the location of small manufacturers of varied interests. The taxes are not high, the power is placed at reasonable figures, the rents are low in price, the transportation facilities are good, and in all, there could not be a more suitable place than Westbrook for small manufacturers.²²

It is clear that, in 1874, Westbrook offered the basic attractions for manufacturers but nothing uniquely essential to the establishment of a silk factory. Other communities not too far from Portland's harbor offered a similar environment. However, as far as understanding why specific industries grew in particular locations, studies of late 19th-century manufacturing show there is no one way of approaching or understanding the question.²³ Although issues relating to supplies of raw materials, labor, transport and markets seem the most likely causes, there are others. Some developments were reactive but "the history of industrial expansion in late 19th-century also divulges a proactive . . . aspect."²⁴ From the evidence, silk manufacturing in Westbrook falls into this category--a proactive enterprise. Westbrook turned out to be a successful silk manufacturing location because James Haskell decided to make the investment and orchestrate the operation. He was able to do so because he was a shrewd and able businessman. He had capital and through his stake in the Westbrook Manufacturing Company with its water

rights on the Saccarappa falls, he already owned the power source for his new enterprise.

James Haskell was experienced in the business of textile production. At age 66, after 16 years as the successful agent, and apparently part owner of The Westbrook Manufacturing Company's cotton mills, he resigned his position (in favor of his son, Frank) and involved himself in the newest branch of textile manufacturing and production--silk. Just as the American silk industry began to take shape in the mid-1870s, he launched a silk venture that made the best use of all that Westbrook had to offer. His action speaks of energy and enterprise, personal characteristics confirmed by his prior career in Massachusetts. His earlier endeavors in that State provide a sense of him as a person and also uncover links between his previous connections, the financing of the silk company, and the other individuals staked in the new venture.

As a young man, in Cape Anne, Massachusetts, James Haskell was an active community leader. Apparently a member of the local entrepreneurial elite, he played a dynamic role on a number of fronts, notably in 1839 when as a Gloucester selectman he served as one of the negotiators who managed Rockport's application to be set off from Gloucester as a separate town.²⁵ Subsequently he was elected Chairman of Rockport's selectmen, assessors and overseers and was commissioned as a Justice of the Peace and Notary Public in 1841.²⁶ Later, in the mid-1840s, when the town, like so many others, wanted to attract business and employment opportunities, Haskell family members and local investors initiated a scheme to raise capital to charter the Rockport Steam Cotton Company (1847). They selected Haskell as agent or manager.²⁷ In 1853 he was

named President of the new Rockport Savings Bank (in which the family had a financial interest) and the following year was elected to the Massachusetts Senate.²⁸ In the latter position Haskell undoubtedly, had opportunity to make connections with others engaged in textile production and keep abreast of the manufacturing and financial climate in that period of precipitate urbanization and growing industrialization. Although his business positions have not been researched here, by their inherent nature they signify two things--recognition of his competence and business acumen on the part of fellow entrepreneurs and on his own part a level of financial investment in the various concerns.

Given that Haskell was so well established in Rockport, why did he uproot his wife and family in 1858 and move to Westbrook? Did he and his colleagues in Rockport/Gloucester or some of his Boston contacts invest in the Westbrook Manufacturing Company? Without personal or company papers the only evidence to support this suggestion is his continued contact with Gloucester and his performance in Westbrook which seems more than that of hired manager. According to the Westbrook Chronicle newspaper he was chosen as agent by the new company, the Westbrook Manufacturing Company, when it acquired the old Portland Manufacturing Company which was sold at auction after it was crippled by lawsuits relating to waterpower rights.²⁹ The \$20,000 deal included half of each of the lower and upper Saccarappa dams, 3 mill buildings and a stretch of land at Brown Street with a number of houses.³⁰ (Figs.2.2 and 2.6)

Haskell immediately implemented a program of improvements as his son Edwin recalled years later:

Before starting the mills it was decided to replace the two breast or overshot wheels with more turbines. This meant taking out enough ledge at the end of the mill to make a flume 18 feet deep and a raceway to the river below the falls. The work was started in the spring of 1858, drilling and blasting, all handwork . . . The mills of the Westbrook Manufacturing Company comprised of one brick mill of 5 stories, a 2 story building beside it and a wooden building near the road, that was the duck mill, so called. This building was replaced in 1865 by 3 story brick building.³¹ (Fig. 2.1)

The construction date of the last mentioned building follows Haskell's highly profitable war time ventures in raw cotton speculation and government contracts for tent canvas.³² The cotton mill prospered under Haskell's management.³³ In personal terms whether as agent, shareholder or both, his success and business vitality was such that in 1874 he organized the silk enterprise with his own capital and the investment of relatives in Gloucester.

Haskell emerges as a man who moved easily in the world of finance, was an able manager and expert in cotton textile production. Despite all this his sudden foray into silk seems curious unless it is recalled that he was no stranger to the banking and industrial milieu of Massachusetts, where numerous silk sewing thread and machine twist mills were established in the 1860s and 1870s. Moreover, men like Haskell enjoyed contacts beyond their own narrow field through local Boards of Trade and through trade associations that were mutually supportive of each other's interests. A striking illustration of this interconnectedness is found in the United States Textile Manufacturers Directory, comprising Woolen, Cotton, Silk, Jute, Flax and Linen Establishments, a publication prepared on behalf of all branches of the textile industry by the dominant organization, the National Association of Wool Manufacturers, at their headquarters in Boston.³⁴ One stated motive for the development of this

compendium was its political value, referred to previously, as a means of shaping a strong front where tariff policies were concerned. Another, more mundane purpose, was the provision of practical information about resources and supplies:

To producers of and dealers in American fabrics, it will be interesting to have at hand the means of knowing the sources of all these products Another and larger class, to whom such a Directory will be not merely valuable, but indispensable, is that whose business is based on the textile industry, the class which furnishes the raw material to be worked up in the mills, the chemicals, drugs, and dyes, the machinery and supplies, &c., who will have in this Directory a list of their customers. That the advantages may be reciprocated between the manufacturers and those furnishing the mills with raw materials and supplies the Directory is supplemented by extensive advertisements from the latter.³⁵

In the course of the Directory's distribution to Cotton Association members, this volume most certainly passed into Haskell's hands. Silk was included in the Directory for the first time in 1874--the year he founded his silk business.

Although Haskell was a cotton manufacturer, it was not difficult for him to be well-informed and aware of silk as a textile investment opportunity. The location of his silk enterprise in Westbrook was not owed, as might be thought, to the Vogel precedent, but rather to market forces which shaped the climate of the times. Similar market forces and the same entrepreneurial impulse that triggered a spate of new cotton mills and expectations of prosperity in the ante-bellum years set off like anticipations in silk manufacture in the seventies and eighties. James Haskell was in tune with popular investment trends when he mobilized his organizational skills, experience and capital to start up the Haskell Silk Company in 1874.

Apparently unaffected by prevalent labor unrest or the general economic depression of 1873, the silk mill project commenced in July 1874, and progressed steadily. Property on Bridge Street was acquired, (Fig.2.1 and 2.3) machinery installed, the first bales of silk purchased and first payrolls met. Surviving monthly accounts from July to December 1874, shown in Table 2.2, provide an insight into what the start up of a small silk twist operation involved.³⁶

Table 2.2.--Haskell silk mill general start up expenses 1874.

1874		
July 1	Real Estate.To Marr Bros. Value of Property in Bridge St.	\$3,000.00
July 1	Marr Bros. To Mortgage No. 1	500.00
	“ “ No. 2	1,000.00
	“ “ No. 3	1,000.00
July 14	Repairs to Alex Edmonds bill of lumber	52.51
Aug.10	Machinery. To Atwood Machine Co. Bill of Machinery complete	5,186.19
Aug 26	Machinery. To Atwood Machine Co. Bill of fixtures	9.50
Sept.1	Machinery.To G.B. Williams & Son	57.00
Sept.7	Bills Payable (<i>This entry is wrong and is canceled on journal and ledger</i>) *	
	Our note in favor of S.P. & J.H. on 4 mos. disctd. payable at Rockport National Bank.	3,000.00
Sept.10	Stock Materials To Holbrook Mfg. Co. soap	8.00
Sept.16	WaterPower.To E. & E. J. Pennell's bill lumber	233.88
Sept 15	Implements & furniture. To Emery Waterhouse & Co.s bill	6.78
	General expenses(To stock and materials)	13.51
Sept 15	Merram & Morgan Paraffin Co.	
	Stock and Materials	
Sept.19	To Stour Spool Works	16.78
Sept.17	Machinery. To Atwood Machine Co.	11.50
Sept.25	Machinery. To Knowlton Bros. bill	289.18
Sept.25	Waterpower “ “	56.92
Sept.26	Stock and Materials.To John T.Walker bill	
	1 Bale # 24 Usual Reel Tsatlee Silk	667.62
	109 lbs. net. @ #6 1/8	

[* This note is a later addition inserted beside Bills Payable to record a change.].

Source: General Accounts July 1874-December 1882; Haskell Company Collection, Historical Collections Baker Library, HBS.

September 26th records the first silk expenditure. It was a 109 lb. bale of “#24 Usual Tsatlee Silk” (Chinese) supplied by New York importer, John T. Walker, the

company discussed earlier that pioneered improvements in Chinese silk. A second purchase on October 12th is listed as "Covered by our note. 4 months payable at Casco Bank." Together, this item, and the earlier cancelled September 7th note made payable at the Rockport bank show something of James Haskell's banking connections in Portland and his continued association with Rockport's financial institutions. At the same time the entries draw attention to the terms and conditions of silk sales. European silks were commonly sold on 60-days credit or 3-4 month terms whereas Asiatic silk usually sold on 6 months credit.³⁷ This gave the cheaper Asiatic product even more of an edge because companies found the time frame helpful in financing their businesses. Significantly, however, from this date on (mid-1870s), raw silk options began to improve. Where, hitherto, choices consisted of, not very well reeled Chinese or good quality, much more expensive European silk, now an alternative--Japanese silk--entered the picture and presented an encouraging long term prospect.³⁸

As the new factory established production, other transactions record the acquisition of spinning and stretching (thread finishing) machinery and the services of a selling agent, J. P. Jordan. Two and a half years after its inception, on November 17, 1876, the company incorporated "for the purpose [of] the manufacture, use and sale of silk or cotton threads and silk or cotton goods of any description."³⁹ The goal is admirable for its breadth of possibilities and embodiment of ambitious hopes on the one hand and, on the other, for what appears to be recognition of cotton as an alternative or supplemental market. The total capital stock was \$75,000, of which \$30,000 was already paid. Of the five

directors, three were Haskells--James, Frank and Edwin--from Westbrook and two were Pooles--Samuel and William--relatives from Gloucester. The par value of shares was \$100. James, as President and Frank, as Treasurer each held 75 shares and the others 50 apiece.⁴⁰

By opting for corporate ownership Haskell followed the organizational structure favored among New England textile manufacturers. In contrast, small firms in Philadelphia tended to be owned individually or by small family partnerships with corporations as an exception. This latter tradition of proprietary capitalism engendered a pattern of flexibility, manifested by rapid responses to market needs and the instant exploitation of opportunities whether they arose in real estate, raw goods, machinery or trends.⁴¹ As a result manufacturing in Philadelphia encompassed a wide and ever-changing variety of types of cloth, and its textile industry supported a worker population of diverse skills.⁴² Conversely mammoth, less nimble corporate mills in Lowell and elsewhere derived profitability from basic staple goods produced by automated looms and an unskilled workforce engaged in repetitive loom tending. A similar situation prevailed in the old Rhode Island-style mills in the postbellum years. Different again, the Haskell small family corporate structure fell between the extremes. To judge from the Haskell company transitions during the developmental years of 1876-1902, the firms's structure did not hamper decision making or change. Furthermore, this closely held corporation resembled a family partnership. It did not lay the concern open to the driving pressures typically exerted by shareholders alien to the scene of production, as was the case with Lowell, Lewiston and other corporately controlled mills.

As described above the plant was set up and thread production started between July and December 1874. The fledgling company was guided by James Haskell as President with his son, Frank, (now the cotton mill agent) as treasurer. Younger son, Edwin, with Charles Fenton as superintendent, ran the operation. The first records of salaries and payroll in Table 2.3 show:

Table 2.3.--Haskell Silk Company accounts with the first salaries and expenses.

30th September 1874

General Expenses

To Charles Fenton.....	Superintendent salary.....	\$103.00
E.J. Haskell.....	Agent.....3 months.....	150.00
F. Haskell.....	Treas.....3 months.....	75.00

Manufacturing Labor

To Payroll

Winding Room.....	3.00
Spinning Room.....	1.50

Source: General Accounts A-1, Haskell Silk Co., HBS

Table 2.4.--Accounts and expenses for April 1875 and November 1880.

General Expenses	30 April 1875	30 Nov. 1880s
C.Fenton.....	\$83.43.....	\$125.00
E.J. Haskell.....	50.00.....	50.00
W.W.Poole.....	50.50
F.Haskell.....	25.00.....	25.00
Manufactory Labor		
To Payroll.....	310.30.....	953.36

Source: General Accounts A-1, Haskell Silk Co., HBS

From Table 2.3 it appears that management worked for the first months to set up the plant and that production actually began in September. Subsequent months selected from 1875 and 1880, presented in Table 2.4, evidence an established salary scale for the principals and steadily increased production evidenced by the

growing payroll. W. W. Poole, another young man from Gloucester--named on the incorporation papers and probably James Haskell's nephew--apparently joined management in 1880 and appears under salaries for the first time in November of that year. Earlier entries show Poole received payment for work in Boston, possibly as a selling agent.

The payroll offers no details to help paint a picture of the individuals who made up the swelling ranks of operatives--how many male, female, American born or immigrant. There is a strong likelihood that a substantial proportion of Haskell silk workers were French-Canadian immigrants because a dense French Catholic population grew in and around Bridge Street, neighboring the silk mill, in the 1870s and 1880s.⁴³ It was the Dana Warp Mill and the Westbrook Manufacturing Company that drew these workers to Saccarappa during the early 1870s, years of large scale French-Canadian immigration to Maine. With this influx of newcomers the established Yankee, Irish and Scotch Westbrook factory community, no doubt suffered its share of dislodged local mill hands, as did all the other mill towns.

Although the immigrants swelled the available labor force it seems unlikely that the new labor pool had any immediate influence on the silk thread operation. The French-Canadians came from an agricultural background. They were inexperienced in textile manufacture of any kind, unlike many English, French and German immigrants who were skilled silk workers, able to go straight to work in Paterson and New Jersey silk mills in the 1870s. In Maine even experienced mill hands knew nothing of silk. As a consequence, despite the size of the labor pool, there were no experienced silk workers to hire. Clearly Haskell trained a workforce. During the company's first phase--manufacturing organzine, tram, and

twist--the training of operatives to the point of efficiency was not a lengthy process.⁴⁴ However, once the company embarked on weaving the situation changed since:

First in importance comes labor, and in hardly any industry is the labor question more dominant than in silk manufacturing . . . For all weaving, and for all other dyed-silk work, considerable skill is required. Those who go to districts away from the silk centers must expect to go through a long period of small production and imperfect product while training their work people, and, in fact, to keep a small textile school constantly in operation, for training fresh hands to take the place of those who, from one cause or another may leave.⁴⁵

Because the Haskell mill was so isolated it is evident that training was an essential, ongoing investment. Whatever the schooling process, within a few years of starting Haskell had prepared workers sufficient in number and in skill to start manufacturing broadgoods

Company Expansion 1882-1902

The decision to abandon making machine twist and move into weaving, signifies the Haskell Company's sound grasp of the silk industry scene as a whole. In the 1880s the market for twist was saturated, whereas the U.S. manufacture of broadsilk was just beginning to supply silk hungry consumers with moderately priced domestic silks as an alternative to expensive highly taxed imports. By this time quantities of better quality raw silk imported from Japan provided American manufacturers the wherewithal to expand broad (dress) silk production. The urge to accelerate output of broad goods stimulated the ongoing shift from hand to power looms. As a thread maker Haskell owned no looms, so there was no old

fashioned hand weaving equipment to be replaced. Therefore it appears likely that from the start Haskell utilized power looms--imports from Europe as all such equipment used by U.S. silk manufacturers was at this time. By the end of 1882 Haskell was transformed into a vertically integrated operation manufacturing its own tram and organzine and running at least 20 looms.⁴⁶

The new weaving developments are reflected first, in the shareholder's vote of March 17, 1883, to increase the corporation's capital stock to \$150,000 and second, by increases in salary and payroll figures over the following years as Table 2.5 illustrates.⁴⁷

Table 2.5.--Increases in monthly salaries and payroll amounts, 1882-1903.

Salaries	March 1882	April 1887	July 1890	Dec.1903
C. Fenton	125.00	125.00	125.00	208.00
E.J. Haskell	75.00	100.00	125.00	208.00
W W. Poole	75.00	100.00	125.00	208.00
F.Haskell	25.00	100.00.....	died 1896.....	
Payroll	1,846.50	3,453.60	2,693.92	3,301.43
Value of Sales of Woven Goods	----	2,843.07	3,814.65	2,459.32

Source: General Accounts A-1 and A-2, Haskell Silk Co., HBS.

During this time sales figures fluctuated seasonally between summer and winter but otherwise remained stable, although the payroll almost doubled. The payroll entries record no specifics so there is nothing in the figures to indicate that the weaving start-up entailed the expensive addition of key personnel--a loom fixer. Because loom fixers dealt with mechanical problems, they were crucial to the smooth running of a mill. The 1881-2 recruitment of German immigrant Ernest

Gerhardtts from the old established firm Cutter of Newark, New Jersey, took place at the start of the weaving venture and indicates that northbound though Haskell's location was, the company was nevertheless networked into the industry at large.⁴⁸

Loom fixers counted among the highest paid mill workers. Because silk operatives in general were better paid than those in other branches of textiles, a silk loom fixer's rate of pay was exceptional. The 1880 census shows the average weekly wage rate for silk loom fixers as \$15.87 compared with the lowest, a female raw silk cleaner earning a typical rate of \$3.00 per week.⁴⁹ Average wage rates for women employed in various stages of silk throwing and in tasks such as quill winding ranged from between \$4.00 and \$5.25 weekly. Female power loom weavers are listed at a \$7.94 rate whereas the male rate is given as \$11.43 to \$12.00. This disparity is attributable to prevalent male/female wage differences and to variations in loom width and level of complication as in very wide fringe looms.⁵⁰

While the payroll ledgers remain obstinately silent, photographs of the mill hands do speak, not to identify the weavers and throwsters, but to reveal something about the composition of the workforce. One photograph, undated except for the garments suggesting the late 1870s, offers a faded image of workers spilling out of a doorway beneath a Haskell Silk Company sign. (Fig.2.7) As far as can be determined, the informal cluster consists of 22 males, 13 apronned females and 7 short skirted girls also wearing aprons. Other faces are faintly visible at the windows. A second image, this time a formal photograph, dated 1889, presents a

picture of 39 stylishly dressed females seated in 3 serried rows with 14 males standing at the back. (Fig.2.8) Names can be put to only two workers--in the top row third from the right twister Theodore Gaudreau and in the second back row in front of the man in white sits the bearded loom fixer Ernest Gerhardtts.⁵¹ From the evidence of these photographs the nature of the workforce changed between the late 1870s and late 1880s. In the earlier picture there are an almost equal number of males and females, whereas the later image consists almost entirely of adult women. This suggests that the mill had abandoned the old style European looms and changed over to the new, faster but easy to operate American-made machines--a common transition at this time.

The photograph backgrounds provide views of the clapboarded mill buildings in Bridge Street. The 1870s picture includes the sign above one of the oldest parts of the mill (Fig.2.9) and the 1889 group appears to be assembled in front of the last addition to the Bridge Street premises. (Fig.2.9) As already described, and the illustrations show, the mill was expanded from time to time, the last in 1887 according to local published accounts.⁵² This date may be accurate as far as the construction is concerned, but the extra space was evidently not required until new looms were purchased in 1889, when capacity increased from 50 to 75 looms.⁵³ The new machines were likely simpler to operate and larger, capable of turning out fabric more than 19 and 24 inches wide. Economic historian H. J. Habakkuk shows that American industrialists constantly replaced machines with new improved versions. Where labor was scarce or, as in the Haskell case, consisted of skilled silk specialists far from any auxiliary supply of

similar expertise, it is understandable that labor retention and the employment of machines which increased their productivity was "a more urgent concern than the return on capital, at least in the short run and so long as the return was enough to service any external finance and provide conventional minimum return to the manufacturer."⁵⁴ However it will be remembered that cost accounting was not highly developed in this era, so it can be concluded that the data used to justify the capital outlay on new looms was generally uncertain, as was the means of identifying the specific factors which actually contributed to profit and loss.

The company continued to expand, but likely vagaries in the area of cost accounting prompts a question. Was the volume of demand for Haskell fabrics, although apparently high, sufficient to support the financing of such an expensive project as a major new manufacturing plant? Without relevant company documents, the question at this time remains unanswered. Of course the expansion must be viewed from the perspective of the time. Factory expansion and machine updating were endemic in the late 1890s and early 20th century. Nationwide in the silk industry between 1901 and 1905, 18,000 new broad looms were put into use.⁵⁵

While the new 1902 Haskell factory was evidently planned to accommodate increased production an examination of correlated turn-of-the century events in Westbrook presents the likely means by which it was financed. James's son, Frank Haskell, agent for the Westbrook Manufacturing Company, died in 1896 during a period when flood damage closed his mills. For reasons related to the slump in demand for cotton goods the mill never reopened. In the meantime, the Dana Warp Mill moved from strength to strength and soon leased

the Westbrook Manufacturing Company buildings, finally purchasing them in 1901.⁵⁶ In that year Haskell acquired 65 acres upstream above the cotton mills and commenced construction of the 2 story, 55 by 300 foot brick and stone silk mill, a 100 by 60 foot dye house and the boring of two wells for clear water supplies.⁵⁷ (Figs. 2.3 and 2.10) While no documents confirm the Haskell ownership or shares in the Westbrook Manufacturing Company, the role played by James Haskell, discussed earlier, attests to the family's financial involvement with this mill. If so, the sale of the cotton mill buildings in 1901 probably helped to finance the purchase of up dated machinery and the construction of the new silk mill which opened in 1902 with 250 looms.⁵⁸ This number of looms, up from 75, increased increased production capacity threefold.

The new the silk mill was run by electricity supplied by a company in which Haskell held an interest. Edwin Haskell, William W. Poole and Lemuel Lane, silk company Directors, all held similar Directorships in the Mallison Power Company (higher up on the Presumpscot River, near Windham) and earned income from the sale of surplus power.⁵⁹ In the new premises, operated, heated and lighted by electricity, the silk company maintained its integrated organization-importing raw silk, making tram and organzine, weaving, dyeing and finishing.⁶⁰ For the latter processes, the new artisian wells assured the quantities of pure water so essential for silk manufacture and dyeing.

Maturity: 1902-1919

Distinct from the more traditional European variety, automated and improved American looms of the same vintage as the new Westbrook factory were noted for their moderate price, light construction, ease of handling, simplicity of operation and accuracy of weave. These characteristics contributed to high speed production and kept expensive labor to the minimum.⁶¹ Haskell weavers reportedly tended only two looms and there is no record of attempts to increase assignments--the cause of strife in Paterson. Low loom assignment and a stable experienced workforce inevitably contributed to the quality of the Haskell end product. It is reasonable to surmise that any new looms installed in the new Haskell mill were of the latest, efficient, wider variety, 36 to 42 inches. The combination of width and quality enhanced the marketability of the finished Haskell fabric. Within the decade however, 45-54 inch wide fabrics became increasingly popular.⁶²

In this era of silk industry growth overproduction depressed staple silk prices.⁶³ However, the Haskell Company with a well equipped plant, untroubled workforce, respected name and an established niche in high grade black silks, was better positioned to ride the early twentieth-century market than many similarly sized plants in New Jersey and Pennsylvania.⁶⁴ The company entered a long phase of consistent performance. During this period the silk mill payroll played a significant role in the economy of the town which regarded the

Haskell Silk Company as one of its "financial bulwarks."⁶⁵ How the owners contributed to Westbrook as employers and civic leaders is more easily traced than details about individual workers. Nonetheless their caliber and role in the community did not pass entirely unrecognized. In the early 1900s a business review noted:

The manufacture of silk requires the services of more skilled workers than does the manufacture of many other kinds of fabric . . . there is perhaps no feature that has been more beneficial to the character of Westbrook citizenship than the influence exerted by the high class of operatives employed. . . Another feature making that character more pronounced is the fact that employees continue in the service of the company for long periods of years. The company pursues a liberal policy with the help, and the best of relations exist between the officers and employees.⁶⁶

The latter comment serves as a reminder that this was not the case everywhere in the silk industry. There are no reports of strikes or labor unrest (before the 1920s) at the Haskell mill. To judge from newspaper reports of longevity of employment and frequent comments like the one above, it seems that in the period of family dominated ownership, this silk company pursued a benign style of management. This was not uncommon in remotely situated mills where owners and workers tended to accommodate each other more readily than in places where alternate employees and employment were readily found. Shortage of experienced silk workers may be the reason Haskell used home workers to do the picking.⁶⁷ Barrows bearing bolts of silk to and from the factory were part of the daily scene in Saccarappa.

In Westbrook, Haskell's neighbor, noted for remarkably good worker relations, the S. D. Warren paper mill offered early pension schemes and numerous other employee services. Haskell and Warren may both be classed as

"community- based, community-minded manufacturers," unlike the "grand acquirers" of the Gilded Age.⁶⁸ In the twenties ideals of welfare capitalism and industrial democracy were pursued by Cheney's and other Connecticut silk firms who put such labor relations ideas into practice.⁶⁹

A sense of the Haskell Company's overall stability emerges from the accounts. Table 2.6 presents monthly power expenses, salaries and payroll for January 1904.

Table 2.6.--Established monthly salaries and payroll by 1904. ⁷⁰

Jan. 1904	Salaries		
	President	Wm. W. Poole	208.00
	Gen. Manager	E.J.Haskell	208.00
	Treasurer	Lemuel Lane	208.00
	Payroll		5,148.76
	Mallison Power		250.00

Source: General Accounts A-3, Haskell Silk Co., HBS.

Between 1904 and 1914 the monthly figures remained relatively unchanged from those in Table 2.6. In 1914 the number of company employees stood reportedly between 250 and 275.⁷¹ Salaries continue unaltered up to 1917 with the payroll ranging from approximately \$7,000 to \$8,500.⁷²

Company Decline: 1919-1930

Where company papers relating to earlier decades are very limited, there are none at all for the period 1919-1930. This attempt to track events as they unfolded

was accomplished principally from newspaper accounts. From these sources it appears that, in common with the silk industry nationwide. Haskell experienced difficulties following the first World War.⁷³ At that time severe fluctuations in raw silk prices between 1919 and the 1920s beset manufacturers everywhere and inroads made by rayon fabrics compounded existing overproduction and overcapacity problems. In short, in the post-war years the silk industry became an unstable "sick industry."⁷⁴ The Haskell Company manifested the classic symptoms. At this juncture the situation was exacerbated by a leadership vacuum caused by the death in December 1921 of Lemuel Lane, Treasurer since 1896. Indicative of a crisis, in 1922 production was cut until only a small section of the mill was in operation.⁷⁵

On August 2, 1922, at the annual stockholder's meeting, the capital stock was decreased from \$150,000 to \$105,000 consisting of 1050 shares with a par value of \$100 each. At the same time a total of 720 new shares without par value were issued for sale.⁷⁶ With this reorganization the number of company directors was reduced from five to three.⁷⁷ Subsequently the tradition of Westbrook owner-management was broken with the introduction of Thomas J. Arnold of the small (44 looms) silk firm Arnold and Young, Paterson, New Jersey. In the new arrangement, Arnold was President, Edwin Haskell Vice-President and Philip Dana of Dana Warp Mills, a local bank director and experienced (cotton) textile man was treasurer.⁷⁸ Edwin's son, Ralph, continued as mill superintendent.⁷⁹

On August 3, 1922, the day after the reorganization, The Portland Evening Express explained that Haskell's market had fallen off because the plant was

equipped only to “manufacture high grade Haskell taffeta silk, recognized as standard for dresses and linings in all parts of the U.S.A.” and was unable to switch to the new “sport silk” currently in demand.⁸⁰ To meet the changing markets, the newspaper continued, alterations were planned and a return to full production was expected within months.⁸¹ By mid-November 1922 the mill was reported to be operating at 50% of maximum.⁸²

Locally 1922 was significant as the year of the Haskell Company reorganization. Nationally, as observed in Chapter I, 1922 was momentous as the year when America consumed over 90% of Japan's raw silk, and U.S. silk imports reached their all-time peak of 65% of total world production. With such a deluge of supplies of raw silk prices kept falling. Silk often lost its value on the loom. Competition from cheaper rayon filament, very keenly felt by 1925, intensified problems for many silk mills especially those unequipped to adapt to rayon or mixes or, better still, to switch back and forth between the two. Since Haskell produced some rayons, it seems possible that a number of looms were modified to handle the heavier rayon. The bolt of rayon salvaged from the mill is 39 inches wide which indicates that it was probably produced on a 42 inch wide loom like the plain 5 harness looms shown in the only (undated) picture of the inside of the mill.(Fig.2.11) Documentation confirms that the mill only produced narrow goods in the twenties.⁸³ Haskell did not have the capacity to take advantage of the fluctuating silk and rayon prices or to manufacture the extra wide (more economic to produce) fabrics, 54, 72-and even 90 inches, that some factories could turn out by the late twenties.⁸⁴

General industry malaise is communicated by the disarray at the Haskell mill. In 1925 just three years after he became Haskell Company President, Arnold resigned. The announcement stated that he had financial interests in a number of other concerns and was no longer President of Arnold and Young, but of the Ivanhoe Silk Company.⁸⁵ The reason for his resignation, "(that) the pressures of business in his home state (made it) impossible to give the Westbrook mill the attention it should have," is straightforward enough but gives no real hint of the disjointure and transition going on in Paterson in the mid-twenties.⁸⁶

In the pre-war era most of Paterson's mills were average size, above or comparable to Haskell. There were also innumerable precarious small scale companies, set up with second hand looms by entrepreneurs with little capital. As even more weavers scrambled to survive by starting up on their own in the 1920s, mills opened and closed so frequently that many briefly operational firms were never even recorded.⁸⁷ Modest family shops proliferated, until by 1926 ninety percent of Paterson's concerns had 60 looms or less and 33 was the average.⁸⁸

There was considerable variation in the number of shops and looms within each year which was due to the relatively large number of openings and closings. This turn-over of operatorships has been one of the outstanding characteristics of the industry. . . . In rates of total turn-over, these movements were highest during the expansion years of 1925 and 1926, when 57.9 and 50.8 percent respectively of all concerns in operation changed their status.⁸⁹

The history of the Haskell erstwhile President, Arnold, is a case in point. In 1922 T.J. Arnold was President of Arnold and Young, a Paterson plain and fancy broad silk manufacturer with 44 looms.⁹⁰ J. E. Young was Secretary and J. E. Arnold, evidently a family member, was Treasurer. When Arnold bought into Haskell in 1922, the Maine mill's capacity and established name were the likely attractions,

whereas Westbrook company directors probably looked to him as an experienced silk man with up-to-date ideas and likely to be able to rejuvenate the Haskell operation. In the end they were disappointed. By 1925 the Arnold enterprise in New Jersey had increased to 60 looms and reorganized as the Ivanhoe Silk Company.⁹¹ At this point Arnold removed himself and, presumably, his investment from Haskell. One year later, in 1926, the Ivanhoe company was no longer in operation, but a new firm, The Arnold Silk Company Inc., with a different owner appears in trade directories. Now seemingly involved in commission weaving (see Chapter I), Arnold advertised from a New York address - "Broad Silks: Work Done Outside."⁹² Clearly the company no longer owned or operated looms. Arnold does not appear in trade listings for 1928. In broad silk, between old firms and new start-ups in New Jersey in the span of years between 1921 and 1929, only 34% were still in operation in the latter year.⁹³ In New Jersey two closed down for every one that continued. Pennsylvania, New York and Rhode Island experienced similar high rates of change.⁹⁴

After Arnold's departure Nelson R. Davis, Superintendent of the S. D. Warren Paper Company took the helm as President. This meant that two out of three company officers had no experience in silk manufacture. In the prevailing industry and market conditions, it is unlikely that even silk veterans had the ability to reverse the Westbrook company's downward spiral.

Scant information can be gleaned about the last few years at the Haskell mill. Evidence of growing distress emerges from a July 1927 newspaper account of a walk-out and mill closure. Dissent arose from workers dissatisfied with wage

decreases and changes in working conditions--perhaps increased loom assignments although that is not mentioned.⁹⁵ In April 1928 an announcement of a return to full time after 5 months of short time was reported by the Portland Evening News which noted that the mill's 150 hands were exclusively engaged in the production of rayon and artificial silk.⁹⁶ A year and a half later, on December 11, 1930 the newspaper announced that after more than a month of gradual business decline production at Haskell's ceased on December 5.⁹⁷

The 1930-31 edition of the Westbrook Street Directory published what proved to be the company's final entry. A statistical chart, Table 2.7, features the city's 4 principal manufacturers and gives an idea of the number of workers still employed (albeit sporadically) in the late 1920s and the silk mill's annual output at this low point in its history.

Table 2.7.--Westbrook's principal manufacturers 1930-1931.

Firm	Product	Yearly output	Employees	Assessed real estate value
S. D. Warren	Standard print papers	78,000 tons	1,500	\$3,453,040
Dana Warp Mill	Cotton Warps and bags	4,000,000 lb	500	612,025
Haskell Silk Company	Silk and rayon garment fabrics	690,000 yds	140	71, 500
Saunders Bros.	Hardwood dowels	325,000,000 pieces	63	14,250

Source: Westbrook Residents and Business Directory, 1930-31.

Intended as an advertisement this announcement was instead an epitaph. The 56-year old silk mill did not die alone, but in the company of numerous others, dogged by the same pressures and fundamental changes sweeping through this

branch of textile manufacture. Some firms like Paterson's Pelgram and Meyer, a company as long established as Haskell, recognized that times had changed and closed down before they were forced to.⁹⁸

The new silk and rayon industry dawning in the late 1920s and early 30s employed ever wider looms, interchangeable for rayon or silk. At a time when silk and rayon prices jostled closely, this enabled companies to switch production from one to the other to shrewdly take advantage of raw goods price differentials as they presented themselves. The speculative propensities of this transitional period drew comment in a silk and rayon industry report of the early 1930s: "Although merchandising and promotional activity eventually will have a definite bearing on the shift from one raw material to another, today the deciding factor is price."⁹⁹

Haskell did not adjust to fit into the new structure of the industry. Previously the company operated very successfully producing goods and selling them direct through their sales manager and salesrooms, the last at 440 4th Avenue, New York.¹⁰⁰ However after Arnold's departure the salesroom was given up and an agent, Allen L. West, was hired to procure orders.¹⁰¹ What little activity there was in the latter years was evidently commission weaving secured by West. This work was intermittent and Haskell was overtaken by bankruptcy in 1930.¹⁰²

Within two years local businessmen attempted to re-open the mill.¹⁰³ The effort was motivated by the desire to alleviate unemployment and by an awareness that the mill payroll would boost local businesses and help the

economy in Westbrook, Portland and the surrounding area. Newspapers reported that the Reconstruction Finance Corporation was willing to provide a \$100,000 five year renewable loan at four percent and that local Westbrook individuals raised \$25,000 towards the refinancing effort.¹⁰⁴ Despite this and former Haskell Treasurer Dana's announcement that "Reputable people will operate it [the mill] and men of real knowledge of the silk business will direct its operations" in the end there was not enough local support and the optimistic plan came to naught. Perhaps with the money and new machines a Haskell recovery was feasible. There was still a market for fine quality silk. As the rayon and silk industry was regulated it stabilized in the mid-1930s and the silk sector--now much smaller--operated efficiently at a realistic level of production and served a more modest scale of demand

Haskell Company: Production and Marketing

While the harsh new realities of production and marketing in the 1930s crushed the Haskell Silk Company, what of its hey days of production? What type of goods were manufactured then? How were they marketed and what influence did the location exert, if any? Silk experts recognized that the start and subsequent operation of an isolated rural silk mill presented problems because, as a rule, such areas do not offer the specialists required. Haskell recruited the necessary know-how. There were Charles Fenton, the well paid plant superintendent, later Gerhardtts, the German loom fixer and Theodore J. Bachofen,

a Swiss dyer.¹⁰⁵ On the machine shop side, expertise was close to hand with a local Westbrook engineering company, the Knowlton Brothers, originally brought from Gloucester by James Haskell to service the cotton mill. At this time it is not known how the firm coped with the problem of selecting and training workers in the various silk manufacturing processes. Due to its structure as an integrated operation, the Haskell mill called for an exceptionally diverse workforce. The majority were weavers, some were throwsters who made tram and organzine, while one small expert group did the dyeing and yet another the finishing.

Unlike most weaving mills, Haskell carried out their own throwing. This process, turning raw silk into tram and organzine, dated from the company's beginnings. Machinery from Atwood (leading manufactures from their early years as pioneers of throwing machine improvement) is listed among the items purchased during the original mill set-up (see Table 2.2). One "twister," Napoleon Gaudreau, reputedly worked at this task for 56 years--the duration of the company.¹⁰⁶ Based on this, it seems reasonable to surmise that a band of throwsters, veterans from sewing thread days, produced the tram and organzine for weaving. Possibly it was otherwise. By 1900 new automated throwing machines were usually tended by young women who, as throwsters, "could earn wages equal to or better than what they would make as shop girls or servants."¹⁰⁷ Aided by the latest improvements a small crew had the capacity to produce the quantity and quality of silk thread required to supply Haskell looms.¹⁰⁸

It was likewise unusual for a plant this size to do its own dyeing. However, apart from a short period in its early sewing twist days, Haskells apparently carried out its own dye-work.¹⁰⁹ Dye chemistry requires expertise but it is not known who originally monitored this side of production. When silk was dyed in skeins, the physical management of the dye process was not too difficult. One account describes old time rotary skein dye shops as "noisy and picturesque."¹¹⁰ The skeins of silk hung from huge wooden pegs where they were stretched and "tourniqueted" and "lovingly smoothed and twisted" into hanks by careful highly experienced workers.¹¹¹ Because male workers were more likely to be employed dyeing, it follows that even after the manufacture of machine twist and all the other sewing threads ended a number of experienced dyemen were available to handle ever increasing quantities of skein-dyed organzine and tram for the expanded weaving enterprise. Later, as the custom of yarn dyeing went out of fashion, prior to World War I, the same group, under Theodore Bachofen's supervision, likely transitioned to the much more difficult piece dyeing process.¹¹² The employment of an expert was an expense on top of dyestuffs and chemicals, the costs for power and pumping "unbelievable" amounts of water.¹¹³ In answer to the question of whether a moderate sized plant saved money by doing its own dyeing and whether it is advisable to try to do so, an industry expert in the early 1900s advised that experience teaches that a manufacturer "had better leave dyeing alone . . . unless one of the partners or a head man has been trained as a dyer."¹¹⁴

The alternative was the expense of service fees and transportation to one of the commercial dyers around New Jersey. Despite costs and inconvenience this solution looks straightforward, but is not, in fact, as simple as it seems, because silk has the capacity to absorb many times its own weight in dye or other chemical substances and thus the dye process lends itself to abuses and fraud. In an extreme case, reported in 1898, the actual silk, after dyeing, accounted for only 1/3 of the fabric with 2/3 made up of water, ashes, oxides, siliceous matter and other organic substances.¹¹⁵ Weighting, as this is called, was manipulated by less scrupulous manufacturers (European manufacturers were among some of the worst offenders) to thicken silk yarns beyond their actual size and impart a firmer, literally "weightier," feel to new fabric which was then sold at a higher price than the silk content warranted. Once taken into use heavily weighted fabrics quickly became brittle and lost both appearance and consumer confidence. For most reputable manufacturers a low ratio of weighting was normal, accepted practice although many American firms, Haskell among them, prided themselves in the production of "pure" silks. In view of all this, it is understandable that for Haskell in-house dyeing did more than cut out the delays and expenses of shipping; it gave the kind of oversight, impossible from afar, which meant they were able to maintain a consistent standard.

As events turned out the decision to dye in-house and closely monitor standards paid handsome dividends. In 1894 due to allegations that the quality of domestic silks was declining while foreign silks appeared to be improving, the American Silk Journal commissioned a chemical analysis of a selection of similar looking specimens of domestic and foreign silk fabrics.¹¹⁶ The published results

showed the U.S. silks unequivocally superior to the imported excessively weighted examples. The full discussion of foreign adulterated silks and the test results were published in October 1894 and revealed that the domestic samples used to represent the American silk industry were Haskell silks. The report concluded with these remarks:

We may add before dismissing the subject, to which, however, we may return in a later issue, that in the tests of American versus foreign fabrics made by Professor Dean, the domestic silks employed were from the looms of the Haskell Silk Company, of Westbrook, Maine, widely known as large producers of honest, durable American black silks of great and uniform value, including, as we understand, various weaves, in both black and colors of absolutely pure dye silk.¹¹⁷

These findings, featured in the American Silk Journal, October 1894 account for the Haskell reputation as the standard for the trade and explain why the Haskell name was so well known.

In the company's early weaving days--the 1880s--finishing was carried out at a location other than the Haskell plant.¹¹⁸ However, once the commitment to full scale weaving was made, the finishing process called for major decisions. One option was to incur ongoing extra expenses and ship all the fabric to specialist finishers, probably in New Jersey. The other alternative was to shoulder some capital expenditure, acquire the equipment and finish their own cloth. The latter was, again, an unusual action for silk mill of less than 300 looms to undertake and was not a practice recommended by experts familiar with the economics of silk textile manufacture.¹¹⁹

It seems likely that Gerhardtts, the loom fixer, took over the finishing operation. A report of his career notes that he was promoted rapidly, and from

about 1900 was in charge of "the upper room."¹²⁰ There is no information about the work he supervised there, but the well educated and highly respected Gerhardtts, who knew "silk manufacture from A to Z," more than fits the description of the ideal finishing foreman who should be "experienced and of good judgement."¹²¹ The job entails the inspection of goods each day, sorting out the various fabrics and the assignment of appropriate treatments, many of which involved rollers and the application of heat.

One of the principle aims of good finishing is to correct, as far as possible, the unavoidable differences in pieces as they come from the looms, reducing somewhat the "hand" [feel] of those that are too heavy, and bringing up the weight of the light ones, and so securing a good degree of uniformity in the finished product. As the goods are being finished, the foreman must follow them up to see that they correspond closely to the standard samples to which he is working.¹²²

Since the difference between a first class finish and an inferior one could mean as much as ten per cent of the fabric selling price, the finish department manager or foreman carried a hefty responsibility.¹²³ Perhaps, if indeed Gerhardtts did run the finishing operation, it is not too much to say that he contributed significantly to the company's financial success and that the fine reputation Haskell silks enjoyed was owed in large part to him.

The first silk fabrics manufactured at Saccarappa encompassed neutral and colored dress goods--satin stripes, brocades and figured satins.¹²⁴ However these textiles require elaborate looms (Jacquards), special weaving and design skills and, in order to market well, must be in step with current fashion. Therefore, as already remarked, as a practical matter, to keep in touch with market changes, silk companies that served the fashion market located near the

source of trends--New York. Whether Haskell was burned with out-of-fashion designs or simply recognized the realities of fashion marketing, by 1891 their product line had simplified. They advertised:

Fine Dress Silks and Satins. Warranted to wear.
Black Silks with black edging a specialty; Gros Grains, Surahs, Faille
Francaise, Alma Royal, Duchesse Satin, Peau De Soie, etc.etc. also
Neckwear.¹²⁵

Tucked away in the north, far from fashion's pulse it seems as if the Haskell management asked themselves the same questions posed by silk industry expert James Chittick and that they arrived at the same solutions. Because industry overproduction created a marketing dilemma for most companies, Chittick asked, "What directions are there in which a broad silk mill can work that would be properly designated policies?" In answer to his own question he suggested that:

Mills may specialize in one or more staple fabrics, on one division of staple fabrics, such as blacks . . . A mill desiring to specialize in a staple cloth has many to choose from. It may make umbrella silks, chiffons, crepe de chines, shantungs foulards, taffetas, cotton-back satins . . . etc. etc. If the mill manager knows his business and if the sales department can market the product at full market price a mill employing say, 200 looms steadily on one of these fabrics, ought to do well in most seasons . . . there should be a reasonable profit in them. Add to this the fact that the output in yards would be so respectable that the mill would have some standing in the market as a producer of that article and buyers would make a point to look for its goods when in the market. Again, a mill may specialize in the same way on blacks -- nothing but blacks--be they satin, peau de soie or what not . . . Great economies of production result from simplification of work as but few kinds and sizes of silk and other materials are used, few different sorts of weightings, a uniform kind of machinery and a minimum of supervision and other labor.¹²⁶

In combination, location and this pragmatic approach to production appear to be the determinants which led Haskell to adopt a conservative line of all season,

predominantly (but not exclusively) black and classic dress and lining fabrics--which guaranteed a constant market. Thus the emergence of Haskell silk textiles as a leader, recognized as the standard in their class of goods, was the serendipitous result of company policy and geographic isolation. The latter encouraged integrated organization which, in turn, propagated high levels of refinement at every stage of production: Haskell dyers and weavers each had a narrow field in which to hone skills and processes--as did the throwsters and finishers. In short the site had a major impact on what was manufactured and its quality.

How did the location impact on sales and how were goods marketed? At first, as new twist manufacturer and then novice weaving concern, Haskell utilized the services of a selling agent. Through him a diverse and geographically scattered group of customers purchased tram, organzine, embroidery floss, sewing thread, gimp, fringe (thread for fringe) and machine twist.¹²⁷ The agent was a middle man who funnelled Haskell goods far afield from Saccarappa to a New York agency advertised as:

Kingman & Freeman. Dealers in Organzine Tram, Fringe Silk & agents for Streeter & Mayhew, Glenwood Mills, Haskell Silk Co., R. Childs, J. N. Kelsea and R. S. Clark. Salesroom, 57 Mercer Street. New York.¹²⁸

Locally, in Portland's Middle Street, retailer Woodman True & Company (today F. O. Bailey's) stocked Haskell threads. On March 2, 1881 the store ordered more than 50 dozen spools of silk.¹²⁹ If the goods were displayed (as twist usually was) shoppers were met with a vista of lustrous colors gleaming from silk wound on wooden spools, supplied to Haskell by L. Sprague & Co. of Lawrence, Massachusetts, and ranged in rows in white or bronze watered paper

boxes from Lowell box maker, Littlefield and Pease.¹³⁰ On box ends, the Haskell brand name glowed in red from labels, newly engraved and printed by Fred Wogram, Lithographic Engraver of New York.¹³¹

At this time American twist equalled and surpassed European thread but prejudice against the domestic product lingered due to recollections of antebellum American sewing silks which were much inferior to sophisticated Italian imports. As a result, in the interests of marketing, in the 1860s and 1870s a custom arose (later seen as unpatriotic) among some American twist producers to adopt Italian sounding trade names. Philadelphia's Franklin S. Hovey company used the name 'Hovacci.' New England's Florence Mill, the Nonotuck Silk Company, in addition to 'Nonotuck' employed the names 'Corticelli' and 'Bartolini' and Cheney sold 'Chinacci' thread.¹³² What the Haskell company chose as a brand name, if something other than Haskell, is left to the imagination. 'Hascelli'? 'Hascellini'? or perhaps like 'Nonotuck' something deliberately American--the Indian 'Saccarappa'?

Among numerous Maine consumers Haskells supplied C. H. Hills, Bangor (Anglo silk twist); Dirigo Knitting Mills (embroidery floss); C. E. Bean, Dry Goods, 549 Congress Street, Portland (machine twist); and L. Clemens, Millinery, Main Street, Saccarappa (twist).¹³³ Customers among the more than 150 small garment businesses (most using outworkers) and the approximately 100 footwear manufactures in Maine also accounted for Haskell sales. Before the advent of synthetics silk was the strongest thread and naturally found use in better boot and shoe stitching. At least one transaction indicates business with

the Maine State Prison where convict labor turned out boots and shoes.¹³⁴ Other Haskell customers scattered through southern New England ranged from the Ventilating Waterproof Shoe Company (machine twist), the Bay State Casket Company (gimp) and the Eastern Elastic Gusset Company (black tram) and C. A. Linneman (Canton fringe).¹³⁵

From these businesses--a small selection of one modest twist manufacturer's (Haskell) customers--there emerges a cacophony of crashing shuttles, whirring sewing machines and sense of frenzied productivity. Multiplied a thousand times over to include all the similar concerns in New England, they convey something of the competitive tempo of times in which the young Haskell company had to find and maintain a market. With an agent to drum up the vast spread of customers, sampled above, apparently the plant's removed situation was no hindrance to marketing. Nevertheless the problem of twist overproduction depressed prices in the early '80s so that no matter how numerous the orders, the volume was often unsatisfactory and generated slim profits.

At some time soon after Haskell's switch from twist to textiles in the 1880s, the company transitioned away from reliance on an agent to direct sales. This move is as much a barometer of their new role as a fabric manufacturer in a crowded industry as it is of the changing role of agents. Originally agents took care of marketing, investigated credit worthiness and collected accounts, all of which allowed the manufacturer to concentrate on production. With the cash from the prospective sale of goods as collateral agents also advanced money to the manufacturer so he could keep production going while waiting for payment to

come through. However the arrangement was open to dubious practices and as competition increased the manufacturer was often placed at the mercy of the agent's manipulation.¹³⁶

The alternative type of marketing organization, direct selling, was the one evidently adopted by Haskell now a yard goods manufacturer:¹³⁷

A company with ample capital ordinarily sells directly to the retail trade as well as to the clothing manufacturers, and has a large selling organization consisting in part of traveling salesmen. With its own organization it frequently covers only the large towns and cities and sells to jobbers [odd lots] for distribution to small towns and country places.¹³⁸

This strategy is clearly the means by which the Haskell Silk Company established markets across the entire United States and in every city from Maine to California.¹³⁹ Thus it is evident that the company policy--direct selling--not plant location was the major influence on marketing. Over the years Haskell maintained salesrooms at various New York addresses.¹⁴⁰

Seemingly the mill whereabouts never interfered with supplies, whether printed labels from New York or bales of silk from Japan. Likewise marketing proceeded successfully regardless of the mill's situation. Finally, the points discussed here show: first that the remote site molded the company's integrated organization; second that it was against the odds for a moderately sized manufacturer to float such a multifaceted operation; and third that this apparent weakness was in the end the company's strength. As a consequence of all processes taking place in one spot, there were limited unknowns, few variables and the maximum economy of means. During its peak years at each level of

production, experience and appropriate skills interlocked to streamline the manufacture of a superior product, which will be turned to next.

NOTES

- 1 Matsui, 27, gives the figures at 111,263 machines produced in 1860 and 578,911 in 1870. cited from the 1860 census reports, p.191 and 1870, p.623.
- 2 Allen, 57.
- 3 Brockett, 78-79.
- 4 Allen, 48-50. The New Hampshire silk firm was Kelsea's of Antrim and the Vermont operation was Stearn's of Brattleboro..
- 5 Wyckoff, American Silk, 46.
- 6 1877-1880 were economically and socially unstable years and there were strikes in Paterson. Herbert Gutman, Work, Culture and Society (New York: Vintage Books, 1976.), 242-254.; Brockett, 173, refers to silk workers strikes delaying production in the 1870s.
- 7 Wyckoff, Silk Goods, 75.
- 8 Ibid.
- 9 Ibid.
- 10 ASJ, (November 1882), 188.
- 11 Silk Association of America, Annual Report, 1886, p. 68.
- 12 First Exhibition and Fair of the Maine Charitable Mechanic Association. Exhibition Program 1838, 53.
- 13 Official Program of the Commemorative Exercises of the Hundredth Anniversary of the Incorporation of the Town of Stroudwater. Name changed to Westbrook, June 9th, 1814 (Westbrook: H.S. Cobb, Printer, 1914), 12.
- 14 Description is from an interview with Westbrook nail maker Joseph Valentine's son Leander (born 1814) who became Westbrook's first mayor in 1885. The tenements referred to were probably lodgings for the many lumbermen engaged in timber extraction and haulage from the interior via Saccarappa to Portland's docks. Ernest R. Rowe and Marian B. Rowe, eds. Highlights of Westbrook History, (Westbrook: Westbrook Women's Club, 1952), 37.
- 15 From 1814-1871 the town of Westbrook included Saccarappa falls, the Stevens Avenue area, North Deering and the Deering-Woodfords district up to the sea at Back Cove. Westbrook assumed its current proportions when Deering became a separate town in 1871. Anecdotal evidence indicates the town names, Saccarappa and Westbrook, were used interchangeably which caused much confusion. Possibly Haskell started to use the name Westbrook after Westbrook became a city in 1891.
- 16 Account recalling Westbrook as it was in 1858, written by James Haskell's son Edwin. Unsigned. Private Collection. ECS.

- 17 Ibid.
- 18 The Ogdensburg line later became Maine Central Railroad and the Rochester became the Boston & Maine Railroad.
- 19 Dated 1881 invoices for bales of silk from New York dealers are inscribed "per W. S. Mail & District Express" and "via The Portland Boat" is noted on invoices from Howe and Goodwin, a Boston dye and chemical supplier. Invoices 1881, Haskell Silk Co., HBS.; S. D. Warren played a major role supplying mills, not just his own, with rags from every corner of the globe, which he imported on a grand scale and at one time made more money from that than paper. The first wood pulp was used at Westbrook in 1880s but rags continued to be used into the 20th century. Company newsletter, Warren's Standard 111 (January 1954): 11,1.
- 20 Portland Board of Trade Journal, Fiftieth Anniversary, 1903, introduction, n.p.
- 21 Official Program of the Commemorative Exercises of the 100th Anniversary of Westbrook, 14.
- 22 "Opportunities." Article in Westbrook Businesses and Businessmen, 1900-1910. No source given. Scrapbook, Red Binder. 6, Special Collections, WML.
- 23 Walter Licht, Industrialization of America: The Nineteenth Century (Baltimore: The Johns Hopkins University Press, 1992), 124.
- 24 Ibid.
- 25 Marshall W. S. Swan, Town on Sandy Bay. A History of Rockport Massachusetts (Canaan, New Hampshire: Published for the Town History Committee by Phoenix Publishers, 1980), 114.
- 26 Ibid., 116.
- 27 Ibid., 161.
- 28 Ibid.
- 29 Edwin Haskell letter, ECS.
- 30 Ibid.
- 31 Ibid.; Supplies of explosives were to be had conveniently from nearby Gorham's gunpowder mills at Gambo Falls. Also James Haskell was probably well informed on the subject of blasting since his home town of Rockport, Cape Anne, Massachusetts, was a granite quarry town
- 32 Haskell unpublished family correspondence, December 12, 1978, private collection; James S. Leaman, Historic Lewiston. A Textile City in Transition (Auburn, Maine: Lewiston Historic Commission, 1976), 13, cites details of war profits financing the purchase of new machinery and the construction of new mills in Lewiston.
- 33 Westbrook Chronicle, January 12, 1883, n.p.

- 34 Franklin Allen, Manual of the American Silk Trade 1873. Prepared by the Secretary of the Silk Association of America (New York: 93, Duane Street, 1873), introduction and preface.
- 35 Ibid., 6.
- 36 General Accounts Vol-A-1, Haskell Silk Co., HBS.
- 37 Chittick, 22.
- 38 Matsui, 124.
- 39 Certificate of Incorporation. Haskell Silk Company, 11-23-26. Maine, Office of Secretary of State, Augusta, Records of Incorporation, Records Vol.1, 243.
- 40 General Accounts A-1, Haskell Silk Co., HBS. The Pooles were relations by marriage: Mrs. Haskell was a Poole; Wm. W. Poole was probably James Haskell's nephew.
- 41 Philip Scranton, Proprietary Capitalism. Textile Manufacture at Philadelphia, 1800-1885 (Cambridge: Cambridge University Press, 1983), 3 ff.
- 42 Ibid., 42, 53.
- 43 Charles G. Scontras, Collective Efforts Among Maine Workers: Beginnings and Foundations 1820-1880 (Orono, Maine: Bureau of Labor Education, 1994.), 265-26, shows the following: in 1870 most mill operatives in Maine were American born with some English and Irish; by 1873-75 the majority of Maine textile workers were French-Canadian; St. Hyacinth's Parish Chronicle. 1879-1979, St. Hyacinth's Church, Westbrook, 8
- 44 Chittick, 2.
- 45 Ibid.
- 46 ASJ (November 1882), 88.
- 47 Records of the Haskell Silk Company. Maine, Office of the Secretary of State, Augusta.
- 48 An account of Gerhardt's career was published on the occasion of his retirement in 1923, after 40 years with Haskell; Portland Evening Express and Advertiser, September 19, 1923, WML Clipping File, #17,19.
- 49 Wyckoff, Silk Manufacture 1883. 60.
- 50 Ibid.
- 51 Theodore Gaudreau was identified by Eva Thibault who donated the photograph to St. Hyacinth's Historical Society. Ernest Gerhards was identified by the author from a photograph taken much later on the occasion of Gerhardt's retirement in the 1920s.
- 52 WML, Scrapbook, Red binder, 7.

53 Records show Haskell ran 50 looms in 1888; ASJ, April 1889, announced the addition of looms at Haskell; in 1889 Haskell is listed as a manufacturer of dress silks and satins with 75 looms in Davison's Blue Book, 2nd Annual Edition (New York: Davison's Publishing Co, 1889), 66.; Matsui gives the chronology of loom widths, 144.

54 H. J. Habakkuk, American and British Technology in the Nineteenth Century (Cambridge, England: University Press, 1967), 59.

55 Mason, 134.

56 WML, Scrapbook, Red Binder, 7.

57 Ibid.

58 Davison's Travellers Edition 1902-3.

59 "The Home of Famous Silks," Portland Board of Trade Journal, 1903, 354.

60 Ibid.

61 Mason, 132-5.

62 Matsui, 144.

63 Ibid., 134, gives a discussion of over production.

64 ASJ (October 1894) published a feature commenting on the quality of Haskell pure dye silks.

65 WML, Scrap book, Red Binder, 2.

66 "The Haskell Silk Mills," WML scrapbook, Red binder, 42.

67 Conversation with Mrs. Eleanor Conant Saunders who recalls family members who were pickers and remembers the special barrows that were used.

68 Licht, 128.

69 Matsui, 246-250, describes Cheneys as a model of welfare capitalism. The company rented attractive houses to workers, maintained boarding houses for single workers and among other things supported pension schemes, medical services and an education division. A carefully constructed point system took a number of variables into consideration to calculate what was mutually considered a fair pay rate. Records show the low turnover of workers and high productivity. He also outlines attempts by several other Connecticut silk companies to run their factories along the ideas in John Leitch, Industrial Democracy (New York: no publisher, 1919). Organized as miniature democratic states, these factories permitted a level of worker input which, again, resulted high productivity.

70 Accounts, Haskell Silk Co., HBS.

71 Portland Sunday Telegram, Westbrook Edition, June 7, 1914. n.p. ECS.

72 Accounts, Haskell Silk Co., HBS.

- 73 Matsui, 110-111, outlines this industry problem.
- 74 Wood, 10.
- 75 Portland Evening Express, August 3, 1922. WML clipping file #5, 84.
- 76 Records of the Haskell Silk Company. Maine, Office of the Secretary of State, Augusta. August 2, 1922, Vol. 15, 193.
- 77 Ibid.
- 78 Portland Evening Express, August 3, 1922. WML Clipping File, # 5, page 84.
- 79 Ibid.
- 80 Ibid.
- 81 Private collection, newspaper clipping, undated and source unidentified, but apparently written in the mid-1930s, relates that at some point after company reorganization--whether in 1919 or 1922 is unclear--the mill attempted to update its output and move to "sport silk." A subsequent shift to rayon cheap goods had "dire" results leading to "intermittent production."
- 82 Portland Evening Express, November 16, 1922. WML Clipping file # 5, 80.
- 83 Unpublished Haskell family letter confirms that the company did not update and could only make narrow goods in the twenties.
- 84 Matsui ,144, cites popular fabric widths: 1880-1890 from 19-23 inches; 1890-1900 from 26-36 inches; 1900-1910 from 42-54; by late 1920s some fabrics were 72 and 92 inches.
- 85 Portland Evening Express, October 1, 1925, WML Clipping file B/C, 44.
- 86 Wood, 82.
- 87 Melvin T. Copland and W. Homer Turner, Production and Distribution of Silk and Rayon Broad Goods (New York: The National Federation of Textiles Inc., 1935), 1.
- 88 Ibid.
- 89 Ibid.
- 90 Davison's Handy Edition, 1921, 532.
- 91 Davison's, 1925, 555.
- 92 Davison's, 1926, 590.
- 93 Copland and Turner, 1.
- 94 Ibid.

- 73 Matsui, 110-111, outlines this industry problem.
- 74 Wood, 10.
- 75 Portland Evening Express, August 3, 1922. WML clipping file #5, 84.
- 76 Records of the Haskell Silk Company. Maine, Office of the Secretary of State, Augusta. August 2, 1922, Vol. 15, 193.
- 77 Ibid.
- 78 Portland Evening Express, August 3, 1922. WML Clipping File, # 5, page 84.
- 79 Ibid.
- 80 Ibid.
- 81 Private collection, newspaper clipping, undated and source unidentified, but apparently written in the mid-1930s, relates that at some point after company reorganization--whether in 1919 or 1922 is unclear--the mill attempted to update its output and move to "sport silk." A subsequent shift to rayon cheap goods had "dire" results leading to "intermittent production."
- 82 Portland Evening Express, November 16, 1922. WML Clipping file # 5, 80.
- 83 Unpublished Haskell family letter confirms that the company did not update and could only make narrow goods in the twenties.
- 84 Matsui ,144, cites popular fabric widths: 1880-1890 from 19-23 inches; 1890-1900 from 26-36 inches; 1900-1910 from 42-54; by late 1920s some fabrics were 72 and 92 inches.
- 85 Portland Evening Express, October 1,1925, WML Clipping file B/C, 44.
- 86 Wood, 82.
- 87 Melvin T.Copland and W. Homer Turner, Production and Distribution of Silk and Rayon Broad Goods (New York: The National Federation of Textiles Inc., 1935), 1.
- 88 Ibid.
- 89 Ibid.
- 90 Davison's Handy Edition, 1921, 532.
- 91 Davison's, 1925, 555.
- 92 Davison's, 1926, 590.
- 93 Copland and Turner, 1.
- 94 Ibid.

- 95 Newspaper account, July 11, 1927. Paper unidentified. WML Clipping file #9, 112.
- 96 Portland Evening Express, April 1, 1928.
- 97 Portland Evening News and Advertiser, December 11, 1930, WML Clipping file #8, 89.
- 98 Patricia C. Odonell, "Fantasy and Realism Combined: The Manufacture of Silk at Pelgram and Meyer" in Philip B. Scranton, Silk City. Studies on the Paterson Silk Industry, 1860-1940 (Newark, New Jersey: New Jersey Historical Society, 1985), 104.
- 99 Copland and Turner, 56.
- 100 Davison's, 1926, 590.
- 101 Ibid.
- 102 Unpublished Haskell family correspondence.
- 103 Undated, unidentified newspaper clipping, ECS; Another, different, undated, unidentified newspaper clipping, Mr. Richard Haskell.
- 104 Newspaper clipping. no source or date. ECS; James Stuart Olson, Herbert Hoover and the Reconstruction Finance Corporation, 1931-1933, (Ames, Iowa: The Iowa State University Press, 1977. Provides a general review of the R.F.C. and the way it operated.
- 105 Bachofen patented a piece dyeing machine; see Portland Sunday Telegram and Press Herald, ca. 1927-1928. WML, Clipping file Red binder, 12.
- 106 Eva Thibault donor of the 1870s photograph of Haskell mill hands identified Napoleon Goudreau and claimed that he worked as a "twister" for 57 years. The twisting machine doubles and twists together several single (cleaned) silk threads. The amount of twist varies depending on end use. Uniform count is essential.
- 107 Chittick, 70.
- 108 Matsui, 132, cites Atwood's inventions and the general improvements in throwing output with the resultant reduction in labor required.
- 109 In the 1870s there were regular monthly transactions with Wood & Smith for dyeing pounds of silk [skeins] and other payments to J. W. Perkins & Co. apparently for dye services. The Agents book also refers to Greppo the Paterson dye company. Agents Book and Accounts A-1, Haskell Silk Co., HBS; Note that Perkins sold paint, oil and dyestuffs from a store on Commercial Street, Portland
- 110 Albert H. Heusser, The History of the Silk Dyeing Industry in the United States (New Jersey: Silk Dyers Association of American, 1927), 493.
- 111 Ibid.
- 112 Portland Sunday Telegram and Press Herald, undated clipping (probably 1929 or 1930). WML Red Binder, 12. This description of Bachofen's invention of a new piece dyeing machine and the patents granted

to him for this and other inventions in 1927 and 1928 testify to his skills and expertise in the special field of silk dyeing.

- 113 Chittick, 98, emphasizes the amounts of water required in silk dyeing.
- 114 Ibid., 106.
- 115 ASJ (May 1898), 17-18.
- 116 "A Libel on the American Manufacturer: Domestic Versus Foreign Silk," ASJ October, 1894, n.p.
- 117 Ibid.
- 118 Agent Accounts, Haskell Silk Co., HBS.
- 119 Chittick, 91
- 120 Portland Evening Express and Advertiser, September 17, 1923. WML clipping book #17, 191.
- 121 Ibid., 90.
- 122 Ibid.
- 123 Chittick, 92.
- 124 Agent Accounts, Haskell Silk Co., HBS, 560, 583, 595. WML, Clipping file, Red Binder, 7.
- 125 Westbrook Residents & Businesses Directory. 1891, 10.
- 126 Chittick, 294
- 127 Agent Accounts, Haskell Silk Co., HBS.
- 128 Wyckoff, Silk Goods, 118.
- 129 Invoices, March 2, 1881, Haskell Silk Co., HBS.
- 130 Ibid., July 1, 1881 and June 4, 1881.
- 131 Ibid., April 27, 1881.
- 132 Wyckoff, Silk Goods, advertisements, x and xvi; Allen, 19.
- 133 Agent Accounts, Haskell Silk Co. HBS, 136, 341, 513, 578.
- 134 Agent Accounts Haskell Silk Co., HBS; Scontras. 323. Silk thread is stronger than cotton or linen and was used to sew some kinds of shoes.
- 135 Agent Accounts Haskell Silk Co., HBS.

136 Matsui, 170.

137 A report on the company reorganization refers to "Ernest Dresser for a good number of years sales manager." Newspaper account August 3, 1922. Paper unidentified., WML, Clipping file 5, 84.

138 Ibid., 168.

139 Portland Board of Trade Journal 1903, 354.

140 In 1888 Haskell is listed as a manufacturer of grosgrains and dress goods that "sells own goods." Dockham's American Report and Directory of the Textile Manufacture and Dry Goods Trade (Boston: C.A. Dockham & Co., 1888); Davison's Blue Book, records the Haskell salesroom in 1889 at 74 Worth Street, New York, in 1903 at 70 Greene Street, New York and in 1919 at 440 4th Avenue, New York.

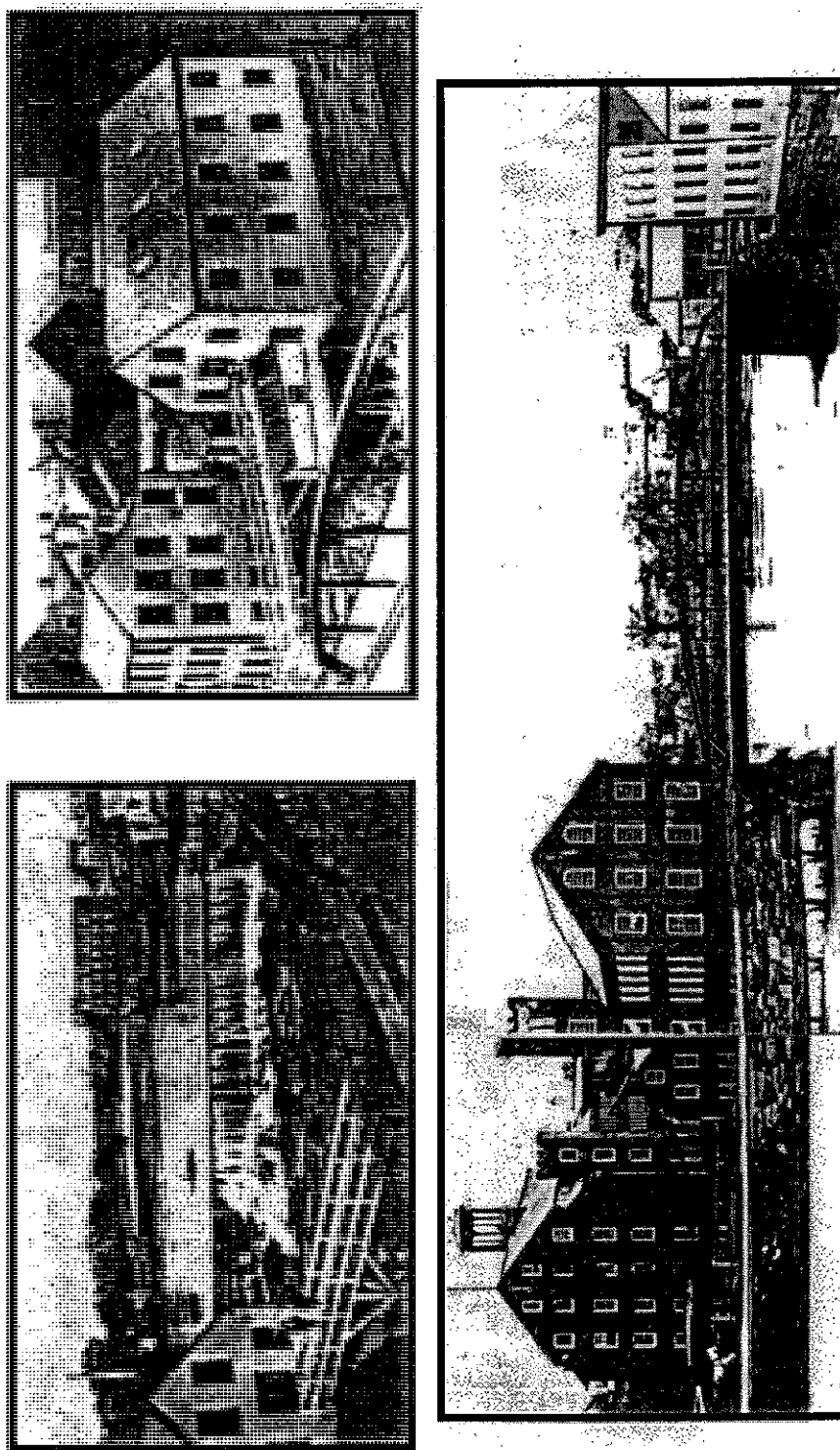


Figure 2.1. The original Haskell silk mill. Top, left, looking up river, the 1874 Haskell silk mill left below the fall; top, right, view of the original mill from the bridge looking south; below, composite view, left, the Westbrook Manufacturing Company cotton mills and right, across the bridge the silk mill with an early extension filling the space where the walkway used to be.

Courtesy Walker Memorial Library and Warren Memorial Library, Westbrook.

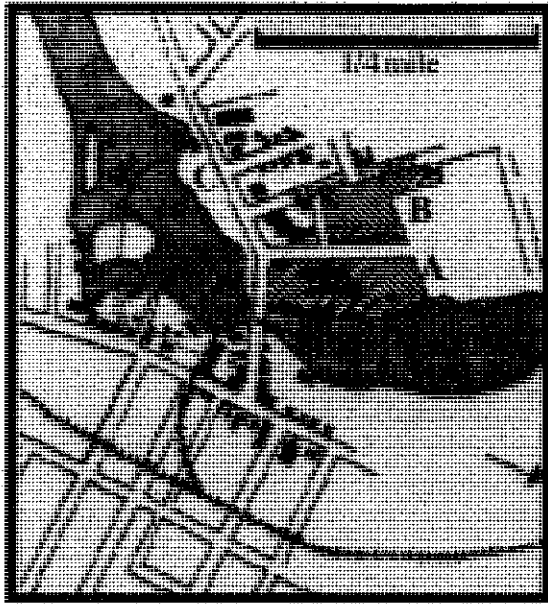


Figure 2.2. Westbrook Manufacturing Company.
A Cotton mill complex ca.1871
B Westbrook Manufacturing Company worker housing
C Bridge Street

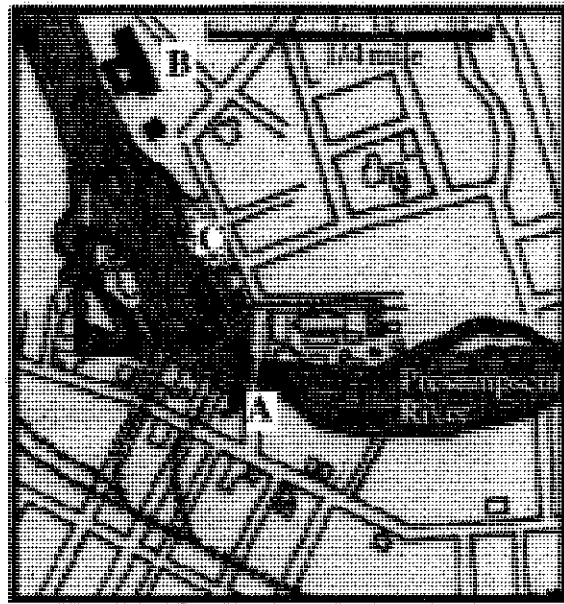


Figure 2.3. Haskell silk mill locations.
A Original silk mill, south bank, Bridge Street
B New brick silk mill, north bank 1902
C Dana Warp mill

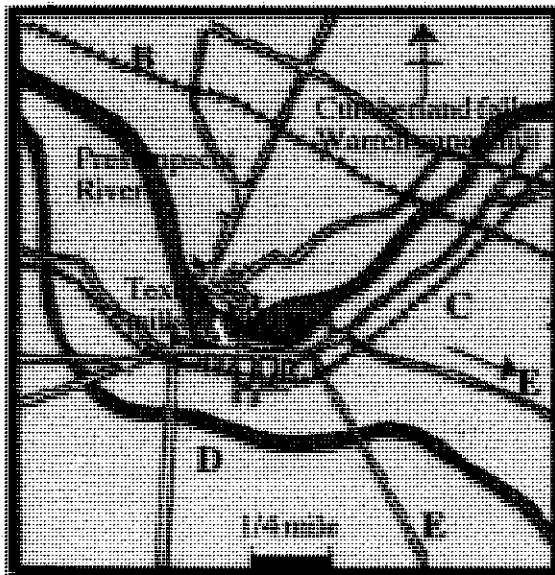


Figure 2.4. Transport at Westbrook.
A Saccarappa lower falls
B Ogdensburg Railway Line
C Rochester New York Line
D Cumberland Oxford canal
E Routes to Portland

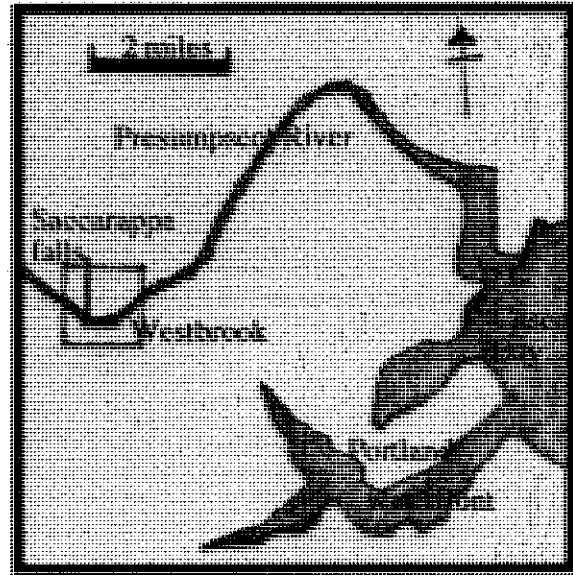


Figure 2.5. Saccarappa's location 5-6 miles inland from Portland's harbor.



Figure 2.6. Detail from an 1879 panoramic view of Westbrook. The very small Haskell silk mill is almost invisible, located immediately to the left of the bridge on the south bank. The Westbrook Manufacturing Company mills are on the north bank at the right of the bridge. Both mills are situated below the lower Saccarappa falls.

Courtesy Walker Memorial Library, Westbrook.

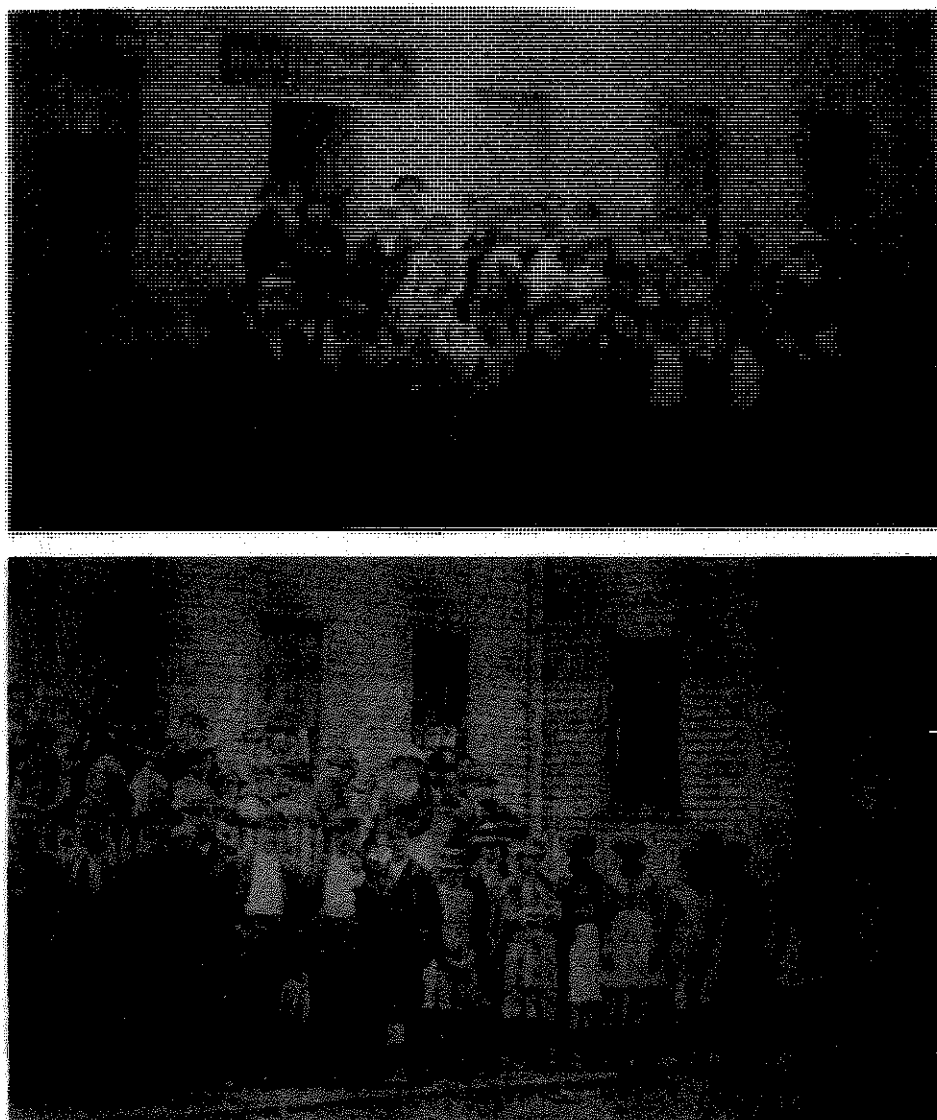


Figure 2.7. Two enlarged details from a faded photograph of Haskell mill workers outside the first mill extension in Bridge Street. In the full photograph there are approximately 40 workers visible--some show only as faces at the windows. Top left, the company name is also visible at the left of figure 2.9; below, the group seems to be composed of about an equal number of males and females. The latter includes a number of young teenage girls. The style of the hats and the young women's high waisted, hooped skirts suggest styles of the early to mid-1870s. If a fashion time lag is allowed for, this photograph probably dates from the mid to late seventies. Although this seems like a very spontaneous shot, the fact that everyone is wearing a hat and the young women wear hoops suggests that they changed from work to street attire for the photograph, which was taken by a local concern, Goodwin Photography, Saccarappa.

Photographs by the author courtesy St. Hyacinth's Historical Society, Westbrook.



Figure 2.8. Haskell mill workers. Details from a group photograph dated 1889. The women, tightly corseted, look as if they are dressed in their best which suggests that this photograph commemorates a special event. Perhaps the occasion was the opening of a mill addition. New looms were purchased in 1889 and the group is seated in front of the mill extension seen in Figure 2.9. Napoleon Goudreau who reportedly worked in the mill for 56 years, its entire span of operation, is third from the right in the back row. He was identified by the photograph donor. Bearded Ernest Gerhardt is seated in front of the man in white, fourth in the back row—identified by the author from a photograph on the occasion of his retirement. The original photograph by The Portland Photographic and View Company.

Photographs by the author courtesy St. Hyacinth's Historical Society, Westbrook.

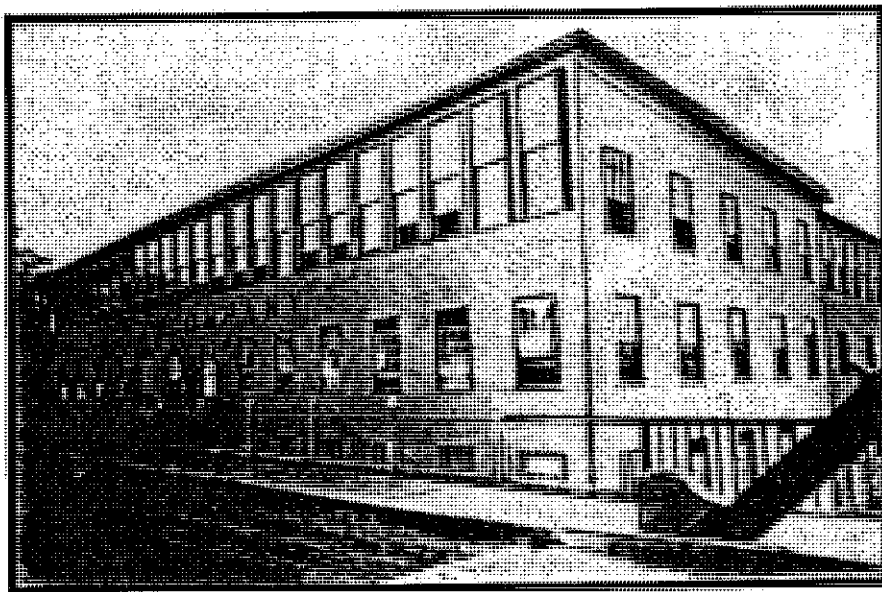
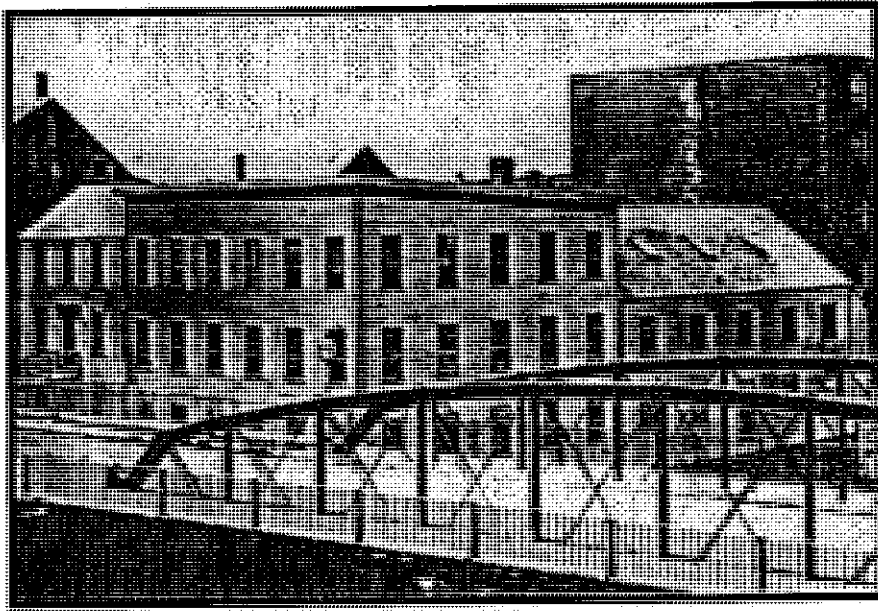


Figure 2.9. Haskell Silk Mill expansion on Bridge Street. Top, large structure in front of the original mill, at far right. At far left the doorway with the Haskell signboard, seen above the mill workers in Figure 2.7; below, on the same site, a later even larger extension, ca.1889. The number of looms was increased from 50 to 75 in 1889. At right the original mill now has a third floor and all of the top floor has very large light giving windows. The mill workers in Figure 2.8 are seated in front of this building. These structures no longer exist.

Courtesy Warren Memorial Library, Westbrook.

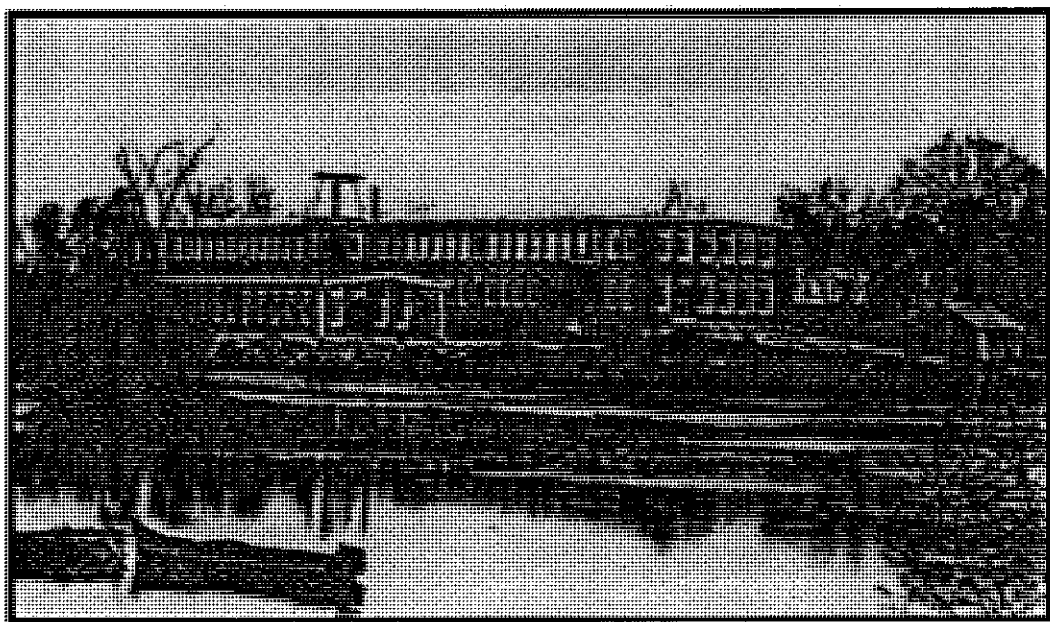


Figure 2.10. The new silk mill built 1902 on the north bank above the upper falls. The dye house is in front of the mill, near the river. View from the south bank looking north.

Courtesy Walker Memorial Library, Westbrook.

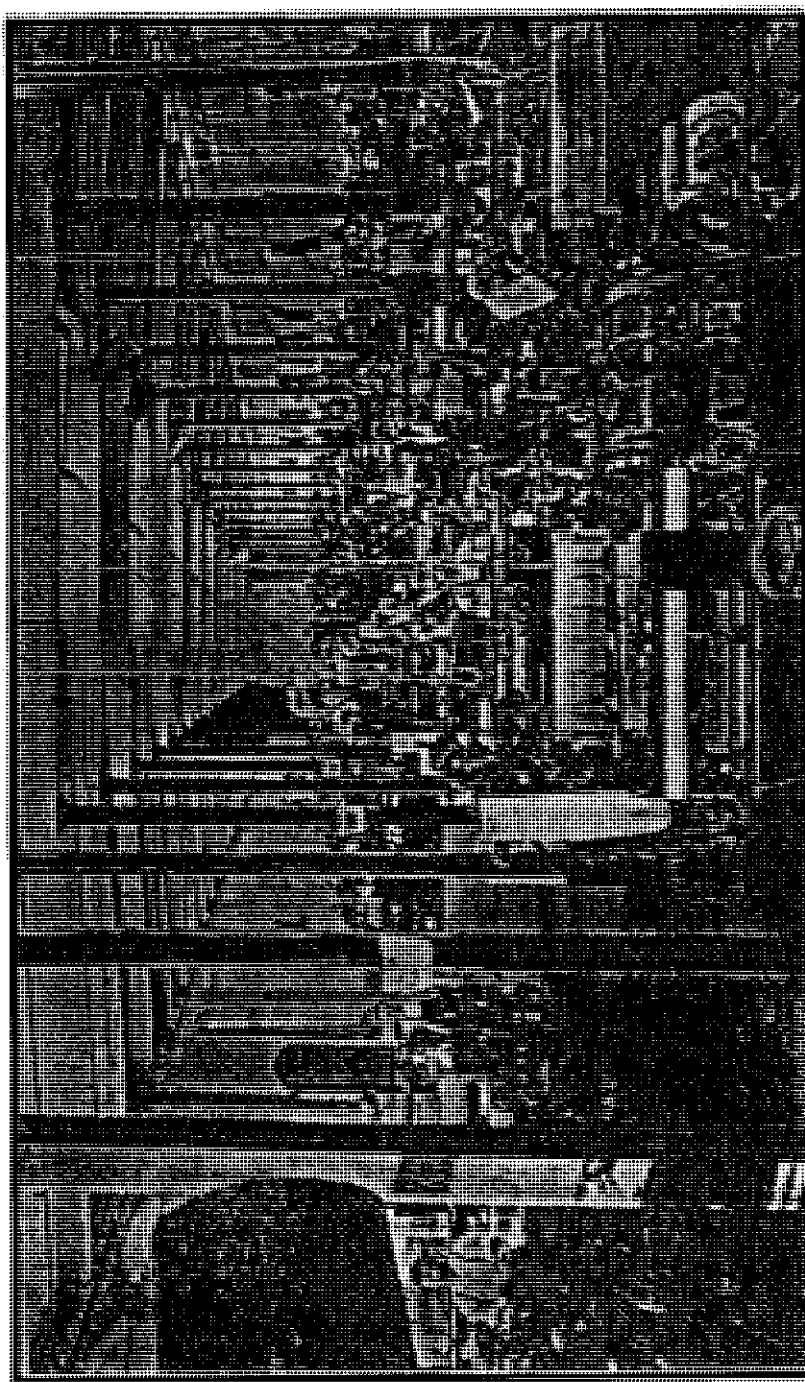


Figure 2.11. Inside the new Haskell Silk Mill, from an undated postcard. It is difficult to see the looms clearly or count how many there are. The looms appear to be plain 42 or 48 inch wide, 5 harness. There is no sign of any Jacquards. The operatives are all male.

Postcard image courtesy Peter Haskell.



Figure 2.12. The Haskell mill building today, adapted for other uses. View of the north side.

Photograph by the author.

CHAPTER III

HASKELL AND U.S. INDUSTRIALLY MANUFACTURED SILK PRODUCTS

Few recent textile studies focus on the U.S. silk industry. A number of earlier works exist, but these inquiries deal with facets of technology, labor relations, history, international trade and economics of the industry. Some of the studies provide useful statistical surveys that variously record the value and volume of U.S. silk production, and analyze cost per unit and tabulate the different classes of silk goods. Among them however, little attention is paid to the product itself--American industrially manufactured silks. Nonetheless these textiles were an expression of the times--late 1800s through 1920s--they were shaped by the culture of that period and of course, they also shaped that culture in turn. In this chapter (as in the introduction) American machine made silk fabrics will be called the collective artifact and the artifact will speak as eloquently as statistics and written records--albeit on different aspects of the product.

The objective in this chapter is to interpret the Haskell product. A close reading of a textile imparts information about the threads used, the fabric quality and the factory's manufacturing capability. However, in this instance, it is difficult

to pursue this line of investigation because there is only one extant fabric sample definitively linked to the Haskell mill. Therefore this attempt to interpret Haskell silks must rely on a variety of resources: agent's records, stock records, advertisements, and comparison with goods made by other manufacturers of the same period. Thus the discussion will range across U. S. industrially manufactured silk goods and not be confined narrowly to Haskell. Nonetheless within this broader study of the nature and characteristics of American silks every effort will be made to engender a picture of Haskell products and read what they have to say.

The assemblage of silk artifacts reviewed here includes the few existing fabrics connected in some way to Haskell and a selection of other silk articles. This collection suggests the type of silk products produced by Haskell and many other mills between 1870-1930. The representative sample consists of silk scraps from the Saccarappa community sewn into a simple patchwork quilt (ca. 1920) by Haskell mill hands, assorted silk remnants owned by members of the Haskell family and silk garment fabrics, trimmings, and ribbons in the Maine Historical Society Collection.¹ An examination of these textiles and a review of an assortment of other manufactured silk products will attempt to answer a number of questions. What kind of threads did Haskell and other companies make and what do they reveal about the silk industry in its first decades of development? How did silk fabrics change over time? And, finally, what definitive characteristics distinguished these American silk goods from silk products made elsewhere?

Yarns and Thread

The terms thread and yarn are used to describe the constituent components of woven and knitted textiles. Yarn is a more general term, and it is widely applied to elements less highly processed than those described as thread.² The term thread suggests something "finer or more twisted and finished" and is used in reference to sewing elements and for yarns used specifically in warps and fillings.³ From the outset Haskell was in the business of manufacturing highly processed threads--the product fundamental to the development of the late nineteenth-century burgeoning silk textile, trimming and garment making industries.

At the Saccarappa mill, workers first opened the imported bales, unpacked skeins of raw silk, sorted them into thin, thicker and thickest sizes and put them through a series of washing and degumming processes.⁴ The simplest thread, singles, consists of several raw silk strands wound together without any twisting. Because twisting requires power, the greater the amount of twist the greater the manufacturing expense. Throwing, as this twisting process is called, involves variable degrees and levels of complexity of twist. Two or more strands of singles twisted together loosely at an average of five to ten twists per inch form tram (filling). Organzine (warp) is made differently. Because strength is a prerequisite in warp, three or more strands of singles are twisted first in one direction (right to left) and then two, three, or a greater number of the resultant threads are plied

together in the opposite direction (left to right) at sixteen or twenty twists per inch.⁵ Machine twist is similar.

The records (Table 2.2) show the Haskell mill was initially set up with throwing machines from Atwood, pioneers of such equipment. Installation of a stretcher soon followed. This piece of equipment, standard by 1870, was essential for sewing twist manufacturers to "pull component strands in the threads so they are brought to an even thickness."⁶ Twist (machine thread) must be even in diameter and very highly twisted to withstand the tension and friction of high speed stitching. While this machine twist was very satisfactory for hand sewing, the thread made at this time for hand stitching was unusable on a sewing machine. Within each of the two thread categories, hand and machine, there are numerous variations, each designed for a particular end use. An idea of the assortment of threads Haskell likely manufactured is gleaned in part from sparse company records and from advertisements for a similar product made by another thread company.

No examples of Haskell threads survive, but Haskell agent J. P. Jordan's account book shows sales of organzine, tram, machine twist, hand sewing thread, floss (embroidery thread) and coarser gimp (for narrow trimmings or fringe). Haskell customers ranged from prison boot makers and waterproof shoemakers to retail stores and small town dressmakers therefore it is apparent that this company, like many concerns, manufactured different sizes and qualities of thread within each class.

An idea of Haskell possible product line and an indication of the richly nuanced character silk sewing threads had achieved by the late 1870s is provided

by an advertisement for another manufacturer--Newark's John D. Cutter and Company. This firm eschewed the custom of Italianate names and used the trade mark "Salter and Cutter" on its spool silk, machine twist, hand sewing silk, hard wearing buttonhole twist and embroidery threads, offered in "black and also in every shade and color to match dress and millinery goods."⁷ The advertisement emphasizes special features (no doubt present in the Haskell product) such as threads made from "the choicest Quality Raw Silk," uniform sizes to correspond with sewing machine needle sizes, and an assortment of "Machine Twist Size Numbers." Illustrations show eight twist sizes, from 150 (thinnest) to 30 (thickest). A line drawing depicts Cutter's special "Tailor's Buttonhole Twist" in sizes: 24, 22, 20, 18, 16, 14, 12, 10 and 8 and indicates that the three seemingly most popular machine twist sizes--number 100, "adapted for fine work," number 70, "adapted for strong work" and number 16, "Buttonhole Twist," "also well adapted for heavy work or embroidery"--are available in every shade and color. By the late 1870s, as this Cutter advertisement and Haskell records testify, thread manufacture was already a highly developed and exact process in which thickness, twists per inch and end use were the outcome of precise specifications.

Like Cutter, Haskell also marketed a full range of colors. Invoices show that at the height of the company's twist manufacturing days, Howe and Goodwin, a Boston chemical and dye company regularly dispatched supplies of natural and aniline dyes to Haskell via the Portland boat.⁸ The dyestuffs and chemicals listed indicate that Haskell produced threads in blues, yellows, purples, reds, pinks browns, olives, drabs, blacks and silvery grays plus other variations

possible by mixing colors. "Pure Dye Machine Twist" appears among entries in agent Jordan's account book. The Cutter advertisement likewise shows the Newark firm made threads "dyed-pure, without adulteration or weighting matter."

The term "pure-dye" was understood to mean silk in which the weight of dye replaced (but did not exceed) the weight of natural gum lost in processing. A pound of silk typically weighed 12 ounces after the gum was boiled off, but four ounces of dye returned the silk to its original weight of 16 ounces.⁹ This was known as standard pure-dye.¹⁰ Four ounces seems a substantial amount until it is compared with European examples where a pound of silk sometimes weighed 18 or 25 ounces after dyeing and weighting with minerals.¹¹ Haskell and Cutter pure-dye products highlight the characteristic that largely distinguished American-made silk threads from their European counterparts. This difference, unadulterated versus adulterated, is detectable through chemical analysis and, more obviously, through superior wearing properties. Unadulterated silks were more durable. Further laboratory analysis of Haskell, Cutter and other similar manufacturers' threads would show some late-nineteenth and early-twentieth century thread colors to be the product of natural dyestuffs while others were achieved through chemical dyes.¹²

Colorful glossy spools of home sewing thread were often displayed in elaborate wooden cases supplied (at considerable expense) by manufacturers.¹³ Described earlier, Portland's Woodman & True dry goods store likely displayed twist from the Westbrook silk firm which, again like Cutter, "put up (twist) in

Small Spools Especially Designed for First Class Retail Trade and Domestic Use.”¹⁴ Spool silk was so called to distinguish it from large skeins prepared for fringe makers and hand sewing thread sold in hanks, the traditional format, before the advent of sewing machines created a prevalent need for thread on wooden spools.¹⁵ Perhaps some of the young Haskell employees, seen in the 1870s photograph (Fig.2.7), tended an automated L. D. Brown and Son machine, patented June 4, 1872, to wind a standard weight of silk thread (eventually a set yardage) onto standard spools.¹⁶ Such devices aided both the packaging of small spools (1/4 ounce, later 50 or 100 yards) for dressmakers and home use and the put up of thread in larger, practical sizes to accommodate the high volume needs of garment, corset and shoe manufacturers.¹⁷

Trimnings: Braids, Fringes and Ribbons

Fringes and passementerie; furnishing and funerary trimmings; lace and hair nets; masonic, theatrical and military braid; ribbons and handkerchiefs all counted among the decorative and narrow textiles goods that made up an ancillary, but very significant division of the silk industry. Originally hand made luxuries confined to elite and fashionable stratas of society, these articles, like so many others, proliferated in the late 19th century, an age of mechanization and growing middle-class consumption. In the first decades after the tariff, U.S. silk textile manufacture was almost exclusively concerned with the production of these narrow goods and ornamental items. Steady growth in this sector reflects, among

other things, an increased production of silk threads--the fundamental ingredient required to manufacture such goods.

Haskell most likely filled large orders for categories of thread destined for use in the manufacture of trimmings. The company organzine and tram were marketed to New York agent Kingman and Freeman and thence distributed to a variety of manufacturers, some very likely trim makers. Agent Jordan's book includes many New York and Paterson customers for Haskell Canton fringe (thread).¹⁸ Nearer to home, Boston's Bay State Casket Company made regular purchases of gimp (a coarser thread). Because both Canton and gimp were typically utilized in trimming and fringe making, an examination of almost any example of these goods provides an idea of what this category of Haskell thread looked like. There is rarely a means of knowing for sure who the thread manufacturer was. However one thing is certain: Haskell threads, dispersed among numerous companies, contributed to the overall volume of twist, trimmings and narrow goods that accounted for most of the U.S. silk industry output in these years. (see Table 1.3)

Market growth for braids and fringe of all kinds (for both fashion and furnishings) began in the 1860s. Accelerated demand led the oldest established (1824) manufacturer of these goods, Philadelphia's Horstman Company, to enlarge their plant and showroom in 1873.¹⁹ In the same year Hartford's Tobias Kohn, who started manufacturing in 1865, also built entirely new, bigger, premises.²⁰ Presumably the latest mechanized labor saving machinery was also installed. Although Horstman pioneered Jacquard and power weaving for

narrow goods (coach lace, trimmings) as early as the 1820s, such processes remained exclusive and were not exploited on a large scale until the tariff, raw silk supplies and consumer expectations created propitious conditions after the Civil War. It must be assumed that when James Haskell planned his 1874 silk mill project he was well aware of all these developments and the growing requirements for producing thread for purposes other than sewing.

Rapid improvements in manufacturing methods in the 1860s increased the output of popular trimmings in all divisions of the trimming trade. A key component of ornamental trimmings--cord--was made from a core of wool, cotton or silk, covered in silk thread. By mechanical means it was converted into strips of braided cord. Passementerie consisted of pre-assembled loops and arabesques of "gimp or garniture made of cord and frequently ornamented with beads" popularly used to embellish bodices, cloaks and sleeves in the 1880s through 1910 and later.²¹ (Fig. 3.2) Another type of machine-made cord, turned out in many different degrees of thickness, was produced by twisting in the same way as rope. (Fig. 3.3). Jacquard patterns on narrow ribbon (used as trim) provided, among other effects, an embroidered look. (Fig. 3.3) Where mechanization increased production and reduced the cost of most trimmings, other specialized items--tassels, silk embroidered and crochet buttons--speak of continued costly hand work in those segments of manufacture, comprised primarily of small urban producers serving local fashion needs. (Fig. 3.4)

The trend in trimmings, as in all branches of industry, was toward reduction of labor and increased mechanization--even for complex passementeries as noted in Chapter I. This transition from hand to machine manufacture--a response to

popular market and economic forces--is well illustrated by silk fringe making. While imported early 19th-century Asian shawls had thick, long knotted fringes, a comparison of American made fringe available for the "middling-sort" in 1850 and that of 30 years later shows the early U.S. fringe likely to be made of threads attached to a fabric edge by hand and knotted into slim, widely spaced clusters. This formed an expensive (middle-class) statement in its day, but one that looks meager and sparse beside the 1880s version.²² By this date thick clumps of silk twist thrust down from elaborate machine woven headings and often row upon lavish row of fringe adorned cloaks and dresses.

The black silk fringe threads edging a wool cape clearly illustrate that fringes "begin in the mills where sewing silk and machine twist are made."²³ (Fig. 3.5) The low number of twists per inch, 10 in the black fringe and 14 in the brown evidence that the fringes are composed of less expensive thread--the Canton fringe and gimp yarns. (Fig. 3.5) Denser than the black example, the brown fringe has a dainty white and brown twill heading. Both examples are machine woven and cut apart. This is more easily visualized if the fringe is looked at horizontally, a perspective that also facilitates an understanding of the way yarns are machine manipulated to make decorative headings, notably on the gold fringe. (Fig. 3.6) The growing taste for rich fringe embellishment is further illustrated by the 1860s brown fringe where the dressmaker added alternate festoons of green crimped singles (left) and (right) strands of pink/black chenille. (Fig. 3.5) From the blue and black fringes it is noticeable that the practice of hand knotting continued through the 1870s. (Fig. 3.6) Where fringe making was concerned the problem was not merely to devise a mechanical means of bunching

threads, but to provide a machine with a capacity for quick adjustment to cope with increasingly rapid fashion shifts.

It seems certain that, in addition to use in lady's cloak and dress fringes and braids, the twist shipped from the Saccarappa mill found its way into other goods. Ribbon manufacture was another likely use for Haskell organzine and tram. While it is difficult today to imagine that the supply of thread to ribbon makers added up to anything of import, it must be recognized that at one time ribbon played a vital role in fashion and the silk industry. From the mid-nineteenth century to the 1920s, enormous quantities of U.S. silk ribbon were made in every width from twelve inches to a quarter inch.²⁴ Eventually, in department stores, each season's investment in ribbon stock and the level of subsequent sales significantly influenced a store's annual profit or loss. (see Chapter IV) In the form of frills, ruchings, loops, sashes, swags, flowers and bows, vast quantities of ribbon was consumed in the embellishment of hats, coats and dresses. (Fig. 3.7) Moreover, at a time when garments and hats lasted several years, each season's ribbon applied in the latest, modish manner provided an inexpensive means of updating appearances. This pattern of brief use followed by discard is evidenced by the minimal amount of ribbon that survives in relation to the quantity manufactured.

In terms of both output and expertise, ribbon making developed rapidly in the '60s and '70s. U.S. silk manufacturers explored a variety of woven effects and again demonstrated mechanical ingenuity. This time it was the further improvement of European style hand operated looms designed to weave many narrow strips at the same time. These "gang" (multiple strip weaving) looms

were transformed into labor saving power looms employed in both ribbon and handkerchief production. By 1876 only one girl was required to attend 6-10 ribbon looms operating at speeds of 200-250 picks (fillings) per minute.²⁵ At this time, 1875-76, both the production and consumption of ribbon increased by 50 per cent.²⁶ Did Haskell manufacture thread for use in ribbon making? With Kingman and Freeman distributing their product in the New York and New Jersey area, the location of many ribbon companies, it seems very probable.

The ribbon examples referred to here are in a pristine state because they are from mill sample books. They are not dated, nor is it certain that they are all of U. S. manufacture. It was common practice for U.S. mills to maintain a sample book as a source of ideas. Selection of the examples used in this study was based on three criteria: 1) that they (most) are not weighted and therefore seem more likely to be American, although attitudes to quality and weighting were different where ribbon was concerned. Ribbon was purchased for style, not wearing qualities; 2) that the assortment illustrate a selection of different widths (the examples range from a quarter to nine inches); and 3) that the mix provide a hint of the extraordinary, rich variety of styles encompassed by the term "ribbon" in the late nineteenth and early twentieth century. The samples are broadly grouped into stripes, Jacquard woven designs and printed warps--ribbons with a design printed on the warp before weaving which provides another means of weaving a doublesided multicolored design into the fabric.²⁷

The heaviest of all these ribbons is a 5 inch wide stiff cream satin and grosgrain stripe likely intended for millinery use, whereas the 4 1/2 inch pink satin

and cream faille stripe is light and supple, easily imagined as a fluttering sash. (Fig. 3.8) Other, more novel, stripe variations include a 3 1/2 inch glossy pink vertical rib crossed by black filling stripes and the ribbons with a combination of stripes of colored warps crossed by fancy weave textures. (Fig. 3.8) This ribbon suggest the neck bows often worn with waists (blouses) in the early 1900s. The 4 1/2 inch multi-colored warp stripe tafetta is woven in seven different color combinations. Another 4 1/2 inch plain ribbon has a 1 inch check border with a split (frayed) edge that bespeaks construction as a wide fabric subsequently cut in strips--an economic production method. Assorted mini-black and white woven checks edge some 3 1/2 inch brilliant blue, turquoise, magenta and purple tafetta examples. (Fig. 3.9)

One soft 5 inch "tafetta façonné" ribbon, with a printed multi-colored earth tone warp and single color Jacquard woven lotus flowers, has connotations of the Egyptian revival associated with Art Deco styling of the 1920s. The same era is evoked by the narrow pale colored grosgrain/brocade, with its geometric motifs, also suggestive of art-deco design. (Fig. 3.10) Three other samples have printed warps, a 1 1/2 inch grosgrain with Jacquard edging, a 3 inch picot edged tafetta with a red rose on a green ground and a 9 inch with warp printed side panels and block designs woven through the center. (Figs. 3.10 and 3.11) This example is black and white and may date from 1910-11 when these colors were in fashion.

Among the plain narrow group the turquoise watered ribbon is a classic, produced regularly in different widths as fashion dictated. (Fig. 3.12) On the other hand the cream twill 1 inch is functional rather than fashionable. It is the standard variety used inside 19th-century bodices to fasten the waist. The most

elaborately patterned Jacquard ribbons with their rich colors and designs, reminiscent of many found in Owen Jones, Grammar of Ornament (1856), lead to speculation that they date from the late 19th-century and the early phase of the U.S silk industry. (Fig. 3.12) On the other hand the oriental overtones of these designs evoke thoughts of the Ballet Russe and Schéhérazade and therefore suggest a later vintage, 1910-1920. In 1918 a contemporary observer remarked that silk fashion textile design inspiration of the time was eclectic, "often developed from Egyptian or Greek motifs, sometimes from Chinese or Japanese, which are effective in the bright colors and strong contrasts of these goods."²⁸

Because U.S. silk manufacture was so new in the 1870s, it is easy to assume that any technically sophisticated late 19th-century ribbon must be a European import. Some of them were. However the Silk Association of America records that, woven before spectators, silk Jacquard pictures amazed crowds at the 1876 Philadelphia Exhibition. The Silk Association also enumerated the sequence of U.S. ribbon development by 1880 as: 1) plain tafetta 2) plain grosgrain 3) satin-faced, plain 4) grosgrain and double-faced satin and 5) fancy Jacquard work.²⁹ In 1900 more than eighty five per cent of ribbons consumed in America were of domestic manufacture, largely because the tariff offset production costs and kept prices below those of foreign imports.³⁰ From early in the industry's progress manufacturers could, and did, make a complex selection of ribbons, and it is not far fetched to regard even the earliest and fanciest of the samples photographed here as very probably of U.S. origin. One of the leading

Paterson ribbon makers, Pelgram and Meyer, was established in 1873, a year earlier than Haskell.

Dress Silks

Although widespread manufacture of broad silk (wide yard goods) did not begin in America until the late 1870s, within less than five years 25 to 30 percent of the plain silk goods and an even greater percentage of textiles with modest one or two color brocade (woven) designs consumed here were of U.S. make.³¹ An enlarged photograph shows a textile detail from a "middling sort" swag fronted dress of the mid-1870s, a little before the period when U.S. broad silk manufacture began its major expansion thrust.³² (Fig. 3.13) This sample of gray silk is a balanced plain weave--the same sized warps and fillings cross alternately in a regular sequence. So simple and straightforward a construction seems the best choice for manufacturers new to fabric making. However, wide plain perfectly woven yardage is the product of experience. Imperfections are very obvious in an expanse of plain cloth, especially black, which offers no other distraction (pattern/texture) to the eye. Thus, without any reference to the dated dress, a glance at Figure 3.13 with its unevenness and occasional thicker thread immediately suggests that this less-than-perfect fabric dates from the early days of silk broadcloth manufacture (mid-1870s) and is probably the product of a hand loom.³³ As the secretary of the Silk Association of America remarked in 1880, "Fabrics of three years ago appear today so inferior that we wonder how they could have found a sale."³⁴ Mechanized looms are less tolerant of irregular yarns,

require even, well reeled and thrown threads, and produce a weave with a mechanical evenness. Perfectly woven plain silk fabric appeared in voluminous quantities as power weaving became the the norm. It is notable, however, that in other countries and in other circumstances expert hand weavers produced perfect plain silk cloth, but of a different character and in lesser quantities. An appreciation of the contrast between mechanized power weaving and hand weaving is conveyed in a statement by silk expert Luther Hooper:

The disadvantage of weaving by power is, that only webs which can be run for miles and are sure to sell largely are worth weaving at all. This means that anything special, of which only moderate quantities are required, cannot be obtained. Now, as most good things are special, either by design, color, or manipulation, with only the power-loom at work, their weaving could not be done at all at a profit. It is just here that the usefulness of the hand-loom comes in.³⁵

Foreign silk manufacturers drew upon centuries of experience of hand weaving. The Americans were beginners who benefitted from the knowledge and experience of immigrant silk manufacturers and workers. If the difficulties of good plain weaving are considered, even if the contribution of immigrant silk workers is taken into account, it seems reasonable to assume that all the new U.S. silk manufacturers of the time launched their endeavors with a basic, forgiving, not too complex a type of fabric. It appears, however, that for many companies, including Haskell, the initial foray into textile production involved both plain and Jacquard woven designs. Local newspaper accounts record, and Haskell agent's listings confirm, that between 1881 and 1884 the mill at Saccarappa manufactured textiles described as colored brocades and figured satins.³⁶ In the Spring of 1882 sales agent Jordan recorded:

April 20, 1882	To W. J. Moore & Co., New York City. 600 1/4 Yards Brocade
June 1, 1882	To John Anderson, New York City 761 1/4 Yards Figured Satin ³⁷

This pattern of production accords with 1880 reports from the Silk Association of America that "these goods (figured fabrics) began to be extensively made here before the plainer ones were so generally attempted."³⁸

Throughout the nascent broad silk industry a number of elements contributed to this surprising phenomenon of accomplished fancy weaves produced by beginners. Initial encouragement sprang from a drop in the costs of raw silk at the time, which made experiment economically viable.³⁹ This, in turn, facilitated a rapid transfer of technical know-how, already employed in narrow (ribbon) goods, seen above. In addition manufacturers quickly learned to use power looms to maximum advantage and that it was more profitable to use high quality raw materials because they caused fewer stoppages on the loom and hence cut down on expensive labor requirements.⁴⁰ The effect of all this was rapid growth in broadgoods output and more modestly priced (but still not cheap) dress goods gradually became more available in the 1880s.

All of the above indicates that as Haskell prepared to move into full scale textile production (1881-1882) the mill at Saccarappa acquired Jacquard looms and was the scene of experimentation. Nevertheless, as noted in Chapter I, the evidence suggests that the company did not continue production of figured

construction, plain weaves and plain weave variations, notably grosgrains (fashionable in the 1880s). In grosgrain threads go over and under as in plain weave, but thin warps are close set, often completely covering a thick filling to form crosswise ridges. (Fig. 3.14) Haskell grosgrain, announced in the American Silk Journal in 1882, speaks of the acquisition of certain level of technical skill in the production of exacting plainer fabrics, perhaps accomplished with the assistance of newcomer, loom-fixer Gerhardt (1882), who was an experienced weaver, recruited from Cutter, by now a weaving concern.

At Westbrook the company used their own thrown threads and chose the finest quality raw silk available at the time--Italian for the organzine warp and Japanese for the tram filling--a reflection of the growing American custom to use the best and of Haskell's committed to high quality.⁴² Table 3.1 records an example of the raw silk Haskell used in these years.

Table 3.1.--Data from the Haskell agent's record of expenditures 1882.Manufactured Goods

By weaving--silk used

Feb.	106 - 10 Italian organzine	\$742.66
Feb.	68 - 11 Japanese tram	\$412.12
March	110 - 8 Italian organzine	\$773.50
March	14 - 11 Japanese tram	<u>\$88.12</u>
		\$2016.40

[The numbers reference bale weight and raw silk quality.]

Source: Agent's Accounts, February/March, 1882, Haskell Silk Co., HBS.

An entry (one of many) records a credit note totalling \$15,033.97 to cover raw silk purchases from the Yamamoto Trading Company in March 1882 and gives an idea of the level of financing silk manufacture entailed. As noted in Chapter I raw silks were usually purchased on credit--six months for Asian but sometimes less for European.

In addition to grosgrain in these years, the company advertised quantities of another fabric, moire, which is grosgrain finished to create a "watered" look.⁴³ With very distinctively ridged grosgrain at one extreme and smooth looking tafetta at the other, there are hosts of variations in the rib or epingle fabric family. Design elements, finishes and special features are easily applied to rib weaves. Just as a compressed roller finish transforms grosgrain into moire, other finishes render taffeta papery or pliant. If Gerhardt's was in charge of these operations, his task was to make sure that each length of moire glistened consistently and every length tafetta rustled or draped according to the company standard. Two colors, one in the warp and another in the filling, produces a "shot" or changeable effect in light ribbed tafetta and as a local

Westbrook business journal commented proudly, "Haskell tafettas with black warps and colored fillings [were] justly noted."⁴⁴ In the late 1890s Sears catalogue offered ladies bicycling suit jackets and wraps (cloaks) lined with changeable silks. Haskell also manufactured a fabric known as jasper. This silk was grey in appearance, but was made from a black warp with a white filling or a white warp and black filling.⁴⁵ Between 1889 and 1907 company sales also record some rib variations--armure and barathea--both have a broken weft rib that gives a pebbly surface. Barathea was typically used as a tie-silk.⁴⁶ Among products advertised Haskell listed "neckwear."

A very different look--stripes--results if colored warps are organized in groups. (Fig. 3.15) Whether in rib, plain or twill weaves stripes of colored warps provide an inexpensive variety of options. Patterned textiles are manufactured with equal economy of means if a design is printed on the close set warp (as on the ribbons) before weaving. (Fig. 3.16) These fabrics require only one shuttle and one color of filling is woven throughout.

During the first phase of the silk industry's evolution, up to World War I, it was customary to dye the yarns before weaving. (see Chapter II) Therefore it is to be expected that where woven design was concerned, manufacturers thought in terms of effects produced through the manipulation of colored threads.⁴⁷ However, when threads (yarns) are dyed in skeins weighting is usually applied during the dye process. Since late 19th and early 20th century silk fabrics are yarn dyed, they are more likely to be heavier in character than later piece-dyed goods. Initially the piece-dye process did not lend itself to

weighting and such goods were less likely to be weighted or as heavily weighted. As a result early and better piece-dyed items tend to be more supple, a characteristic more typically found in clothing as the twentieth century progressed. By World War I yarn dyeing was largely replaced by piece-dyeing (weaving with white threads and then dyeing the cloth). This process is an efficient, economic means of coloring the vast yardage issued from automated looms. Although mass produced staples are not really "fashion goods," piece-dyeing is convenient for quick conversion to meet any emergent popular preference, because color decisions are taken after production. In the yarn dyeing process colors are decided well before the looms are even set up.

Whether the illustrated (Fig. 3.15) samples of rib fabrics are plain, with different colored warps and fillings, striped, yarn dyed or piece dyed, they represent variations of plain weave fabrics easily and economically made on conventional power four-harness, two-box looms. The thicker the fillings (fewer picks to the inch) the faster the weaving. Less time meant less expense, which translated into economically priced fabric. A similar looking, but cheaper fabric might be produced if a cotton filling was used for the ribs.

As noted above in other plain weaves, stripes down the length of the cloth merely require groups of colored threads to be organized in the warp the same as in rib samples above. (Fig. 3.17) In this situation weaving is straightforward--one color of filling is shot from side to side, from one box to the other. Horizontal stripes and checks, however, call for something else--a box loom with two or more boxes at one or both sides to handle different colored shuttles.⁴⁸ For a two-color horizontally striped fabric a 2 x 1 (2 boxes at one

side,¹ at the other) box loom facilitates the use of two shuttles, one for each color. (Fig. 3.17) The third box is required so that there is always an empty box to receive the shuttle. Westbrook Gingham and Songo Plaids, Westbrook Manufacturing Company staples, bear witness to the existence of numerous box looms in this cotton factory, and to James and Edwin Haskell's inevitable familiarity with such equipment. While it is impossible to know for certain, it seems likely that the Haskell silk mill manufactured striped and plaid dress goods (tafettas). (Fig. 3.17) However none of the company advertisements or American Silk Journal announcements mention such textiles, and the fabrics which are listed do not specifically require box looms.⁴⁹

The conventional four harness looms employed for the plain and rib weaves are also used to make fabrics with a twill construction, so without any special outlay Haskell had the capacity to produce this type of cloth. The characteristic diagonal twill ridges are generated when fillings cross warps in a stepped sequence. Again variations are easily achieved through colored threads. The twill dress fabric, possibly one of those Haskell advertised in the '90s, has a blue warp and green filling which gives an iridescent or shot appearance.⁵⁰ (Fig. 3.18) Of similar dress weight, another twill, consists of a narrow white warp stripe set at half inch intervals on a light navy background. (Fig. 3.18) These sturdy washable fabrics may be imagined sewn into smart serviceable waists (blouses). Where both of these twill examples are made from yarn dyed thread, other twills, regularly advertised by Haskell from the '90s on, were solid black, no doubt originally yarn dyed, but later piece dyed. Not available to be examined, these twills were alma royals (heavy double twill

originally used for mourning) and lining fabrics which in the late 19th century were often shot or changeable.⁵¹ The Haskell stock book records Rhadame, a heavy 12 harness twill used for mourning. Hard wearing, twills are more costly because the compact weave takes up more threads; there are more picks (threads) of filling per inch which takes longer to weave. Hence, both raw materials and production costs exceed that of plain weave.

Haskell also produced satins. Figure 3.19 shows examples of cream and colored heavy duchesse satins, which may be Haskell. In this fabric, satin, the fillings cross the warps at widely spaced intervals so the strands of warp "float" with fewer interruptions leaving a final smooth, lustrous surface composed of closely packed vertical floats, which are clearly illustrated in the enlarged photograph in Figure 3.19. It is possible to weave a very basic satin on the four harness, two box looms used for all the other fabrics described. It is unlikely, but perhaps the first Haskell satins (ca. 1885) were made on the same looms as the grosgrains. However satin of any quality (and quality was the Haskell hallmark) requires, at minimum, five harnesses and some variants use more than twelve. Evidently at least eight harnesses were in operation in Westbrook by 1890, the year the company first advertised *peau de soie*, an 8 harness satin, and *satin duchesse* (dense fine quality twill backed satin). From this date for at least the next 20 years satins made up a major proportion of Haskell production. Output included elegant soft satin variations such as *peau de cygnes*, *peau de soie* and *messalines*, each made in at least two different qualities.⁵² Because *messaline* was offered in "various widths" in 1906, it appears that new, wider (at least 36 inch) looms were added to existing stock when the brick mill was

set up or soon thereafter. Eventually throughout the industry, as silk manufacture reached massive levels, the pressures of automation and cost containment made 5 harness satins the norm.

Of extant examples associated with Haskell, one piece of satin is a natural cream color suited for late 19th-century wedding and evening dresses--often stiff enough to stand up by themselves. (Fig. 3.19) The other satins, failles and the grosgrain examples linked to Haskell are all solid black, probably woven like the duchesse satin and then piece dyed. Although Haskell specialised in blacks, the 1894 American Silk Journal article about Haskell pure dye silks cited in Chapter II, mentions the production of colored fabrics. The colored satins in Figure 3.19 possibly represent one category of Haskell colored silks. A note, inserted in the Haskell stock book evidences that colors were still included in the product line in 1905. The slip of paper records missing (stolen?) bolts of fabric:

Note: Missing pieces July 1, 1905	
Colored FF [faille francaise]	Colored Cygne [peau de cygne]
56 yards	27 yards ⁵³

Entries in the 1889-1907 stock book or Journal of Sales give the fabric name, quality, and yards in the piece but not the color.

Aniline dyes were in use in the late 19th century. Nevertheless logwood was still the most commonly used dye ingredient for black silk (and other fibers) in the 1920s. "The rich full black with deep blue overtone, which results from use of this recognized staple (dye) seems to defy any chemical substitution."⁵⁴ Haskell invoices dating from the early 1880s show purchases of logwood chips from Boston's Howe and Goodwin. There are no later records. However,

instead of handling chips, Theodore Bachofen, the Swiss dye expert who joined the company early in the 1900s, most likely employed the newly available, and more convenient, concentrated logwood extract (sold as a "hematine liquor" or a paste) developed by importers.⁵⁵

The Saccarappa silks exemplify the best of affordably priced, U.S. moderate quality plain silks brought to perfection by modern automated machine production. Developments in another category of goods, figured silks, signify a different set of mechanical advances. By 1900 adaptations of various devices to control pattern making on high speed looms facilitated large scale economic manufacture of a variety of simple woven figured patterns. Different from full scale, multi-colored labor intensive Jacquard fabrics, there were now modest clip spot and swivel loom "embroidered" effects, dobby loom small geometric designs and the curved and angle patterns of very small Jacquards. Notably in each of the three examples shown here the small figure utilizes only one color of thread and none of the fabrics incorporates a total of more than three colors. (Fig. 3.20) Modest designs of this sort--quickly and economically accommodated by loom attachments and equally quickly changed--reflect the compromise such expediency demands. They possibly fall into the class of bulk made silk fabrics, from early this century, criticized by some for their "monotonous simplicity and uniformity . . . regrettable from the artistic point of view."⁵⁶ Whether the same complaints were aimed at more convoluted brocade and damask Jacquards (Fig. 3.21) is an open question. Nonetheless all of the figured examples illustrated are models of the types of patterned fabrics turned

out in a situation where economies of production dictate that machines dominate the process and hand labor is kept to a minimum.

Where the high output of good medium quality staple materials and the greater availability of unpretentious figured fabrics demonstrate positive aspects of automated production, masses of inferior, often heavily weighted, silks show the reverse. Overweighted silks deteriorate quickly and even shred and fall apart within a few wearings. In the early 1890s poor overloaded foreign silks flooded the U.S. market, often represented as American-made, and, to judge from the American Silk Journal response, possibly part of a deliberate effort to destabilize the still young U.S. industry. This situation prompted the comparative chemical analysis of foreign and domestic silks in which Haskell fabrics performed so well.⁵⁷ (see Chapter II) Nevertheless in the late 1890s and early 1900s when demand was high but automated production not yet in full swing, in the effort to produce large quantities of cheap silk some U.S. manufacturers also resorted to heavy weighting to eke out the silk used and thus keep the fabric price down. (See consumer response in Chapter IV)

The market for inexpensive silks continued to expand. This consumer appetite for low priced silky fabrics did not pass unobserved by the cotton industry which began to produce its own version of inexpensive "silk" cloth. This signalled the start of domestic competition in the low end market. The rival material (made in plains, surahs and foulards) was constructed from a cotton warp and a silk filling. Unlike cheap weighted silks this cloth did not disintegrate. Known as mixes, these fabrics were quickly accepted for their good value and pleasant "hand" (feel). Something of the quality and look of

mixes is provided by the pink check sample. (Fig. 3.22) Although this is a novelty weave, the plain areas are sufficient to show the way a silk filling glints and creates a smooth lustrous surface. The dull single spun cotton warp is easily visible in places where it moves over the thick black horizontal rib. Likewise the white single silk filling shows distinctly where it shines across the vertical black rib in this cloth, which has the appearance of a 1920s wash silk. Despite its different colored warp and filling, this material is not made from dyed yarns. It is certainly an economically piece dyed fabric--one that demonstrates the way mixes afforded yet another means of creating inexpensive variation. Woven in the greige (white), this example was cross-dyed--the dye-stuff colored the cotton warp pink but had no affinity for the silk, which remained white. Thus thousands of yards of this fabric might be marketed in several colors with no extra work other than dyeing the pieces differently.

In Europe in earlier times silk was used in various ways with other fibers to make an assortment of different fabrics. The range included garment, drapery and upholstery fabrics and these goods served the (then small in number) middle and upper classes. Compared with industrially manufactured U.S. mixes those fabrics constituted a very different article and the quantities manufactured were very modest. Other silk mixes were widely produced by British handloom weavers from the 1820s through the 1850s.⁵⁸

The production of modern mixes was much less complex than full scale all silk textile production. Some fabrics were made with silk warps, but most dress silks had a cotton warp and silk filling. Manufacture involved no more than the purchase of supplies of inexpensive silk (usually singles) wound on quills, ready

to weave through a cotton warp. With careful dyeing and finishing the resultant goods "neither look cottony, nor, except in a minor degree, do they feel cottony."⁵⁹ Although in general mixes constituted no more than an occasional part of a cotton mill's output, from the turn of the century, prodigious amounts were produced by numbers of New England's major cotton mills.⁶⁰ Cotton looms were much faster than those employed in silk production so even a short run easily produced substantial quantities. In an industry where overproduction was always rife, mixes stepped up the low end competition to the point where manufacturers of inferior silks were forced to upgrade because:

The goods (mixes). . . are sound, honest merchandise, with excellent appearance, and relatively very low in price, and so far as durability and wearing qualities are concerned they are infinitely superior to the over-weighted trash that they have displaced. As one of the most prominent market handlers of these cotton mill products stated in substance to the writer, "The low end of the silk manufacturing business is gone from the regular silk mills forever, and the sooner they awaken up the fact the better for them."⁶¹

By 1914 mixes largely supplanted low grade silks and thereby impacted on the industry in general as U.S. silk manufacture consolidated in the mid-quality range.

Distinct from the above dress goods, different categories of mix achieved established niches in their own right. There were upholstery fabrics and, for outerwear, materials with a silk warp and wool filling. Some of the best known were often listed in Sears ready to wear pages--Gloria, Henrietta, Landsdowne and bombazine cloth. By the 1920s few fabrics were manufactured with both warp and filling of silk.⁶² In Maine, not far from Haskell, the Richmond Sagadahoc Company manufactured mixes, but listed them as broad silks.⁶³

Likewise, by 1927, both the Hill Manufacturing Company of Lewiston and the Cabot Mill of Brunswick produced silk and rayon mixed goods.⁶⁴ Haskell manufactured rayon by the late '20s although trade listings still describe their product as "plain and fancy dress silks and satins."⁶⁵

American silks of the 1920s differed from those of the 1880s. The transition is recorded within the actual fabrics. A microscopic analysis of thread content would mark the evolution from thin Chinese and European filaments to the predominant use of thicker Japanese, and that these filaments gradually increased in size, doubling between 1914 and 1920.⁶⁶ Further examination would show fabrics constructed from the coarser threads made from the thicker filaments. This all suggests changes in silk worm breeding, trade patterns and transport routes. The increase in cloth width from 19, 24, 36, 40, 48 to 54 inches and wider and the expansion of piece length (as cut from the loom) from 50 to an average of 100 or more yards testify to developments in the mechanics of production and denote reductions in labor requirements. Fabric found to be piece dyed and woven from heavier threads articulate aspects of standardization and a later date than samples that are yarn dyed and exhibit an array of thinner thread sizes. A predominance of natural dye among the latter group and chemical dye in the former further differentiates the two. Cross dyed plain, serviceable silk textiles are likely to prove to be a mix of silk and cotton or silk and rayon and thereby point to their more recent production, the existence of a market for very inexpensive silky fabrics and the inroads of rayon.

Sturdy 1920s silks filtered to all parts of the U.S. As products of modern industry they are not rooted in one region like earlier artisanal objects or

architectural styles, so it is impossible to trace place of origin from the artifact alone. (The task is formidable even with recourse to written records.) Of course the sheer abundance and geographic spread of these silk goods tells a story of large scale manufacture and distribution. For the average consumer early U.S. silk dress fabrics were special buys. However the volume of broad silk production was not so high in the 1880s-1890s as later and the fabrics were well used and reused--unless preserved for a specific reason. The 1920s silks were less "special," more wash-and-wear and everyday, and these modern fabrics were not as substantial or long lasting as those from earlier times, so despite the enormous quantities manufactured, relatively few examples of ordinary silk fabrics remain. Like everyday garments from any era, average 1920s silk garments, seemed less "collectable" and less museum worthy. There is a probability that although a lesser amount of the early silks were made, because the cloth was substantial and the garment styles more elaborate, a disproportionate number of examples are preserved in museums relative to the newer, more standardized, less hard wearing silks of the 1920s. Therefore it seems that a study confined to the fabrics by themselves is likely to arrive at distorted conclusions. However, regardless of the accuracy or inaccuracy of proportional representation, the applied ornamentation of fringes, passementeries, tassels and other narrow goods found embellishing articles made from the first broad silks reflect, correctly, that a very substantial percentage of silk threads manufactured during that time were put to use in products other than yardage.

Just as standardized 20th-century U.S. silks are different from their 19th-century antecedents, they are also distinct from silk textiles of foreign manufacture. Again, a microscopic examination would show distinguishing characteristics, notably threads thinner than those typically used in American goods because the forces (mechanization and expensive labor) that propelled U.S. industrial manufacture towards more substantial threads were absent in the realms of European hand and mechanized production. The mechanized looms employed in Europe were designed to operate in an environment where labor costs were less of a factor. These looms were slower, put less stress on the silk and accommodated stoppages to correct problems. Skilled workers, at every stage of production, rectified irregularities to turn out fine quality silk goods from threads U.S. manufacturers "declared to have the fault of being too thin and too uneven."⁶⁷

Inexpensive, soft, light-weight habutae (known as "Jap silk") was made from unthrown silk singles. Europeans manufactured choice plain, Jacquard and printed fabrics from fine low denier threads. Because threads consisting of many thin filaments are more pliant than those of the same size made from fewer thicker filaments, the former weaves up into fabric with an inherent suppleness unobtainable in cloth made from the stouter threads required by automated machines. Furthermore in the hand weaving process it is possible to densely beat fine fillings to produce very compact, superior textile. Output of this high caliber of goods and of elegant, fashion forward, prints and complex colored Jacquards was inevitably limited by the constraints of hand labor. Thus these

fabrics constituted an exclusive category of silk material completely distinct from coarser U.S. high volume machine produced silk staples.

Not all foreign made silk cloths were high grade. As discussed earlier, in the effort to reduce costs and produce less expensive silks--whether for local markets or to penetrate the tariff bound U.S. market--European manufacturers often resorted to excessive weighting to eke out the silk content and make loosely woven material seem more substantial. Where these adulterated fabrics performed poorly compared with American pure dyed goods, that weakness was often mitigated by the cache of European style. Some fashion conscious consumers who could afford these imports enjoyed them briefly and moved on to the next new fad.

By the late 1920s U.S. industrially made silk staples comprised very few fabrics made with both warp and filling of silk, and an increasing number were made from a hundred percent rayon. The last fabrics made by the Haskell Company were rayons. A bolt of plain weave "greige" or unfinished rayon is the only extant cloth specifically identified as Haskell. Very different from the regal duchesse satin and elegant peau de cygnes produced in the past, this cruder material speaks of the company's transition from silk to rayon manufacturer. It seems most likely that latterly Haskell undertook commission weaving (see Chapter II) and that this fabric was made for a converter during the company's last days. Unattractive in its greige state, it still awaits the transformation wrought by coloring and finishing. Where previously finishing processes fell under the aegis of the manufacturer, by 1930 outside interests

frequently took over those final stages, converting the fabric--rayon, mix or silk--into something appealing and marketable.

The silk fabrics examined in this chapter provide an overview of medium quality U.S. silk goods. These textiles speak of the strengths and weaknesses of industrially made silk materials. On the one hand they show that mechanized manufacture produces attractive marketable fabrics, and on the other they illustrate some of the inevitable design compromises that result from mechanization. Even with these compromises, the rib weaves, stripes, plaids, shot and dobby fabrics are examples of modest, easily achieved variations, economically manufactured and popular with consumers.

The special nature of U.S. silks was governed by machines that required sturdy threads. This point highlights one of the advantages of "artificial silk," or rayon as it became known: the strength and thickness of the rayon filament was easily adjusted to suit machine weaving. Whether manufacturers adapted to rayon, or continued to work with silk, updated looms were required to operate economically and produce the new generation of desirable silk and silk-like fabrics. Where twenty years previously Haskell's attractive high caliber pure dye silks represented all that was positive about machine made silks, the bolt of rayon greige cloth indicates that by the late 1920s the company was no longer able to manufacture what consumers wanted.

NOTES

- 1 Inspection of the quilt suggests that the surah, changeable stripes and satin scraps are the pieces most likely to be actually from the Haskell mill. The quilt is now owned by Edwin Haskell's wife's cousin, Mrs. Eleanor Conant Saunders, who recalls a former mill worker, in 1960, claiming that every piece in the quilt was Haskell. The quilt was made by Mabel Babb Weymouth and her daughter Alice who both worked in the Haskell Mill. (Conversation with Mrs Eleanor Conant Saunders, October 23, 1995.) Among a selection of black fabrics owned by Mr. Peter Haskell, a roll of 21 inch wide black faille, is the example that seems the most certain to be from the mill. (Visit to private collection and conversation with Mr. Haskell, March 31, 1996). The costume collection at Maine Historical Society includes a variety of middle-class garments made from modest silks and also a group of ribbon swatches from a collection assembled by a Lyon trained silk expert in the course of his career in American mills. (Conversations with Rosalind Strong the expert's daughter, November 1996.)
- 2 Irene Emery, The Primary Structures of Fabrics (Washington, D.C.: Watson Guptill Publications and Whitney Library of Design, The Textile Museum, 1995 ed.), 12.
- 3 Ibid.
- 4 Raw silk skein sizes varied in the early days of the industry before the development of large filatures, standardization and methods of quality control.
- 5 Chittick, 68-69, cites an example to illustrate the expense of throwing organzine. If a thread is twisted at 16 twists per inch and then doubled and twisted again at 14 twists per inch, that makes 27 twists per inch in the finished thread-- $16 + \frac{1}{2} 14 = 27$ --which translates into a great use of power.
- 6 Wyckoff, Silk Goods, 21.
- 7 Brockett, advertisements, xvii. Later Cutter also branched out into weaving. Also note that Gerhardt's, Haskell's loom fixer, had weaving experience at Cutter.
- 8 Invoices for January 5 and March 25, 1881, include logwood, fustic, cutch, cudbear, querquictron, camwood, assorted dye chemicals and scarlet 3R which is a red aniline dye and much more expensive than any of the natural dyes. At the bottom left corner on each invoice there is a note: "ship via Portland Boat." Invoices, Haskell Silk Co., HBS.
- 9 Wyckoff, Silk Goods, 18, outlines the other standard employed at this time. Known as "13 oz," it referred to silk in which the replacement dye was no more than 1 ounce per pound.
- 10 Ibid.
- 11 Ibid.
- 12 See discussion of natural dyes still in use industrially through the 1920s and even up to World War II. Rita J. Adrosko, Natural Dyes and Home Dyeing (New York: Dover Publications, 1971), 26, 33.
- 13 Brockett, xix, an advertisement by Brainerd, Armstrong and Company, "Best In the World" silk twist shows their huge wooden twist cabinet. It is divided into two: 50 yard reels on one side and 100 yard reels on the other. It is 15 drawers high and each drawer holds 10 reels across and the whole cabinet appears at least that amount deep; An extravagant revolving display case for "Merricks Six Cord Soft Spool Cotton"

thread is cited by Thomas J. Schlereth, Victorian America. Transformation of Everyday Life 1876-1915 (New York: Harper Collins, 1991), 143.

14 Invoice for 51 dozen spool silk. March 2, 1880-1881. Woodman, True and Co., 137-141 Middle & 55 Pearl Street, Portland. Invoices, Haskell Silk Co., HBS

15 Wyckoff, Silk Goods, 16, states that by 1880 only merchant tailors or other hand stitchers still used skein sewing thread.

16 See detailed illustration showing this machine and how it works, Brockett, advertisement section, xxx.

17 Wyckoff, Silk Goods, 17, cites corset, garment and shoemaker's preference for large spools and also explains that pure undyed silk was used for the best footwear.

18 Also recorded in Ledger V-B-1, 1874-1882, Haskell Silk Co., HBS

19 Allen, 5,6.

20 Ibid., 25.

21 Ibid.

22 Fringe has always been available to the wealthy. In the National Gallery, London, the 1856 portrait Madame Moitessier by J.A.D. Ingres shows the bodice lavishly trimmed with a multicolored hand-knotted fringe.

23 Ibid., 47.

24 Ribbon designs changed each season. It was not lasting qualities but up-to-date color and design that were most important. In 1918 the basic range carried in a ribbon department included: 6 staple weaves-each in a range of widths from narrowest to widest; 100 different colors; 25-50 fancy weaves; wash ribbon and several dozen seasonal novelty ribbons. The stock added up to a major outlay and a bad ribbon year had a significant impact on a department store's earnings. Eliza B. Thompson, The Silk Department (New York: The Ronald Press Company, 1918), 150-153.

25 Brockett, 100.

26 Fourth Annual Report Silk Association of America in Brockett, 176.

27 Chittick, 83, gives the price (ca. 1910) of printing design on a warp or on a plain woven fabric as about the same. In the same way that designs were printed on woven cloth, designs were printed first on the warp before weaving. The advantage was that the design was woven into the fabric and was equally clear on the face and back. In this process as weaving progresses warps slip out of exact alignment and as a result these designs are characteristically blurry edged.

28 Thompson, 123.

29 Wyckoff, Silk Goods, 45.

30 Ibid., 45.

- 31 Most of the textiles examined in this study were sewn into finished articles. For this reason it was not possible to examine the back of the fabrics, unravel cloth to analyze weave and thread structure and ascertain the direction of the warp. Nor was it possible to perform laboratory tests. Consequently any fabric "reading" is the product of observation, deduction and speculation; Wyckoff, Silk Goods, 30, refers to the manufacture of broadsilks.
- 32 Dress of gray and cream stripes with plain gray panels. ECS.
- 33 In the right circumstances expert hand weavers produce perfect plain cloth, but in lesser quantities.
- 34 Wyckoff, Silk Goods, 43.
- 35 Luther Hooper, Silk. Its Production and Manufacture (London: Sir Isaac Pitman & Sons, Ltd., n.d.), 118.
- 36 Red Ring Binder, 7, WML; Agent Accounts, Haskell Silk Co., HBS, 560, 595.
- 37 Agent Accounts, The Haskell Silk Co., HBS.
- 38 Ibid.
- 39 Wyckoff, Silk Goods, 28.
- 40 Ibid.
- 41 The sprigged woven designs fashionable in the late '70s and early '80s went out of style and taffetas, failles and grosgrains became popular for the heavy draped bustle fashions of the '80s.
- 42 Agent Accounts, Haskell Silk Co., HBS, 539.
- 43 ASJ (November 1882), 188. To create a moire finish a grosgrain is passed between heavy rollers which are designed to flatten parts of the ridges. The flattened areas reflect light differently and this makes the "watered" look.
- 44 Westbrook Businessmen and Businesses 1900-1910. Red Ring Binder, 7. WML.
- 45 Haskell Silk Company, Journal of Sales 1889-1907, MATH.
- 46 Ibid.
- 47 Plain fabrics for surface printing formed another class of textile.
- 48 Fabric woven with one color has one shuttle moving from a box at one side of the loom to box at the other. Three boxes--2 x 1--accommodate two colors or two different types of thread. With eight boxes (4 x 4) stripes of seven colors are possible.
- 49 Mrs. Eleanor Conant Saunders' quilt contains many variations of simple light weight stripes and checks signifying the prevalence of such fabrics.

50 From the same source--the Saunders' quilt--other shot twills were orange/brown and pink/black. There are also black and white striped fabrics shot with red or green.

51 A Dictionary of Silk Terms, (New York: Clifford and Lawton, 1915), 7.

52 Ibid., 58; Journal of Sales 1889-1907, Haskell Silk Company, MATH; Messaline was originally an unusual fine soft satin with an organzine filling, made in Lyon. By 1915 messaline was a name for a finish that rendered any fabric extremely soft and supple.

53 Insert in a Haskell stock book or Journal of Sales. MATH.

54 Albert H. Heusser, The Silk Dyeing Industry in the United States (Paterson ,New Jersey: Silk Dyers Association of America, 1927), 534.

55 Ibid.

56 Mason, 127.

57 "A Libel on the American Manufacturer," ASJ (October, 1894), reprint n.p.

58 It is possible that some immigrant workers and entrepreneurs knew about the British mixes and contributed to the late 19th century developments in America. Many Manchester, north of England and Scottish handloom weavers engaged in silk-cotton and silk-linen production from the 1820s through the 1850s. Duncan Bythell, The Handloom Weavers (Cambridge, England: Cambridge University Press, 1969), 257-263.

59 Chittick, 328.

60 Chittick, 326, indicates that cotton mills concentrated on cotton but produced mixes to fill in slack or if the market seemed right. Because cotton looms run so much faster than silk looms cotton mills had the capacity to produce enormous yardage very quickly. Cotton experts were not alert to the peculiarities of silk so problems were not unheard of.

61 Ibid., 332.

62 Matsui, 257.

63 Davison's 1921: Silk Trade. 26th Annual Edition. 132.

64 Davison's Silk Trade Pocket Edition, 1927. 32nd Annual Edition 1927. 144.

65 Ibid., 145.

66 Matsui, 125, cites the doubling of denier size--up to as much as 3 denier--as taking place between 1914 and 1920; Gaddum, 60, also comments on Japanese filaments of 2.8 denier--even coarser than the 2.5 mean (used in machine industrial production).

67 Mason, 17-19.

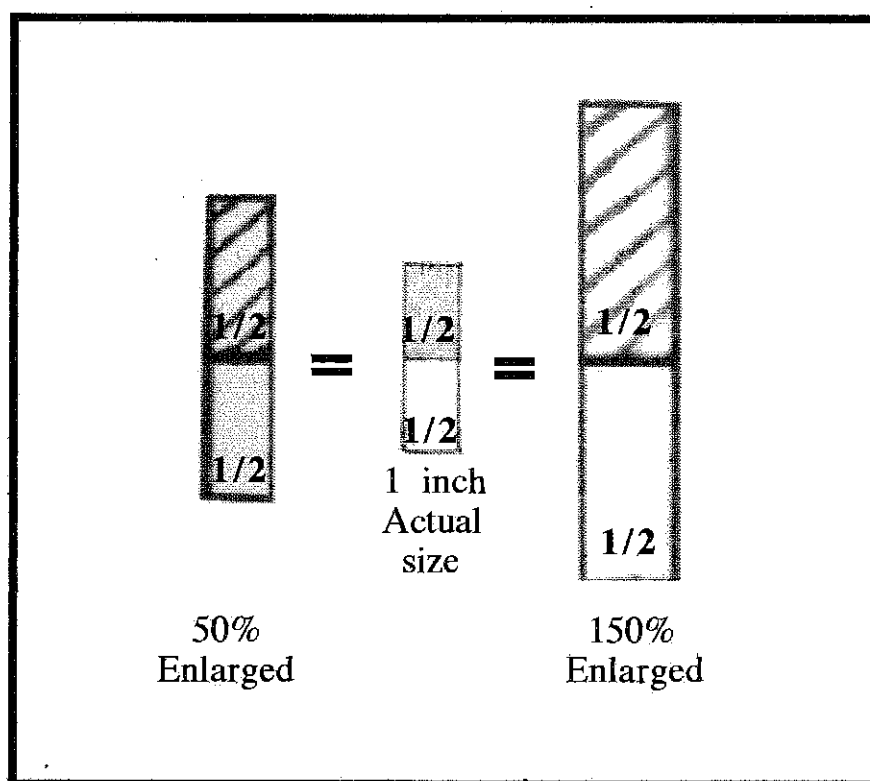


Figure 3.1. Scale of textile photographs.
All textile photographs are enlarged.
Some are enlarged by approximately 50%.
Others are enlarged by approximately 150%.
Each photograph includes a scale.

All textile photographs by the author
courtesy Mrs. Eleanor Conant Saunders
and The Maine Historical Society.

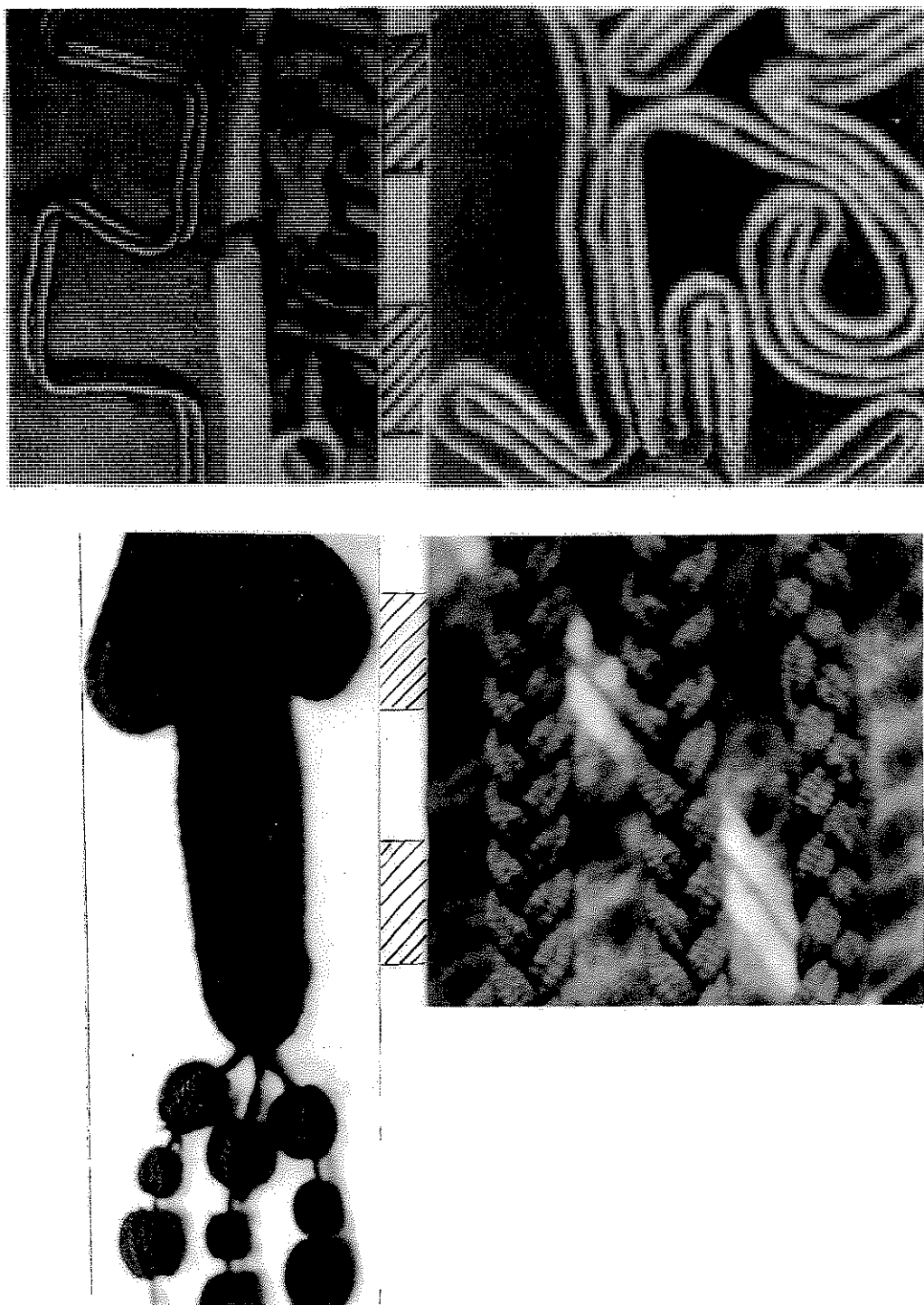


Figure 3.2. Top left, cotton or wool core wrapped with silk to form a cord ca.1860s; top right, passementerie ca. 1910; below left, passementerie ca. 1890s; below right, braided cord ca. 1860s.

Courtesy Maine Historical Society.

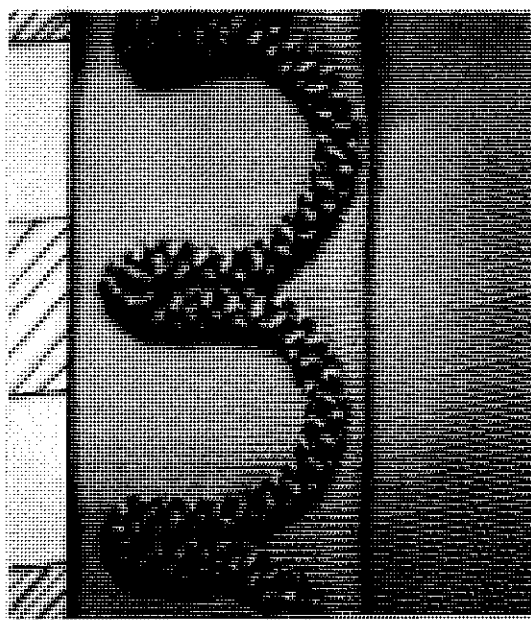


Figure 3.3. Top, rope-like twisted cord, trim on a child's dress. Thinner versions were used to trim the edge of men's jackets and for quilted smoking jackets; below, Jacquard ribbon used as sleeve trimming ca. 1870.

Courtesy Maine Historical Society.

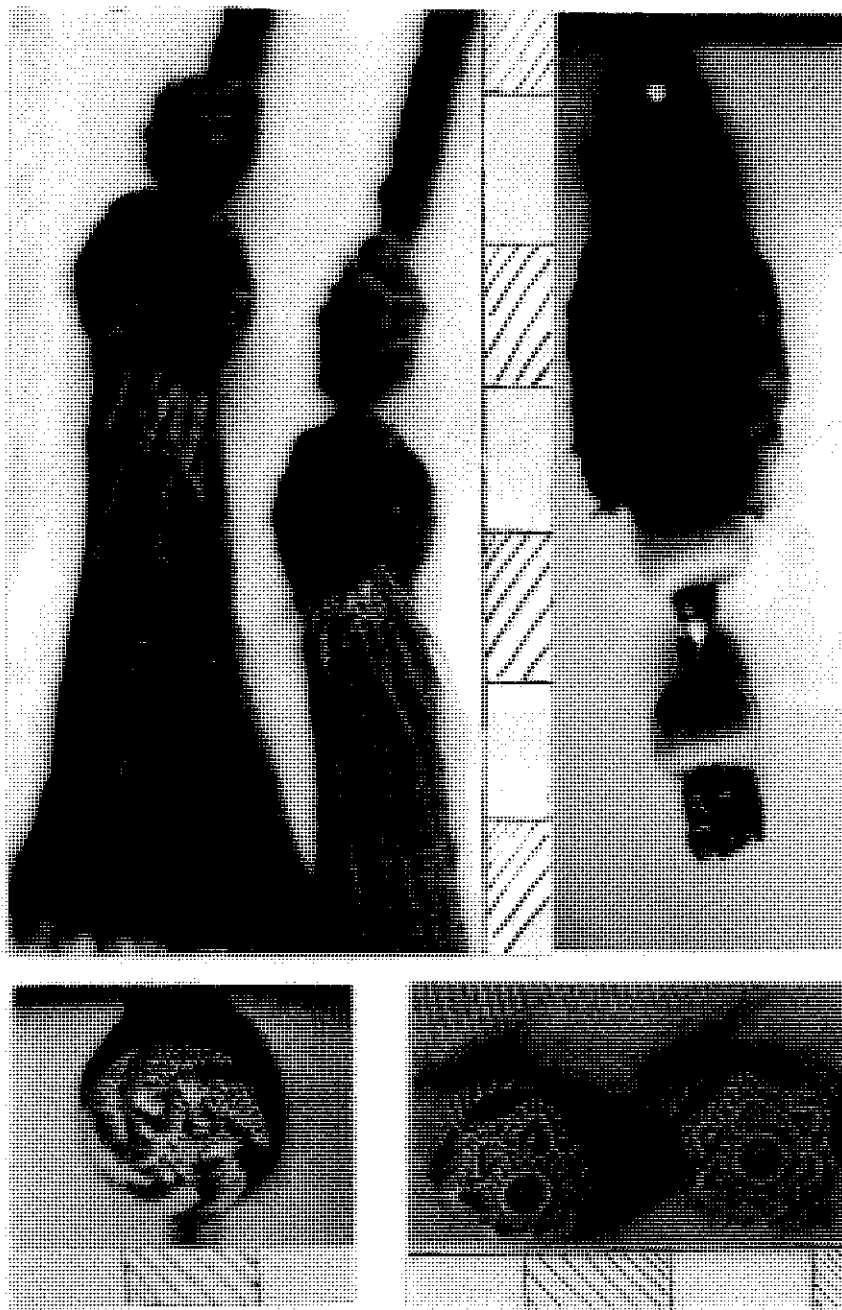


Figure 3.4. Tassels and buttons ca. 1860s-1870s. Top left, 2 inch long tassel threads hang from a pom-pom of twist attached to a 9 inch cord sewn to a dress shoulder; top right, tassel made from silk covered beads, a large twist pom-pom and glass beads, one of many tassels attached to a dress sleeve and overskirt edges; below left, silk embroidered button, note the contrast in texture between the twisted thread and the smooth untwisted floss; below right, silk wrapped button covered with crochet design in silk twist.

Courtesy Maine Historical Society.

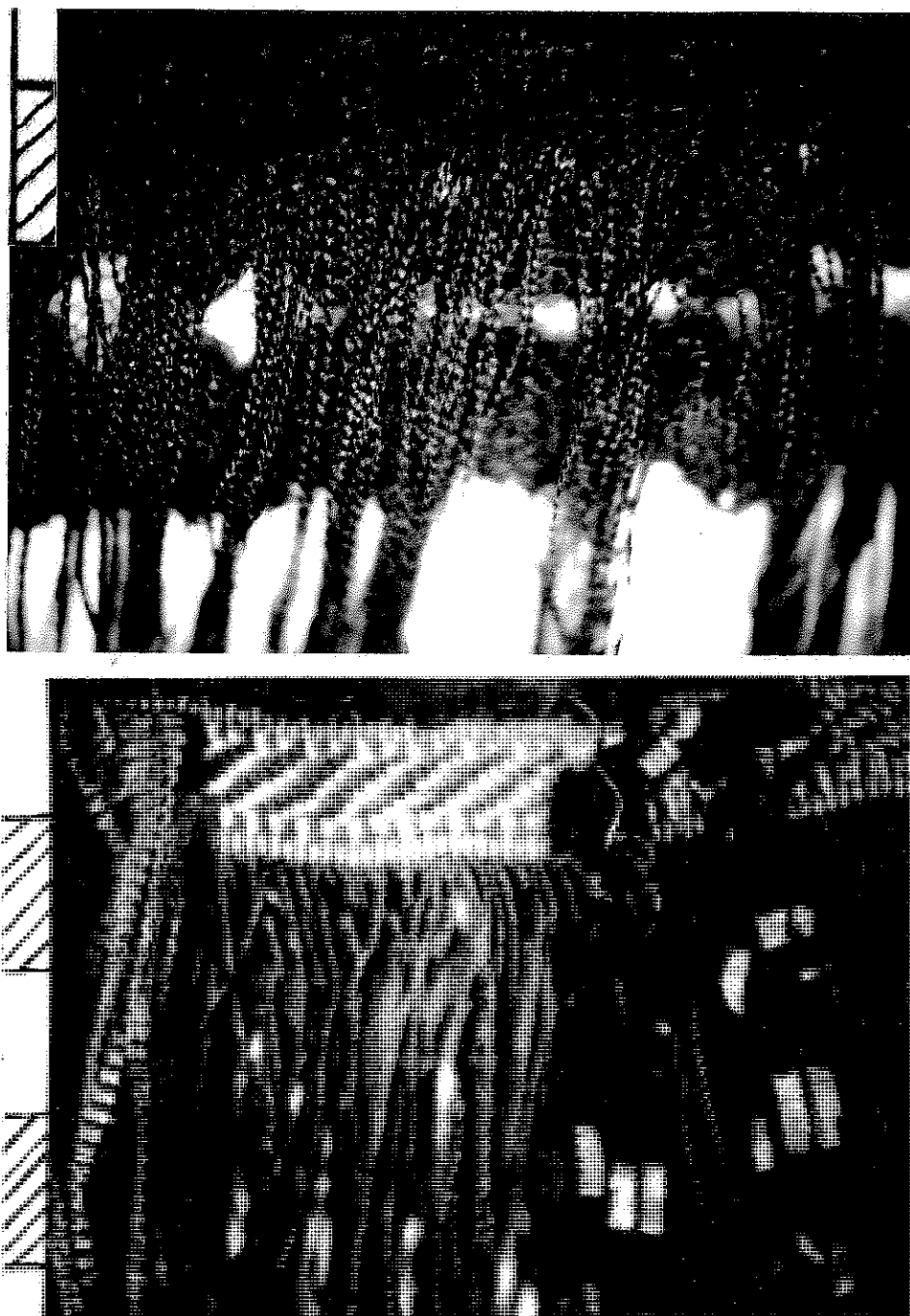


Figure 3.5. Early machine made fringes ca.1860s. Top, black machine fringe of loosely twisted threads and simple heading attached to a black wool cloak; below, brown machine fringe with white twill heading--to the left crimped singles and to the right pink and black chenille threads are stitched at regular intervals to further embellish this fringe.

Courtesy Maine Historical Society.

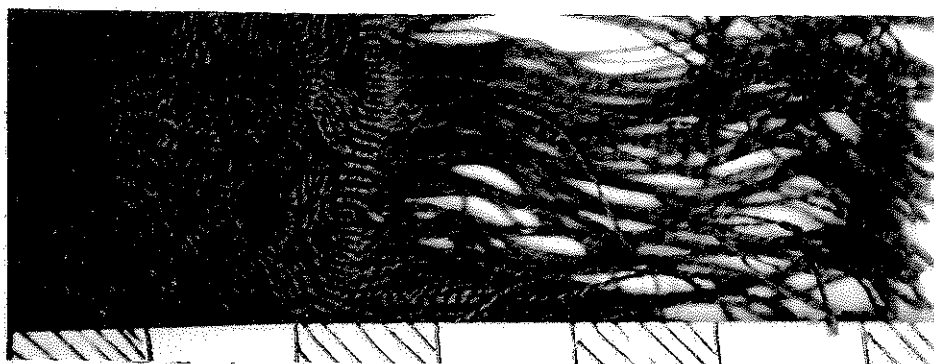
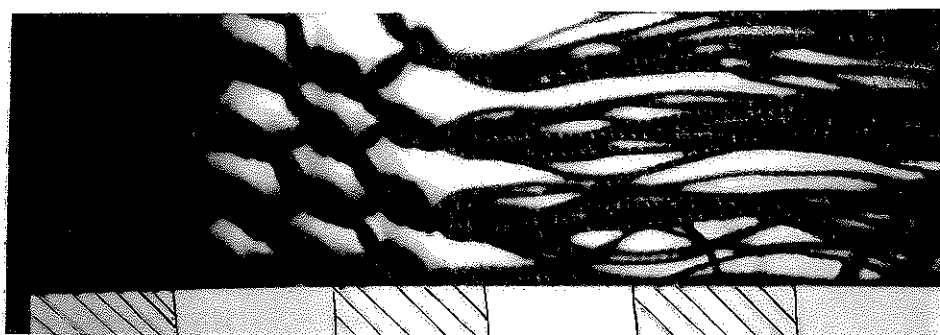


Figure 3.6. Machine made fringes ca. 1860s-1870s. Top, blue hand knotted fringe with a narrow machine made heading; center, black hand knotted fringe with narrow machine made heading; below, gold deep machine heading.

Courtesy Maine Historical Society.



Figure 3.7. Ribbon trim 1870s and 1920s. Top, one of many grosgrain bows ornamenting a plaid tafetta dress worn for commencement, Westbrook College mid-1880s; center, grosgrain ribbon loops on a dress sash, 1920s; below, detail of tafetta and picot edged ribbon flowers, in the center of the ribbon loop sash.

Courtesy Maine Historical Society.

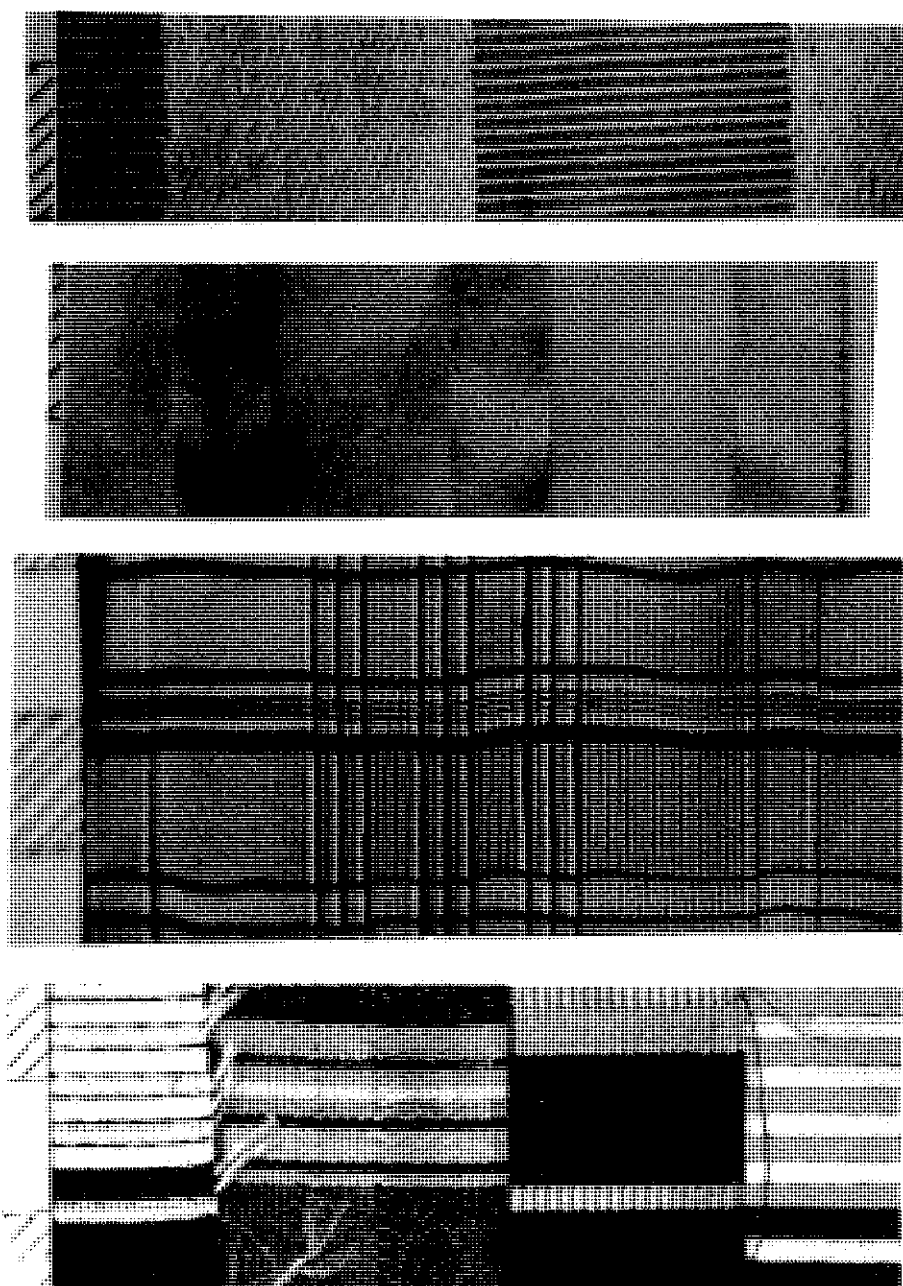


Figure 3.8. Striped and plaid ribbon. Top, 5 inches wide, stiff satin and grosgrain stripes probably for millinery use; top center, 3 1/2 inches wide, pink satin and cream faille stripe ribbon; below center, 3 1/2 inches wide, pink, cream, pale green vertical rib with black horizontal stripes; below, 3 inches wide, variety of ribbons showing colored stripes down the length and woven textured patterns across the width.

Courtesy Maine Historical Society.

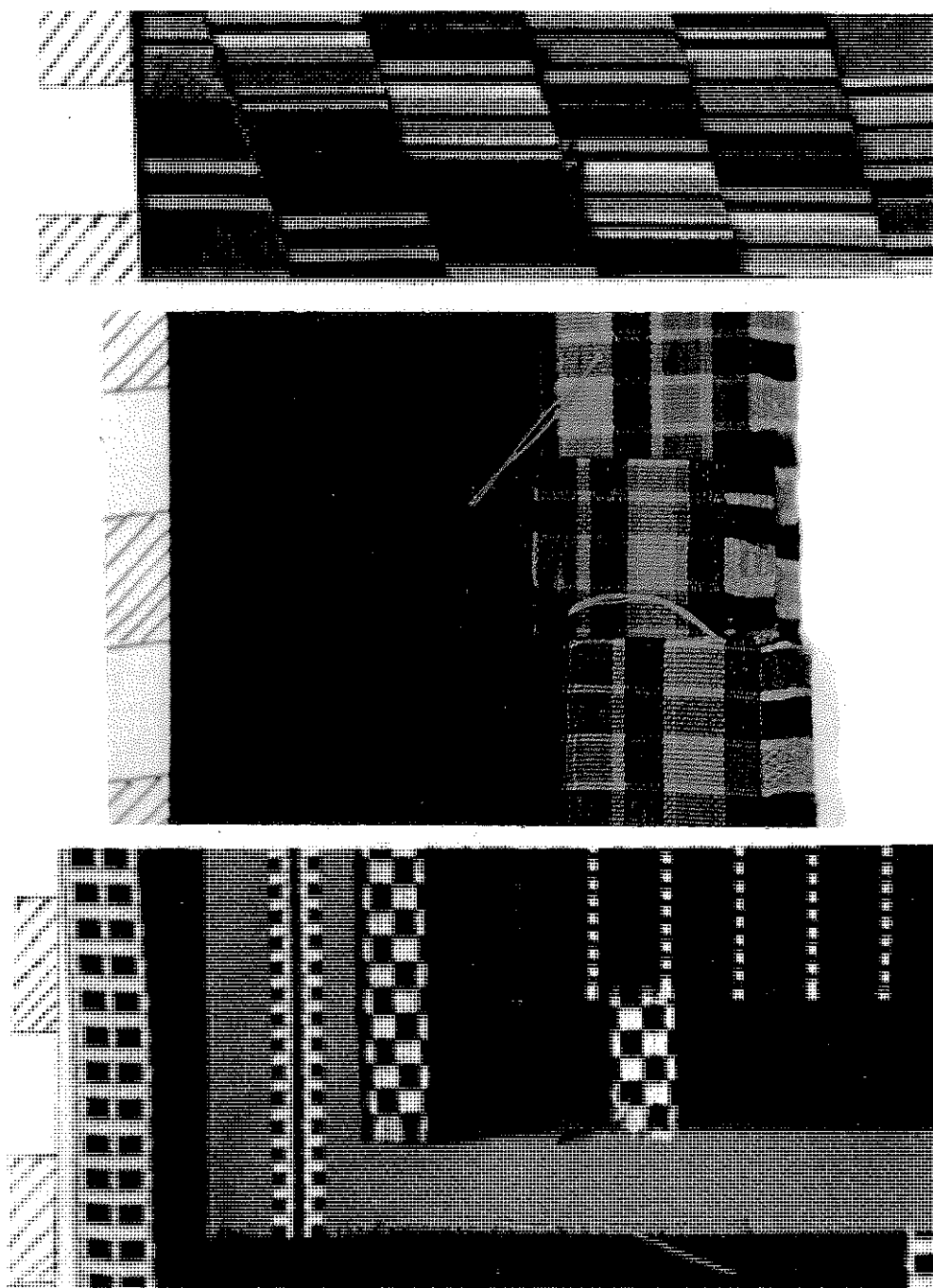


Figure 3.9. Striped and plaid ribbon. Top, 4 1/2 inches wide, multicolored warp striped ribbon, seven colorway variations in the swatch; center, 4 1/2 inches wide, plain tafetta with plaid border both sides--the split edge indicates it was cut after being woven in a broader width; below, 3 1/2 inches wide, tafetta in brilliant hues with black and white woven edging.

Courtesy Maine Historical Society.

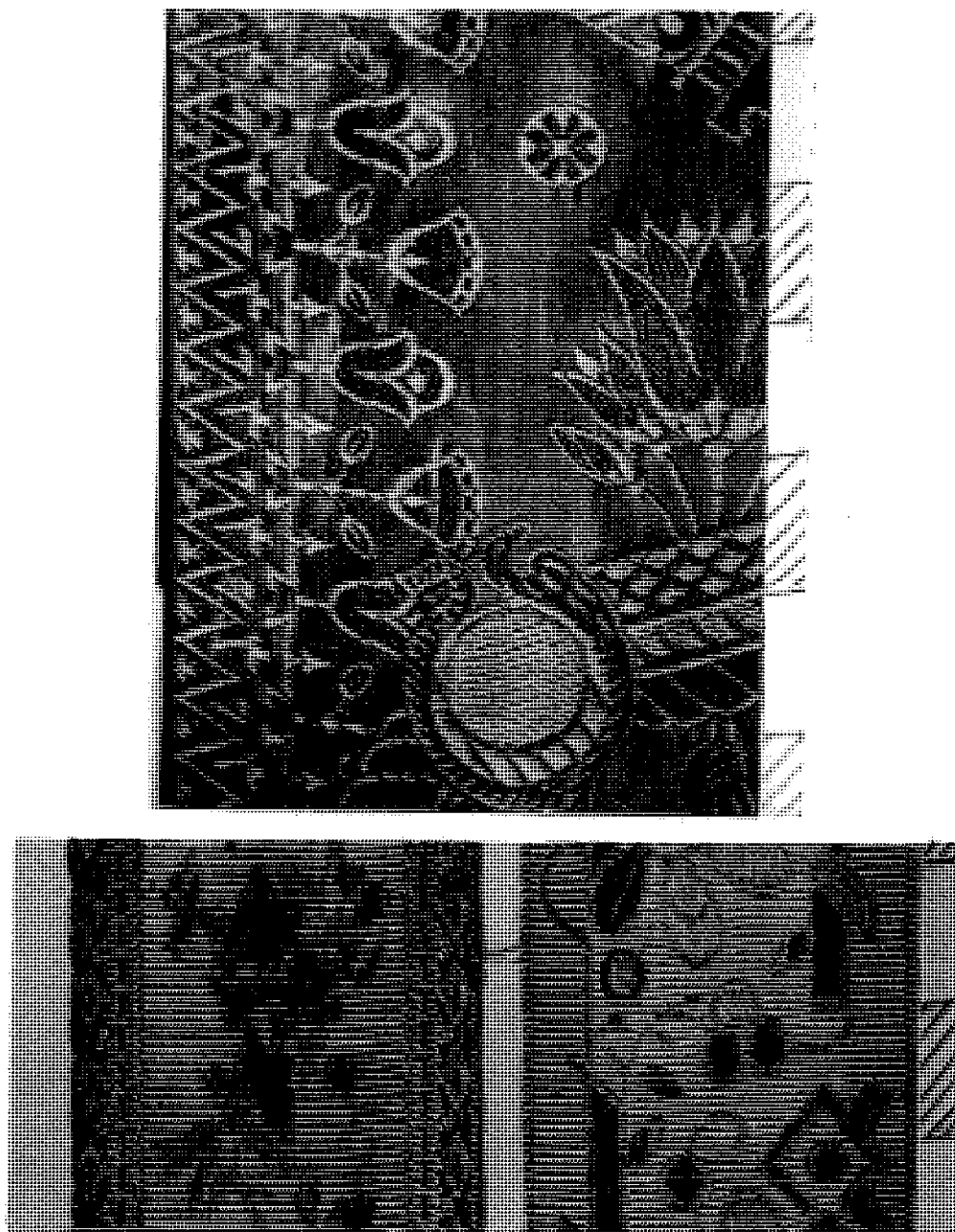


Figure 3.10. Printed warps and Jacquard ribbon. Top, 5 inches wide, (tafetta façonné) printed warp with one color filling Jacquard design of Egyptian motifs, probably ca. 1920; below left, 1 1/2 inches wide Jacquard woven border, floral printed warp grosgrain; below right, 1 1/2 inches wide grosgrain with Jacquard woven design.

Courtesy Maine Historical Society.

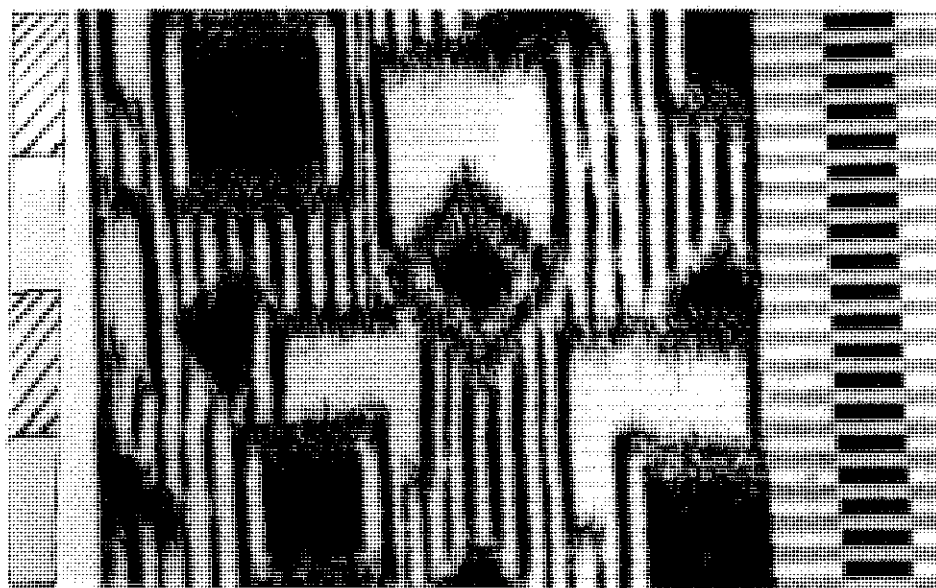
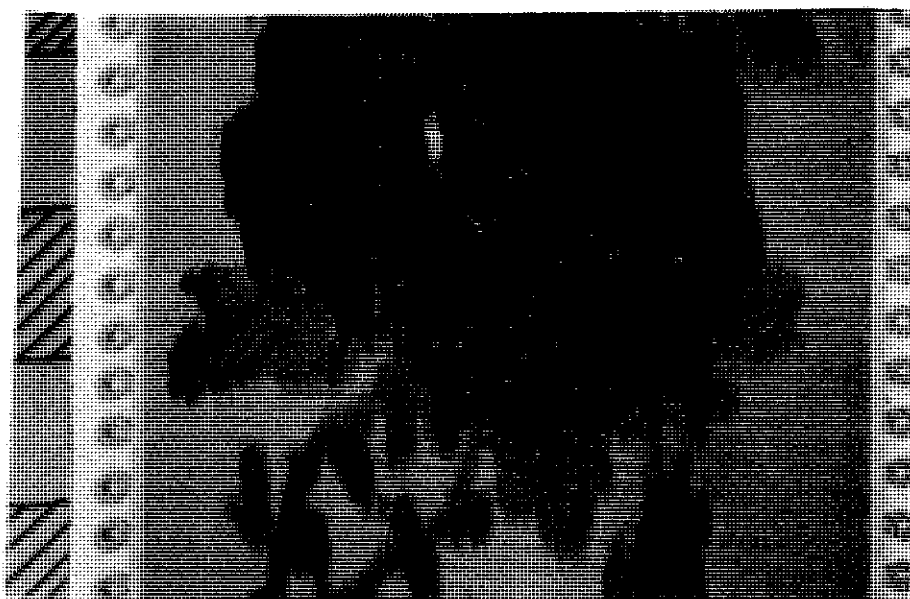


Figure 3.11. Printed warp ribbon combined with other details. Top, 3 inches wide, rose printed tafetta with picot edge; below, detail of a 9 inch wide ribbon with black and white printed design at the sides and woven pattern in the center, possibly ca. 1910

Courtesy Maine Historical Society.

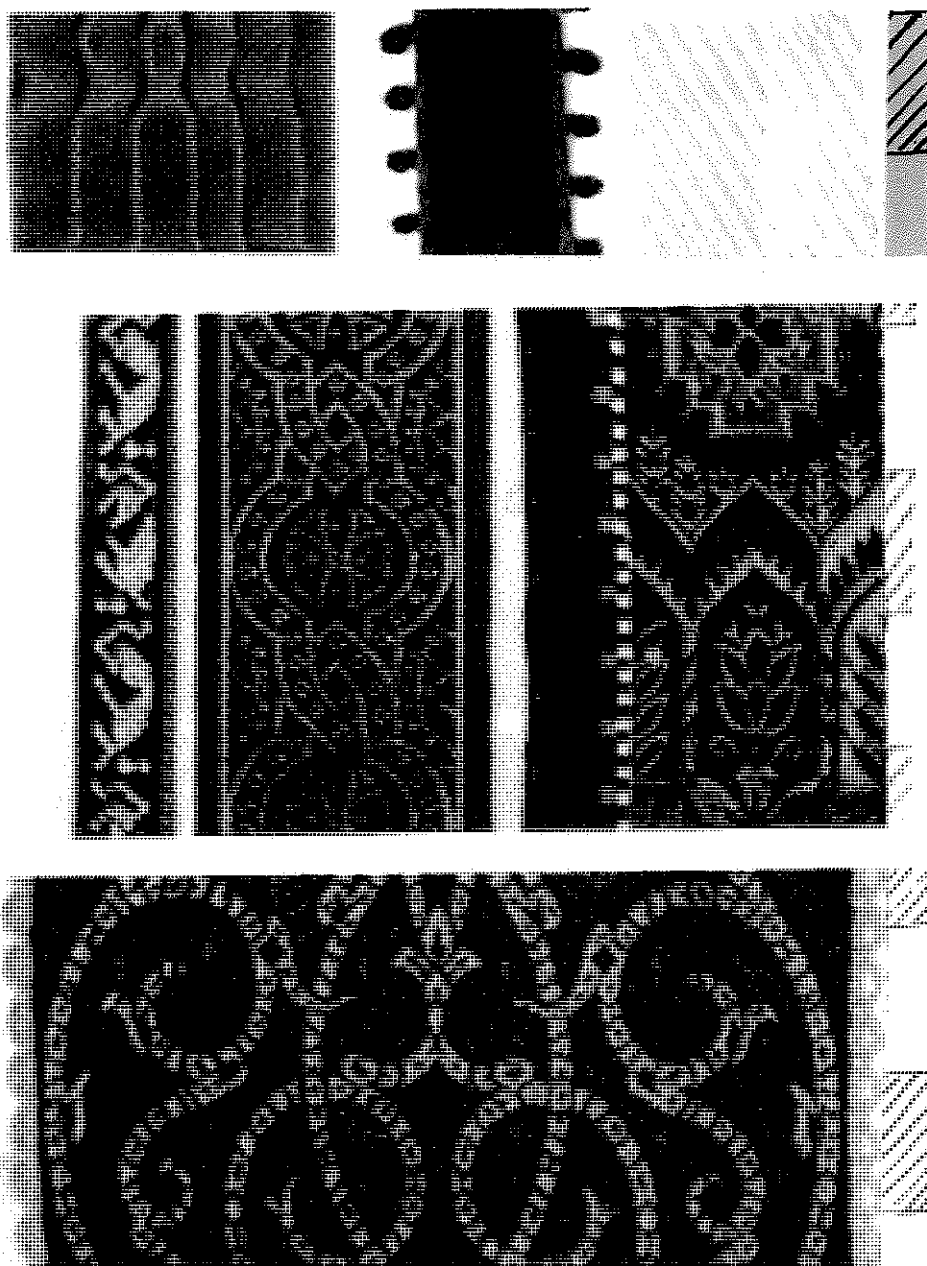


Figure 3.12. Plain and Jacquard ribbon, different widths. Top left, 1 1/2 inch moire or watered ribbon; top center, 1/2 inch with picot edge; top right, 1 inch twill bodice waist-tie ribbon; center left, 1/4 inch jacquard oriental design; center middle, 1 inch wide Jacquard strapwork design; center right, 1 1/4 inches wide, Jacquard oriental design; below, 3 1/2 inch Jacquard scrollwork design with picot edge. Fine detailed ribbons like these were woven with about 400 colored threads to the inch. Depending on the length of the repeat these elaborate designs might require as many as two to three thousand punched Jacquard cards fitted to the loom, ca. 1920s.

Courtesy Maine Historical Society.



Figure 3.13. Dress and fabric detail ca. 1870s. Top, detail of an 1870s swag fronted dress; center, detail of the dress fabrics, approximately 120 warps to the inch and 120 picks; below, enlarged detail of the plain taffeta showing irregular thicknesses in the threads.

Courtesy Mrs. Eleanor Conant Saunders.

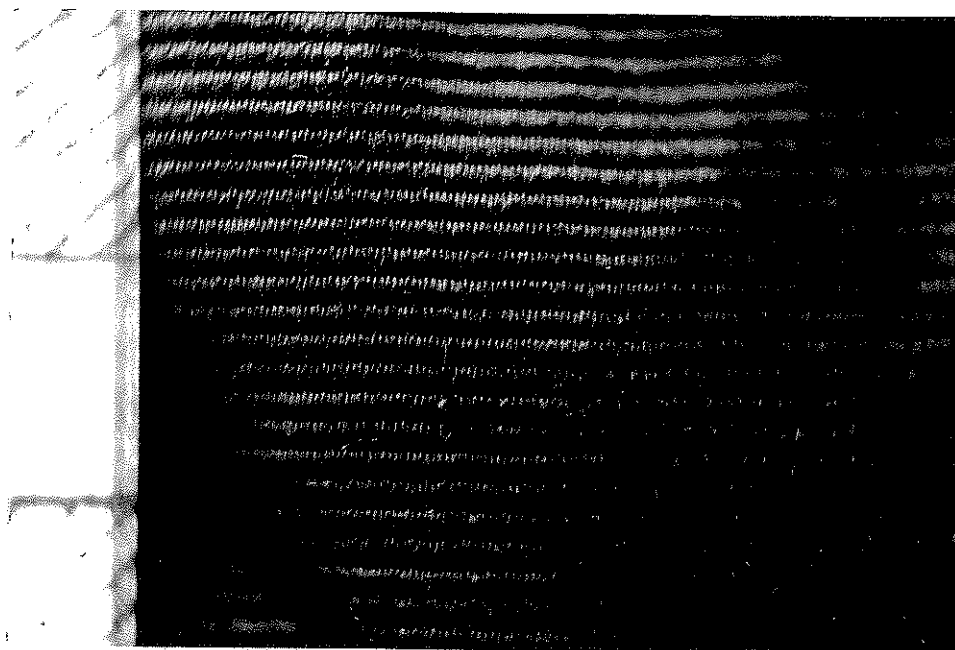


Figure 3.14. Grosgrain. This example is enlarged 150% and clearly shows the close set warps that completely cover the filling, which may be cotton to keep the price down. The count is approximately 84 warps and 20 picks per inch.

Courtesy Mrs. Eleanor Conant Saunders.

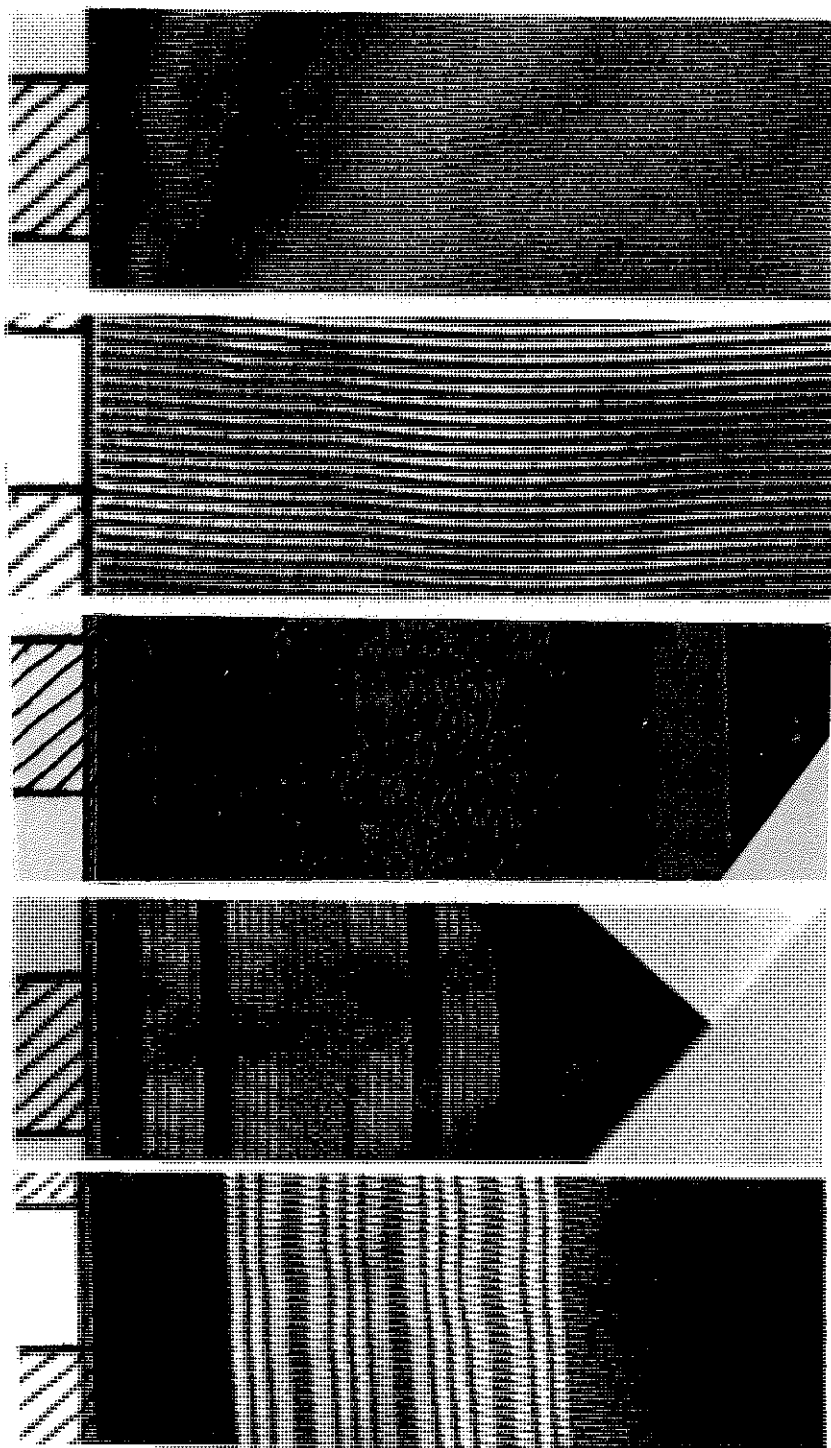


Figure 3.15. Rib weave variations. The variation comes from the number of ribs and the thickness of the ribs. Each rib forms one pick. Top, rib, 40 picks per inch; below the top, rib, 20 picks to the inch; center, warp stripe, 112 picks to the inch; below center, warp stripes, 80 picks per inch; below, warp stripes, 56 picks to the inch.

Courtesy Mrs. Eleanor Conant Saunders.

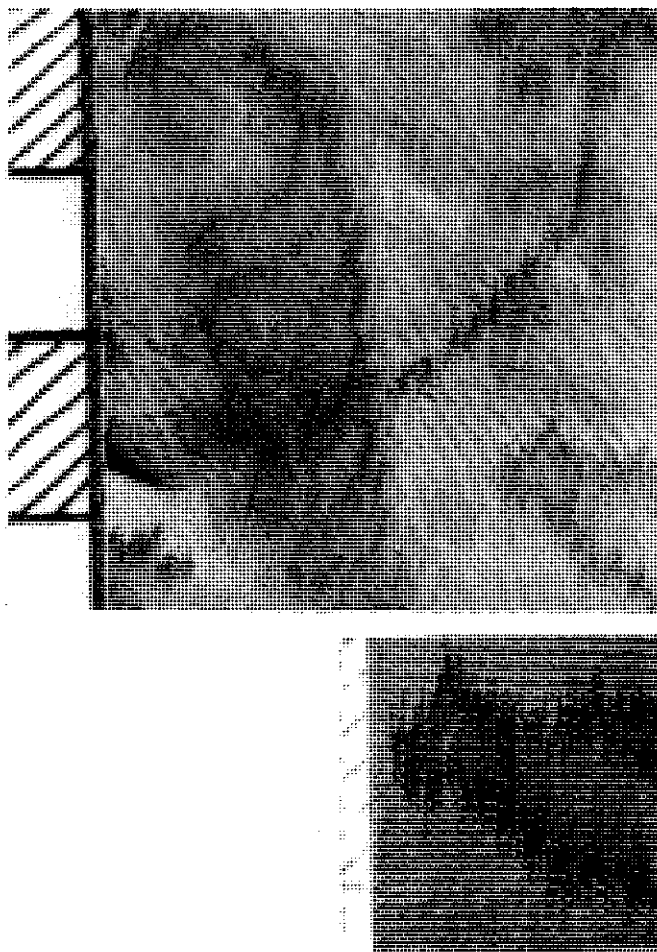


Figure 3.16. Printed warp. This is a rib weave. The warps are set close together so the print shows up to the maximum. The count is approximately 120 warps to 112 picks. The cost of printing warp was about the same as printing finished fabric (ca. 1900). This looks inexpensive as there are only two colors, gold and dark green.

Courtesy Mrs. Eleanor Conant Saunders.

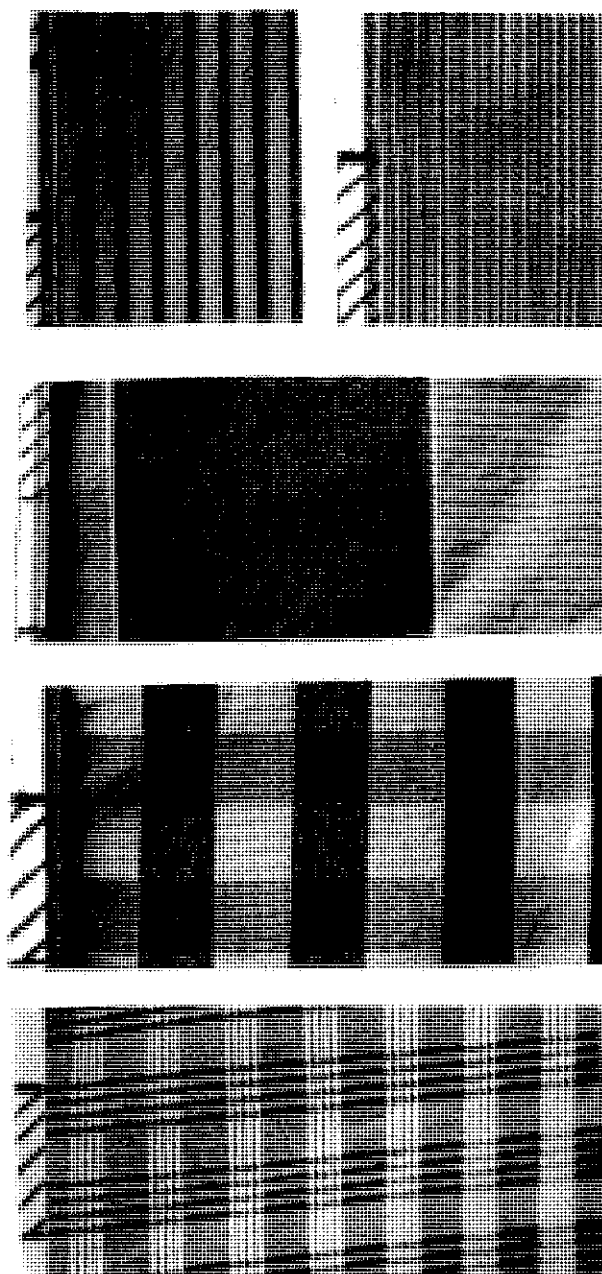


Figure 3.17. Warp stripes and plaids. Top, two stripe variations created by grouping different numbers of different colored warps, the same color of filling throughout; second from the top, another stripe variation; third from the top, gingham plaid, two colors of vertical warp stripes and two filling colors; below, another plaid variation.

Courtesy Mrs. Eleanor Conant Saunders.

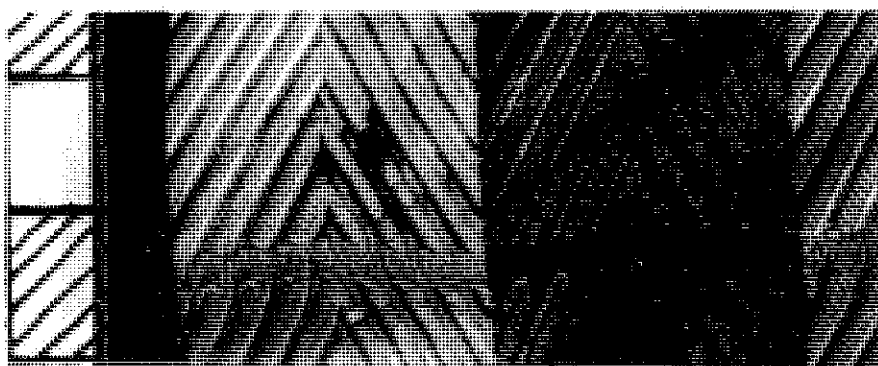
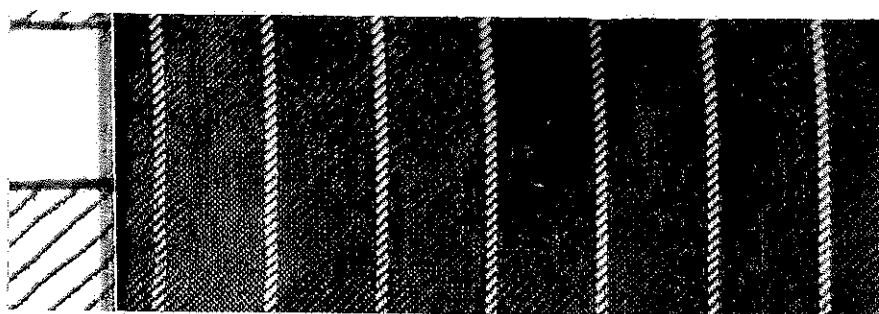
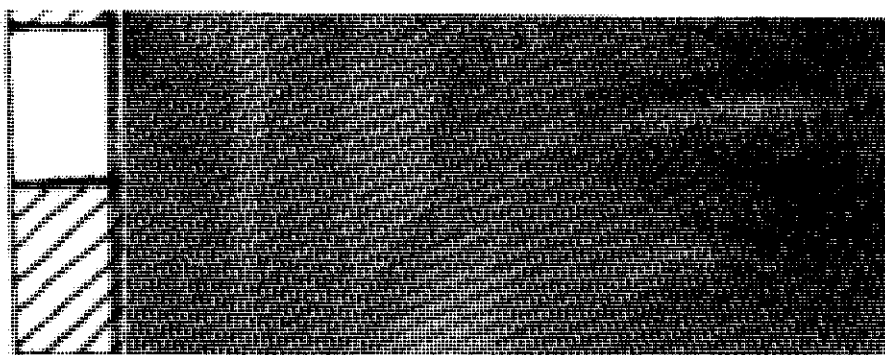


Figure 3.18. Twills. Top, blue/ green changeable dress fabric, washable, unweighted; center, blue/ white dress fabric, washable, unweighted; below, novelty twill, a more expensive fashion oriented fabric, possibly from a small Paterson workshop or imported.

Courtesy Mrs. Eleanor Conant Saunders.

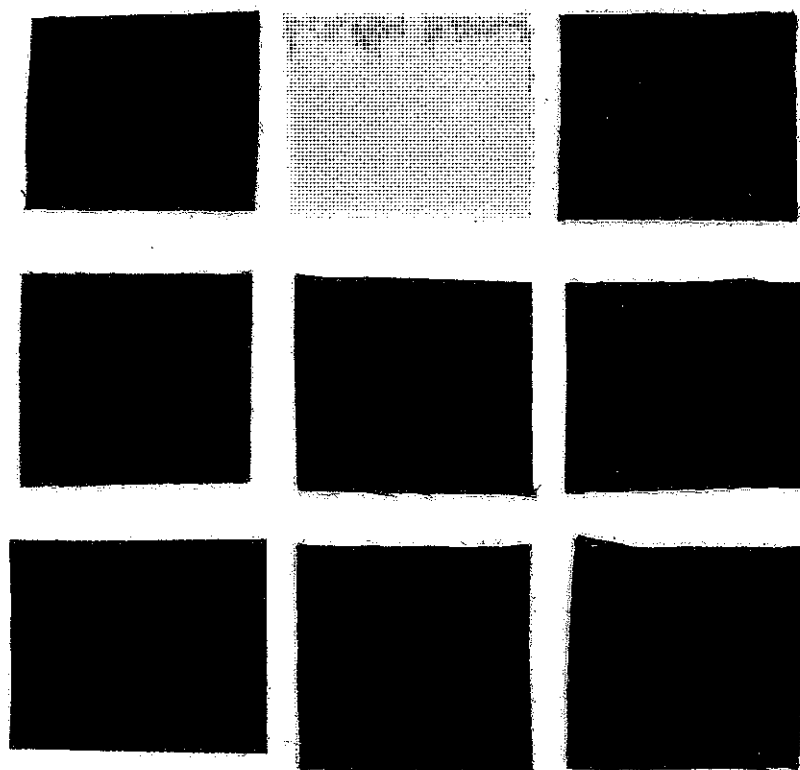
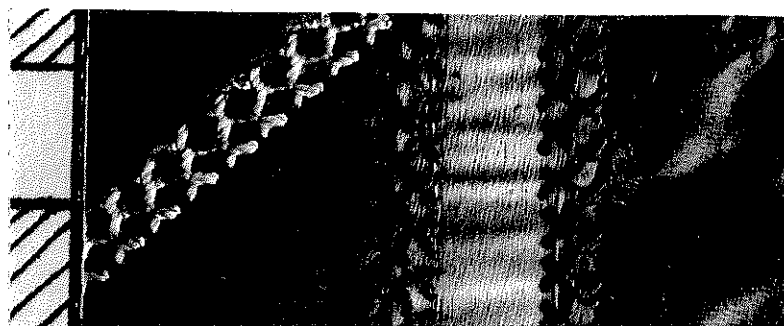


Figure 3.19. Satins and silk samples associated with the Haskell mill. Top, duchesse satin with visible floats in this enlarged photograph. Below nine actual fabric samples, top left, crepe back satin; top center, cream satin; top right, peau de soie; center left, crepe; center, twill lining; center right, faille; below left, fine rib variation; below center, grosgrain; below right, rib variation.

Courtesy Mrs. Eleanor Saunders and Mr. Peter Haskell.

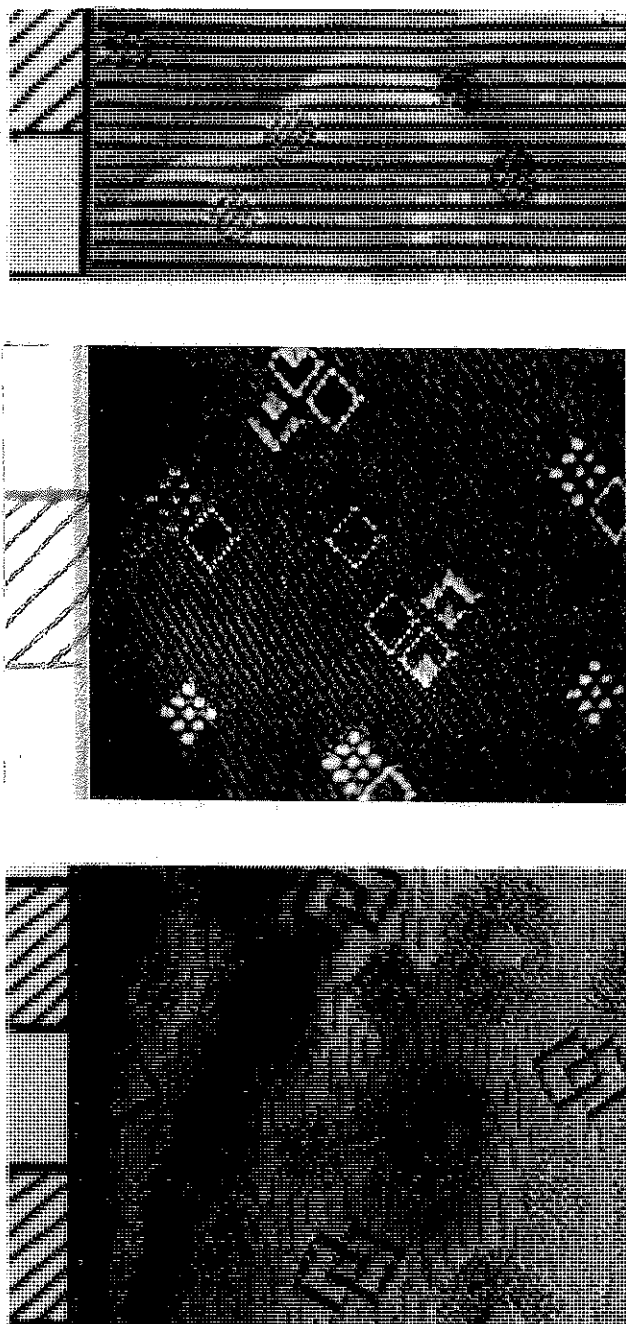


Figure 3.20. Figured fabrics. Top, stripe with spot design made by a supplementary warp or filling (the back of the fabric was not accessible to determine which); center, firm brown/orange twill sample--like a tie fabric--with small geometric design, probably a dobby weave; below, cream and black woven dress fabric, design suggests a dobby or simple Jacquard.

Courtesy Mrs. Eleanor Conant Saunders.



Figure 3.21. Cream colored Jacquard damasks--fabrics typically used for wedding and evening dresses at the turn of the century. Top, heavy damask; below lighter weight damask / brocade. Note the horizontal floats that form the flowers and the speckled areas of textured weave. Both samples show signs of splitting and deterioration due to adulteration, probably with tin.

Courtesy Mrs. Eleanor Conant Saunders.

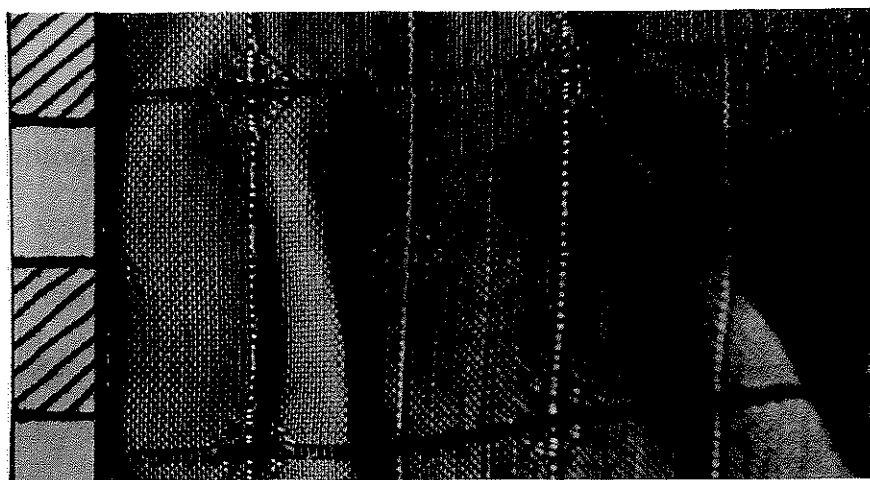


Figure 3.22. Silk / cotton mix. Thin pink cotton warps show up where they cross the thick black filling thread. Shiny white silk fillings show up against the black vertical threads. The overall smooth surface of the plain weave areas is distinctly visible at the left. This was set up on the loom white, with the occasional black thread. When the fabric was dyed pink after weaving the silk remained white. The dye had an affinity for the cotton but not the silk.

Courtesy Mrs. Eleanor Conant Saunders.

CHAPTER IV

CHANGING ATTITUDES TO SILK 1870-1930

While the name Haskell has long since disappeared from the silk manufacturing scene, in the late 19th and early 20th centuries, it was synonymous with superior quality American dress silks popular with consumers. As this announcement in the December 1906 American Silk Journal makes clear, Haskell catered to a large national clientele: "The Haskell Silk Company of Westbrook, Maine, whose production is confined to high grade dress goods and splendidly woven black staples report that they are booking large orders for Spring delivery."¹ To whom exactly these silk materials were delivered in the spring of 1907 is unknown, but company practices suggest they were likely distributed between garment makers, retailers and catalogue companies. The fabrics, thereafter reached their final consumers in the form of yardage for home sewing or items of ready to wear clothing. These two categories of user--individual consumer and retailer/garment maker--developed symbiotically within the cultural, social and economic milieu of the late 1800s through 1920s. During this period buying and selling practices were in transition, as dry goods stores became department or specialty stores and mail order merchandising developed. Throughout these years consumer attitudes to silk textiles likewise underwent a gradual transition. How did consumer's attitudes to silk alter and in which ways

did they remain constant? What do these attitudes reveal about the people who used turn-of-the-century silks?

A variety of contemporary publications offer perspectives on consumer attitudes to silk and the way silk goods were bought, sold and used. A broad national picture was furnished by Silk Association of America reports and the American Silk Journal both of which functioned--among other things--to monitor and report consumer and manufacturing trends. The Ladies Home Journal, The Delineator and McCalls Magazine yielded insights on average middle-class urban silk consumers, while Sears catalogues shed light on the expectations of middle-income and lower budget rural silk users. Newspaper advertisements from Portland and Westbrook, Maine contributed some local specifics. Inevitably inferences drawn from these sources are often broad in nature. Nevertheless instances of specific consumer preferences and attitudes emerge, as do the individual pleasures, pains and anticipations some people experienced through the purchase and use of silk.

Antebellum Silk Consumers

During the antebellum period when American silk manufacture was still at the exploratory stage silk goods were imported from Asia and Europe. The consumption of such expensive fabrics and accessories was largely confined to the upper middle class and most affluent individuals. Despite the expense and very limited availability, however, there was a growing market among the

burgeoning middle class. Anxiously genteel, this group inherited and extended the values embraced by their 18th century forbears for whom, according to historian Richard Bushman:

Gentility heightened self-consciousness, not in any deep philosophical sense but in the common meaning of becoming aware of how one looked in the eye of others. Self-aware performance came about naturally as a result of adopting genteel standards of behavior to elevate human life. People were instructed in a hundred details of how to dress, hold their bodies, and converse all for the purpose of becoming more pleasing . . . people were aware of watching and being watched. . . the aim of genteel discipline was to shine in the best company. Genteel society created beautiful stage sets on which people performed in public view.²

As in the 18th century, the aspiring middle class in the early 19th-century acted out their lives in small towns or rural communities where appropriate clothing contributed, as it did in more cosmopolitan centers, to the projection and maintenance of a genteel persona. At this time factory production began to make greater quantities of wool and cotton textiles and other consumer goods more widely available. In this milieu, desirable silk was still an imported luxury. In middle class circles an appetite for silk goods might be satisfied with a length of glossy ribbon to turn into decorative bows or loops on a white lace cap of the kind worn by most married women in the first decades of the 19th century.

Across the country where it was possible, individuals who aspired to middle class gentility seconded silk goods, when they could, as an aid in the construction of a genteel identity. In the 1830s in far flung frontier Franklin, Missouri, the few people who wanted the trappings of refinement were able to find some supplies of "silk, lace, satin, gauze, silk shawls and silk and kid gloves" in local stores.³ From less remote upstate New York a disapproving commentary noted in 1840 that the men no longer dressed in old style clothes. Regardless of

occupation they now donned more fashionably cut garments and women, instead of wearing old style traditional cloaks, now wore "imitation merino [fine expensive wool] shawls or in cases of unusual moderation and sobriety, to mantles of silk."⁴ While this disapproval of extravagance and luxury marks the writer as one of those who condemned the rise of gentility and the American impulse to emulate behavior rooted in so called European aristocratic manners and culture, it was also a critique of rising consumerism. Nonetheless, as taste for attractive textiles and other consumer products percolated through the population, it was indulged wherever there was surplus income to spend. Even some of the young wage earning women in Lowell succumbed to the lure of silk, or perhaps were motivated in the first place to work in order to earn the cash for such ends.⁵ The author who commented so cryptically on dress in upstate New York might easily have made the same comments in Lowell, Massachusetts, where New England farm girls encountered urban tastes and consumer goods, including some silk. Anticipation of a soon to be realized silk purchase emerges from a conversation among workers in one of the mill girls' published stories:

I am glad tomorrow is pay day. Pray what shall you get that's new Elizabeth?

Oh, I shall get one of those beautiful new damask silk shawls which are now so fashionable. How splendid it will look. Let me see: This a five week's payment, and I have earned about two dollars per week; and so have you.⁶

As Thomas Dublin notes mill girls made choices in the 1820s and '30s: to send money home, to amuse themselves or to improve themselves through buying books, or to be profligate and dress well and "sew . . . wild oats now."⁷ When calico cost nine cents per yard, Elizabeth seemingly was prepared to spend ten

dollars (five weeks times two dollars) on a silk shawl. Even if the shopping spree described never happened, as a fantasy the story reveals a preoccupation with the idea of possessing silk--a not very common commodity at this time. Imported silk shawls and other small luxury silk items--silk velvets, ribbons, bows and ruffles--seen adorning dresses and bonnets in and around Lowell, provide an indication that there were some working girls, like Elizabeth, who were willing to trade off long hours in the mill to earn the means to gratify their desire to adorn themselves with such goods.⁸ Similar to the "the middling sort," who utilized manufactured goods to fashion a genteel identity, some wage earning girls wanted to buy and wear silk, look good and "shine in company" despite the cost of such an indulgence. The evident market breadth drove the ongoing U.S. silk manufacturing development efforts during this period.

Notably the display of silks or any new consumer goods generated negative comment from individuals who recognized that these commodities, products of industry, were indicators of social and cultural change. Like Thoreau they did not welcome the passing of what they perceived to be traditional customs and values or the looming inroads of modern industry. Where the criticism of upstate New Yorkers underscored the conflict between old and new, so did a newspaper editorial published in Portland's rural hinterlands in 1835 that likewise castigated (female) readers on the same subject--dressing up:

On Sunday before going to church what a dressing there is among all classes and what a stir to appear gay and pleasing . . . Curls may be arranged, combs fixed, sparkling earrings, splendid garments displayed . . .⁹

Fancy furbelows and gowns, so disapproved of here but obviously delightfully satisfying status symbols for their owners, are very apparent in early nineteenth

century itinerant portraits such the 1832 Mary Anne Becker Dame likeness painted by local Southern Maine artist Royal Brewster Smith.¹⁰ The subject is shown handkerchief in hand, seated on a stencil backed chair. She is wearing a fashionable pale blue (possibly cotton or fine wool) dress with a delicately embroidered fichu, a lacy scarf and her stylishly piled up hair is ornamented with several tortoiseshell combs.

During the 1850s the demand for silk continued to grow. The strength of the appetite among the rising socially competitive wealthy class can be measured by the increase in imports of manufactured silk products, which rose from 23 million dollars worth in 1851 to 34 million in 1860.¹¹ However, voracious appetites for fashions and silk were not always satisfied with the available ranges of imported goods. As a result determined nouveau riche consumers travelled to the source. In the 1850s, late '60s and early '70s they crossed the ocean, shopped in the new, larger, and many still small Parisian stores, frequented modistes, shipped trunk loads of silks home and after so much extravagance (or perhaps because of it) resorted to smuggling as much as they could to avoid silk customs duty--then standing at between twenty five and thirty percent.¹² To do so they concealed as many small silk accessory articles as possible in their clothes, resorted to wearing several dresses to disembark and bribed the underpaid overworked customs officials.¹³

While silk fashions and fabrics bolstered newly shaped identities, underlying uncertainties in the theater of manners and etiquette could undermine the pleasure initially accrued from these expensive acquisitions. The 1857 parody

Nothing to Wear draws upon the real life social dilemmas that tormented many socially ambitious women in that era.¹⁴ The central figure, Flora McFlimsey, a composite of young New York socialites, lived in a state of constant misery, convinced she had nothing suitable to wear despite three separate six week expeditions to Paris where she shopped non-stop and bought, among many other articles:

All manner of things a woman can put
On the crown of her head or the sole of her foot . . .
Bonnets, mantillas, capes, collars and shawls
Dresses for breakfasts, and dinners and balls . . .
Dresses for winter, spring, summer and fall . . .
All of them different in color and pattern
Silk, muslin and lace, crape, velvet and satin . . .¹⁵

Where an assured Parisienne wore her same few silk gowns throughout the entire season, poor Flora, the personification of many young women of the period, felt she would lose face if she appeared more than two or three times in the same outfit. Flora's predicament reflects the uncertainties experienced to one degree or another by a generation as it jostled for social position. Their world was in transition, becoming more urban, more industrialized, more class conscious and ever more aware of the language of dress.¹⁶

By the 1870s among the supremely self-confident members of the now established high society, as depicted in Edith Wharton's rarified world, the latest Worth (silk) dresses were left to "mature" for several years before making a public appearance.¹⁷ The strategy distanced this elite group from the rising tide of fashion conscious middle class women wealthy enough to join the throng travelling to Europe to shop for the latest styles and silks but unaware that being

too up-to-date was seen as gauche in some quarters. In general, restrained dress signalled good taste and distinguished wearers from over fashionable parvenus and demimondaines.¹⁸

Silk Consumers and the First American Silks

Although the new silk tariff was legislated in 1864, it was not administered effectively until 1876. For transatlantic silk shoppers that year marked a significant change, as L. P. Brockett relates in his History of the American Silk Industry, prepared for the Philadelphia Exhibition. He describes the old lax ineffectual system and the new efficient customs and excise procedures established by the recently appointed New York Port Authority administrator in order to collect the required import revenues. From this time, 1876, on it was no longer possible, as in the past, to bribe customs officers or otherwise avoid paying duty, now a hefty sixty percent on manufactured silks purchased abroad.

Brockett records that:

The effect of these regulations has been to practically diminish smuggling by passengers in steamship lines. What was once an everyday event has become a story of the past. People do not buy abroad expensive silk dresses for themselves and their friends with the hope of evading duties. The officers have become careful, and few passengers will take the chances of escaping detection. . . . No more trunks filled with silks now arrive weekly, as in the old time . . . Already the principle dry goods merchants on Broadway have experienced a decided improvement in their sales of these classes of goods that used to be brought to this port as passengers baggage. The following observation was made by one who has full opportunity of knowing the facts, covers the point. He says, "Without a doubt genteel smuggling has ceased during the past year."¹⁹

While those Broadway merchants proffered imported yardage and other goods made even more costly by the added sixty percent duty, they also at this point carried an array of very affordable American made trims, ribbons and threads. Of course upping the price and calling them European provided for consumers who liked to feel their dress embodied the accustomed stamp and status of foreign glamour. Where yard goods were concerned, a dry goods manual of 1872 conveys an idea of the dearth of silk yardage in the years before the advent of domestic dress silks. This book, designed to inform stores and public alike about every kind of textile, contains details of less than a dozen silk fabrics. The volume does not include trimmings or ribbons, and there is no mention of American made silk; only China, Japan, India and France are noted as silk textile producing countries.²⁰

Because U.S. sericulture failed in the late 1830s the idea that silk goods had to be acquired from abroad and that silk manufacture was outside the scope of American industry became embedded in consumer consciousness. There was little public awareness of the domestic silk industry's steady (although small scale) accomplishments in the manufacture of imported raw silk even though sewing thread, trimmings and goods discussed in earlier chapters were manufactured in the 1850s and increasingly through the '60s and '70s, as were the first tentative dress goods. Even silk experts, members of the Committees of the House and Senate responsible for drafting tariff legislation, were astonished by samples brought to Washington by Silk Association of America members in 1872.

Grave and honorable Senators took the silk in their hands and examined it through their spectacles and magnifying glasses, and put it in their mouth to see if there was any cotton in it, then smelling of it and pulling it to pieces, and finally, [one of them said] "Sir, it is pure silk; do you mean to say that this was manufactured in the city of Paterson? . . . I did not know we were making an article of silk of so good a quality and fine a texture as this in this country."²¹

The virtual invisibility of American silk in its early post-bellum phase was due in part to the fact that consumers as yet did not expect to find American made silk goods and, as already mentioned, stores frequently passed off U.S. silks as foreign. While the custom speaks of profiteering, the practice also signifies that consumers were unreceptive to silk identified as American. After all, the luxury of European silk had a special cache and appeal for the fashion conscious middle class. The instance of American lace illustrates the point: one manufacturer (1874) reported that consumers treated the idea of domestically produced lace as "an absurdity." Undaunted he dealt with this prejudice (as no doubt many different silk manufactures did) and procured satisfied customers by packaging his laces on French cards so they became "Calais goods made in New York."²²

Nonetheless growing consumer expectations inexorably stimulated U.S. silk entrepreneurs to take advantage of improved technology and raw silk supplies and expand production to include broad goods. Starting from the late 1870s and early 1880s the new American product--silk dress goods, gros grains, spun and figured silks--filled the void for well-to-do silk hungry, former genteel silk smugglers. Across the general population, as more middle class families engaged in the business of dressing well and keeping up appearances, the lasting properties of silk-sewn children's shoes were soon recognized and appreciated by parents.²³ Since cotton stitched children's shoes fell apart all too quickly and

by parents.²³ Since cotton stitched children's shoes fell apart all too quickly and there was little price difference between cotton and silk stitched shoes, competition forced manufacturers to use the strongest longest lasting thread, silk, from companies like Haskell, to make durable shoes.

Gradually from children's toes to the consumer's nose, in a multitude of ways, silk goods were incorporated into daily life. The silk handkerchief, once a prized luxury known only to a few, proliferated in the late 1870s. U.S. made handkerchiefs at the time were large, like a modern headscarf, with four or five colors and were often damasked. They were expensive, treasured as gifts--both to give and receive and brought out only on special occasions. When new, they were used by both men and women as dress ornaments, accessories or as a scarf and only "decended to the pocket" after use or the first wash.²⁴ However after the vast displays of silk handkerchiefs at the Philadelphia Centennial Exhibition in 1876, they passed into the popular domain and by 1920 three or four inexpensive small silk hankies packaged in boxes were standard gifts.

Silk handkerchief sales at the Centennial Exhibition (25,000 by one manufacturer alone) and subsequent orders speak of the existence of a keen market.²⁵ No statistics show exactly who purchased the handkerchiefs, however the Silk Association records that "rough looking customers" from "distant parts" were equally interested in these silk articles.²⁶ One individual, described as coatless, with a child on his shoulders and several others in tow, purchased a selection for all the family, paid with a fifty dollar bill and announced that he had travelled 1,500 miles to see the show in Philadelphia. Reports indicate that after

Association observed that this was just one of thousands of instances of business created by the 1876 exhibition.

The purchase of handsome silk handkerchiefs on the one hand suggests an immediate aesthetic response and on the other illustrates the way individuals chose to spend surplus wages on attractive affordable industrially produced commodities. Inexpensive silk handkerchiefs were used as a necktie or substitute for a collar, especially in the West and South because they were cheaper and more convenient than collars.²⁸ Handkerchiefs became especially popular in these regions and contributed to individual efforts to maintain a "respectable" and "clean" appearance, a habit that 19th-century observers believed significant. "Concern for appearance, fashion and taste are an initiation into art . . . In addition and more important, better dress changes a man, he wants to be worthy of it and tries to align his moral behavior with it."²⁹ Since participation in the world of consumption and improved standards of dress signify the adoption of middle class norms of social behavior and gentility, it is evident that the silk handkerchief, scarf or tie played a role in the embourgeoisement of frontier territories.

The Centennial Exhibition brought domestic silks to national attention. Due to the Silk Association of America's public relations efforts, newspapers from coast to coast printed features on U.S. silk manufacture and at the show in Philadelphia visitors saw displays of American silk goods and the machinery used to make them. People watched realistic designs being woven by Jacquard looms. In keeping with the era and the function of such expositions as evidence of industrial accomplishment, U.S. made silk became a source of national pride and,

industrial accomplishment, U.S. made silk became a source of national pride and, for a time, its use was considered patriotic. Despite all this, over future decades advertisements frequently exploited the old prejudice and touted U.S. goods as imports. One reason was a lingering belief that U.S. silks were in some way inferior to imports. Another reason was the foreign commodity's reputation for superior design compared with American silks, often accused of being mundane, and concerned with quantity rather than design.

Stores and Silk Consumers

By the 1890s the U.S. silk dress goods were available in greater quantities, less expensive than imports but still not cheap. By this time few but the most elite shoppers looked abroad to satisfy their taste for silk. Whether in small towns or major cities, middle-class consumers found a profusion of moderately priced silk goods proffered by specialty silk stores and department stores. Even provincial department stores listed two or three thousand samples of different colors and weaves³⁰.

Not far from the Haskell Silk Company's Westbrook mill, one of the new regional department stores, J. R. Libby, the "Big Store" as it called itself, opened in Portland in September 1896. The store drew customers from the surrounding community, including Westbrook, through mail order catalogues and advertisements such as those in The Portland Evening Express and the local Westbrook newspaper The Deering News.³¹ Libby's store was one of the venues

and the immediate Westbrook vicinity.³² Entries in a Haskell sales book record Libby purchases of bolts of silk and Libby's mail order catalogues listed Haskell silks by name and (clearly drawing on the Silk Association 1894 pure dye report) informed customers that "The best, the most effective, the most stylish and wearable Black Silks worn are made by the Haskell Silk Co. of Westbrook. They're far beyond any French Silks."³³ The 1889-90 Libby autumn-winter catalogue lists more than twenty different Haskell black silks priced from \$1. 75 to 75 cents per yard and also includes examples of Haskell changeable taffetas and linings. Foreign black silks are listed under a separate heading.

Perhaps less price conscious shoppers in the area patronized neighboring premises, the Eastman Brothers and Bancroft's specialty shop known as The Portland Silk Shop. Here the emphasis was on quality and variety. This store also made regular purchases from Haskell and stocked the company satins, peau de soies, peau de cygnes, and glace taffetas. Haskell manufactured several different qualities of each fabric and the company sales book shows, for instance, Eastman and Bancroft purchases of both #1 quality peau de cygnes and #2 peau de cygnes, #1 tafetta and #1 1/4 tafetta.³⁴

Table 4.1.--Eastman Brothers and Bancroft: The Portland Silk Store: some new silk prices advertised September 1896.

Fabric	Dollars per yard: least to most expensive.				
Black Brocaded satin duchesse	\$1.00	\$1.25	\$1.50	up to	\$ 3.00
Black plain satin duchesse	-.59	-.87	1.00	1.25	2.25
Black Rhadaman	-.50	-.87	1.00	1.25	2.25
Black peau de soie	1.00	1.25	1.50	1.75	2.00
Pure dye black tafetta	-.69	to 1.25			
Printed warp satin tafetta	-.60				
Elegant changeable tafettas	-.75				
Changeable lining silks	-.50				
Colored lining gros grain	-.59				
Gros grain tafetta-colored/striped	1.00	1.38	1.50		

Source: The Deering News, September 26, 1896.

Prices were influenced by variables such as quality and fabric width. While lighter and heavier weight silks had different end uses, assorted qualities and price points helped bring silk within the reach of lower middle income levels where consumer interest in silk was just beginning to grow. Compared with the silks in Table 4.1 a cotton fabric suitable for a shirtwaist and priced at only 12 cents per yard was advertised on May 4, 1897, by Portland's Rines Brothers, another store where Haskell fabrics were sold.

Gradually, as silk production and sales expanded in the early 1900s, it became the norm for department stores to maintain special silk departments, a development paralleling the overall store restructuring that began at the turn of the century. Gone was the old cluttered style of merchandising with counters heaped with a jumble of goods.³⁵ Operations were streamlined to increase the convenience for both workers and shoppers and entire store layouts were reorganized to function in a more systematic and efficient way.³⁶ Because silk yard goods departments were now among the largest and most important revenue

yielding sections in retail organizations, the location and design of this department was the subject of special attention.³⁷ Separate from other fabrics, silk departments were usually allocated ample well lighted space on the second floor, close to the elevators, next to the ready-made clothing.

Typical silk dress fabric department features are illustrated by a major Chicago department store, Carson, Pirie, Scott and Company's, 1906 floorplan for a new silk department. It is aligned with the windows to bring in natural light for matching colors; two counters were assigned exclusively for black, one for velvets and numerous other counters for all the other classes of silk.³⁸ (Fig. 4.1) Pictures of silk departments often show electric lights resembling small chandeliers hanging above long aisles flanked by glass counters with occasional customer seating. (Fig. 4.2) Instead of the fantastic, extravagant exhibitions typical in the late 1800s, restrained drapes of silk are positioned above the glass cases while broad display counters carry a selection of bolt lengths spread out for consumer inspection. Behind the counters glass fronted units kept neatly organized bolts of silk clean and fresh. Arrangements varied but shoppers typically found the fabrics divided into sections: plain silks; white silks; black silks; novelty silks; foulards and wash silks; evening silks; pongee silks; and silk velvets and chiffons.³⁹ Each class of goods was further organized by price and color--sometimes with the bolts in a rainbow of hues so it was easy to see the entire selection.⁴⁰ While daylight was helpful for color matching, a note in the Libby catalogue informed shoppers that the store kept a special room electrically

lighted at all times because an "electrically lighted evening silk room is a great help in selecting evening goods to be worn by artificial light."

Silk shopping was not confined to dress goods yardage. In other departments consumers purchased silk hose (steadily growing in importance), ready-made clothes, silk linings, ribbons, trimmings, handkerchiefs, neckwear, gloves, underwear, silk upholstery and drapery materials.⁴¹ In combination this assortment of silk articles and the yardage illustrates the array of silk goods likely to be available in any town that boasted a department store or specialty fabric store although not on the grand scale of a major city store such as Carson, Pirie and Scott. Although it is evident that in the short space of twenty five years, 1880-1906, silk consumption had grown to extraordinary proportions, in 1906 silk was still far from being everyday. For many women a silk dress was still something special. For others silk was completely out of reach, but not out of mind or entirely beyond the sphere of consumption. Historian T. Jackson Lears cites observations made by two journalists--one in 1914 and the other in 1924--who noted that displays of fine lustrous silk fabrics generated a gleam to the eye and illuminated poor working women's faces with pleasure.⁴² In 1927 movie The Jazz Singer the Cantor's son tries to make up for his old mother's deprivations and sufferings by promising to buy her a black silk dress as soon as he makes money singing in vaudeville. These women consumed with their eyes. The silk fabrics were the stuff of dreams and, in trying times, dreams provide their own special form of nourishment. Similarly in her study of turn-of-the-century working women, Kathy Peiss observed that the stylish dress New York working girls struggled to afford "flew in the face of the daily round of toil [and provided] an

assertive flash of color and form that belied some of the realities of everyday life."⁴³

In the early 1900s silk shoppers sometimes faced a decision--upstairs or downstairs?--because some stores like Gimbel's in New York initiated two tier shopping which, when applied to silk, meant two silk yardgoods departments. One was in the basement and another in the usual position on the second floor. While this speaks of astonishing levels of demand for silk and signifies a social and economic divide, it also heralds new department store policies designed to accommodate this reality and cater to two groups of customers.⁴⁴ Previously individuals from every economic level jostled in department stores together and, inevitably, in silk departments. Needless to say the wealthiest people preferred to avoid crowds and shop in a more exclusive environment, but department stores "accepted dollars whether proffered by the rough red hand of a charwoman or the kid glove of a millionaires [sic] daughter."⁴⁵ The Dry Goods Economist published articles pointing out the need to find a way to serve both groups of people.⁴⁶ Two departments provided a solution for silks, especially as more low priced mixes and simulations provided ersatz silk to satisfy consumer wants at ever lower prices.

Nevertheless not every store had two silk departments. Nor do silk department floor plans indicate a specific section for bargains, but as noted above they were typically organized by price. On the one hand this permitted each group to gravitate to its own economic comfort zone, but on the other, the sheer exposure to goods proved too tantalizing for some women who resorted to theft

as historian Eileen Abelson's investigation of middle class and wealthy shoppers reveals.⁴⁷ A middle-aged, middle class shopper cited by Abelson was caught with, among other things, five pieces of silk.⁴⁸ Where silk shoplifting is concerned the French novelist Emile Zola also provides illuminating insights into the agitated delirium some women experienced in the presence of masses of sensuous silk--irresistible and seemingly there for the taking whether they could afford it or not.⁴⁹

The revamped store interiors with less silk out on display helped reduce the opportunity for theft and the more streamlined style of business operations with bargain basements contributed in other ways. It was more efficient and helped reduce bottlenecks caused by customers who treated salespeople like menials as did Zola's Madame Desforges--friend of the owner, wealthy widow and frequent shopper. Seated comfortably at the counter she exhausted the sales clerk with demands to see bolt after bolt of the best fabrics while in the end she purchased only a small amount of the cheapest, shown first.⁵⁰ At a time when it took twenty yards of narrow silk for a dress, another Zola salesman was described as "beside himself with rage with an old lady, who . . . kept him for quarter of an hour, and finished by buying a yard of black satin for a pair of stays."⁵¹ With the separation of goods by price or split between departments, customers with an inclination to put on airs found their options limited and the expensive waste of the sales clerk's time was minimized if not eliminated.

Silk dress goods sales clerks in the U.S. were, apparently, male. Photographs (1906) of Chicago's Carson, Pirie and Scott and numerous other silk

departments from the Rike Dry Goods Store in Dayton, Ohio, to Peck's Department Store in Lewiston, Maine, show neatly suited men lined up behind the counters.⁵² (Fig.4.2) In 1924 The American Silk Journal reported that women appeared to be beginning to be capable sellers in silk departments and that Lord and Taylor's employed half a dozen silk saleswomen--but other stores still kept to their old habits and employed men.⁵³ Further evidence of this custom is found in a 1929 series of silk industry fast-dye advertisements.⁵⁴ Aimed at retailers, the advertisements show female shoppers surrounded by male sales clerks. Silk salesmen, alongside supervisors and managers, in department stores, were seemingly part of a masculine minority in an environment seething with "a mass of femininity" where almost all of the buying, selling and serving involved women.⁵⁵ Because the young poorly educated working class males who found their way into department store employ usually turned out to be very unsatisfactory--"ninety percent of them incapable of doing work of a high grade"--it seems strange that male clerks occupied positions behind the counters in prestigious silk departments.⁵⁶ It seems doubly so considering that the process of selling inevitably involved a lengthy interaction with well to do women as they inspected fabrics and made decisions.

The caliber of both customer and stock called for sophisticated product knowledge. Therefore it is not unreasonable to surmise that the silk salesmen were able, ambitious individuals culled from the ten percent of young men who did demonstrate acuity.⁵⁷ However the reasons why men were employed in a department devoted almost exclusively to serving women's dressmaking needs

requires further research. One speculation is that the custom was a hold over from the days when silk was a rare luxury and few women (1885-1900) worked in dry goods stores.⁵⁸ Another possible explanation is that able salesmen gravitated to silk departments because the potential for earning was higher. The goods were expensive therefore the commission was greater.⁵⁹ Perhaps successful performance in a silk department led to career opportunities since stores often poached good personnel from other stores by offering better positions and pay.⁶⁰ This was the route to advancement since as a rule stores, unlike other businesses, did not groom staff and promote from within. It seems probable that as store clerking was gradually feminized, gender bias likely played a part. Stores, similar to offices, were stratified by gender with women at the bottom.⁶¹ Management was more likely to place males in higher paying positions.⁶² Finally there is likelihood that in a male dominated culture female consumers possibly accepted authoritative male product knowledge, advice and opinion when they were involved in decisions involving substantial sums as in silk purchases.

Silk Consumers, Mail Orders and Catalogues

Whatever their economic status and wherever they lived, consumers by the late 1890s no longer had to go to town to buy silk goods. Country-wide consumers read advertisements, sent for samples and made purchases from their local stores like Portland's J. R. Libby and Eastman Brothers.⁶³ Beyond this, just

as some women pondered and scrutinized colorful store silks, others exercised imagination as they pored over black and white printed images and descriptions in Sears and other catalogues. The range of silk qualities and prices on the one hand involved women in a satisfyingly self-absorbing process of dressmaking plans and decision making and yet on the other the comparisons inevitably drew attention to social and class differences. As Elizabeth Cohen argues, consumer society can "fuel rather than suppress inequality."⁶⁴

In 1897 Sears offered a wide range of dress and household textiles. Emulating the structure of department stores, all the silk yard goods were gathered together in a special "Silk Department."⁶⁵ In the 1897 catalogue consumers found just one column of copy and one page of illustrated novelty silks--in all only about two dozen silk fabrics. Some were low cost Asian wash silks, others changeable tafettas, described as direct from the factory--possibly even Haskell since the company sold direct. The copy also declared, "We sell dress silks to our customers for less money than the retailer pays for these goods" thereby presenting the same sales pitch as the super French salesman Mouret, owner of Zola's "The Ladies Paradise." In a discussion about his much anticipated store sale Mouret let some patrons know that their favorite dressmaker:

Watched for the Paradise bargains, laying in a considerable stock, which she disposed of [to women she made dresses for] at double and treble the price she gave. "Thus I am quite sure her buyers will snap up all our Paris Paradise. [special in-house tafetta] Why should she go to the manufacturers and pay dearer for silk than she would at my place"?

This was a decisive blow for the ladies. The idea of getting goods below cost price [themselves] awoke in them all the greed felt by women, whose enjoyment as buyers is doubled when they think they are robbing the tradesman. He knew them to be incapable of resisting anything cheap.⁶⁶

That American women were equally responsive to silk bargains is instanced by Macy's famous 1902 silk sale. Habutae, usually referred to as Jap silk, was offered at 41 cents per yard but the competition, Hearn's, countered with something similar at 39 cents. Once started the price slashing continued until, at the end of the day, with women crowding and fainting in the aisles, Macy's sold "eleven yards for one cent."⁶⁷

On the face of it, these special sales of low priced silks presents a picture of female consumers manipulated by wily merchants. However, to put the bargain events in perspective, turn-of-the-century silk market appeal centered on cheapness, to satisfy a much expanded consumer group. With the exception of the Macy fracas, for many would be silk consumers silk was not really cheap at this time. Whenever budgetary considerations were a factor, the decision to buy silk was one to be deliberated because even inexpensive silk cost more than other dress materials suitable for similar end use. Therefore the purchase of sale or "bargain" silk represents an economic means of satisfying already existing consumer desires rather than an artificially stimulated action. In the end women bought the silk goods largely because they wanted the appearance and satisfaction that comes from wearing silk and they valued the gentility associated with this material

Mail order shoppers found bargains in catalogues. In the same year as Macy's sale, consumers found "Jap" and Chinese wash silks priced from 25 cents to 59 cents per yard in Sears catalogue.⁶⁸ Good quality silks, possibly some Haskell tafettas, were listed in the same way as in stores--by price and quality

ranging down from 98 cents per yard through 79, 69, and 49 cents per yard to suit different pocketbooks. A bewildering variety of other silk yard goods in numerous qualities, every color and countless patterns filled what Sears now designated "Our Mammoth Silk Department," a collection of five packed pages in all. This catalogue also offered a profusion of silk garments and accessories, where a few years before, in 1897, the silk yard goods were few and other silk articles amounted to a solitary silk skirt, some tafetta garment linings, ribbons, silk trimmed hats, and a few silk umbrellas and parasols. The expanded offerings in the 1902 catalogue included a whole illustrated page of black silk skirts, \$2.25-\$17.50; a page of silk shirtwaists, \$2.98-\$6.95; two and a half pages of silk swathed hats; numerous collars, stocks and scarfs; umbrellas and parasols; pages of men's silk neckwear; and a wide selection of ribbons, trims and braids.

From the consumer's point of view, however, the silk dress goods added up to a very small and exclusive selection in the context of the complete catalogue. Far more plentiful were much less expensive articles, made from cheaper types of fabrics. Despite its name, the "Mammoth Silk Department" was but a few page flicks in the midst of what amounted to truly mammoth offering of clothing and yard goods of cottons, wools and mixes, some very cheap and others--the best woolens--priced on a par with silks.

Affording Silk

In the early 1900s a number of factory girls, like some of their Lowell sisters of the 1840s, chose to spend hard earned money on silk. Silk evoked a response to beauty more than most industrially made consumer goods. Historian T. Jackson Lears classed as "artifacts of an aesthetic dimension" those that occupied "a realm of compensation for the work and worry of everyday life, a mental and emotional space where one could . . . luxuriate in the sensuous experience of material abundance."⁶⁹ Cheap but attractive mass produced cottons and woolens as well as inexpensive ready made meant that working girls might dress attractively for little cost. However, some independent self-supporting young women, untrammelled by family responsibilities, were able to go further and indulge in the pleasure and expense of silk clothing and spend most of their earnings on dress. A turn-of-the century upper middle class female investigative reporter, who worked in various factory situations, complained of factory girls profligacy. She found that some girls, employed in an up state New York mill, typically expended most of the five or six dollars reaped from a sixty hour week on cheap lace, stockings and ribbons by the end of pay day.⁷⁰ The same reporter, this time in a Chicago frame factory, contrasted the sober sensible dress of recent immigrant girls (who likely turned their pay over to the family) with the sartorial extravagance of young independent American women wearing "elaborate shirt waists in light colored silks with fancy ribbon collars."⁷¹ Some young women, supported by their families, had no need to work, (as was the case

with a few of the first Lowell mill girls) but willingly put in gruelling factory hours to gain the money to spend as they wished--in the early 1900s often on rustling silk petticoats and other stylish silk items.⁷² Those obsessed with appearances put expenditure on dress before decent accommodation and food.⁷³ As Peiss's study noted, although New York working girls recognized that it was foolish to squander money on ribbon and fashions, many went ahead and spent the fruits of their labor on finery anyway because it was pleasurable; they wanted to look good and, as one young woman put it, "you gotta have some style about you" to go out and socialise.⁷⁴ However it was this prevalent desire--to look attractive, to wear pleasing silk fabrics and to spend money to achieve this ambition--that spurred manufacturers to produce the more affordable tub silks, silk-like finishes for cottons and flimsy weighted silks that brought silkiness within the purview of young wage earning women of this generation.

When turn-of-the-century factory girls admired and took note of all the chic ladies strolling in the vicinity of uptown department stores, they little imagined the struggle such dressing often entailed for middle class women anxious to keep up with constantly changing modes. Although these women benefitted from a higher income, being in fashion and keeping up appearances often meant husbanding resources.⁷⁵ Eileen Ableson points out that in the middle class milieu anyway, "spending [on dress] even at the risk of economic strain, was a necessity concomitant of social standing."⁷⁶ Around the turn of the century money spent on items other than essentials helped families define their style of living from those below.⁷⁷ Dressing modishly was one of the ways the

middle class could "sharpen the line between themselves and the working class."⁷⁸ These efforts took energy and ingenuity, as the stream of sewing hints, advice and suggestions on make-overs in The Ladies Home Journal and The Delineator testify. These magazines provided a combination of practical information and psychological reassurance along with an array of options and ideas women could adopt or reject.

Silk fabric, long considered a status symbol, figures frequently among the dressmaking strategies magazines suggest for refashioning clothing to keep up with new styles. Because of this it is likely that the middle class group of financially stressed consumers patronized the silk bargain basements and earnestly sifted through the silk remnant boxes. In 1895 the regular Ladies Home Journal feature "Newest In Dress Design" recommended using black silk for skirts, collars, belts, skirt panels or double box pleats when making over a gown.⁷⁹ When in doubt about what to buy to remodel, readers were advised to use black satin at \$1.25 or changeable tafetta silk in a matching or contrasting shade.⁸⁰ A regular dressmaking advice column in the same issue offered ways of making a little silk go a long way, and responded to questions from readers obviously unsure about what was still considered fashionable and what colors to wear. With questions omitted and names, for the most part discretely reduced to initials, the columnist briskly provided suggestions:

Mrs. L.K.A.	Have panels, plastron and sleeves of white China Silk overlaid with black chiffon or eyelet worked net to eke out your stone and white China Silk.
L.H.	Moire is fast going out of fashion.
Gertrude	Have a waist [blouse] of changeable tafetta in blue brown, beige cherry or green and beige. ⁸¹

The anxieties embodied here recall those experienced by the fictitious Flora McFlimsey who decades ago worried about dressing appropriately, suffered agonies of uncertainty about what to wear and felt she had to keep buying new clothes. A defence of Flora's mistaken values and her shopping habits, published later, pointed out that everything "we call refinement, culture and civilization and comfort, is but the intelligent gratification of facetious needs" and that most people cultivated wants beyond their circumstances.⁸² Nonetheless in a society that promoted self-improvement and where people strove for upward mobility, the competitive environment made keeping up a well dressed, stylish appearance an imperative for men and women.

Turn-of-the-century features in The Ladies Home Journal, The Delineator, Harpers Bazaar and Vogue indicate that middle class women, either alone or with the help of dressmakers, diligently remodelled silk garments and salvaged out of date clothes made from good quality silks. Shabby and worn silk gowns were sponge cleaned with concoctions of cold beer or alcohol and water, dresses were torn apart, fabric turned, remade and updated. If the garment was past that, the skirt was transformed into an underskirt and new taffeta ruffles were added along the bottom. In the 1890s a further addition of a new transparent grenadine overskirt serendipitously created a very a la mode garment.⁸³ These practices continued. In 1904 The Ladies Home Journal still gave advice on freshening up a wardrobe and assured readers "every scrap of old material may be made use of."⁸⁴ By 1914 less silk was needed per garment, and the next generation was initiated into "the joys of making a dress from a couple of remnants."⁸⁵

When revamping called for new, often small amounts of silk, shopping became an excuse (if one was needed) for women to scour silk departments, to compare silks, to cogitate, to fantasize about possibilities, to succumb to extravagance or as Abelson describes, to the temptation to steal.⁸⁶ New pieces of silk were used to embellish half-worn clothes with au courant details. For this task The Delineator seasonally purveyed patterns for individual (distinct from entire dresses) garment parts: the latest in sleeves, lapels, collars, collarettes, cuffs, bodices, skirts and boleros. For one of the latter, "a jaunty affair," the recommendation to use plain or fancy silk was a typical suggestion.⁸⁷ In general for skirts and jackets silk was also specified as the best for lining but "where cost is of moment this is not to be thought of. There are substitutes . . ." ⁸⁸ This discretely phrased remark delicately circumnavigated the problem evident from all of the above: affording silk.

Another example of this pervasive preoccupation--affording silk--poignantly illumines the inherent emotional investment that sometimes accompanied the acquisition of silk clothes. Amongst the aspiring, mobile, middle class, where dressing the part helped secure social rank and economic status, no one was more aware than mothers of the importance of dress for the launching of daughters into local society or beyond. Even in an age of increasing independence for girls ambitious middle class mothers performed budgetary gymnastics to give their daughters every advantage and to keep up house and family appearance. Rites of passage--confirmation and commencement--exposed soon to be marriageable daughters and the family to the scrutiny of a panoramic

public gaze; "rightness" in dress on these occasions was of the essence. Magazines were replete with advice on dress and behavior appropriate for these social functions. They aimed perhaps to shape taste, but there is no way of knowing how much attention was paid to the recommendations. However, the fact that information was presented and that the magazines were popular suggests that readers availed themselves of guidance as and when it suited their purpose.

In May 1895 a Ladies Home Journal regular article on the popular seasonal topic of confirmation and commencement wear indicated that fine cottons might do, but silk was preferred. Chiffon became too expensive because it required a lining. Extravagance was not necessary. Mothers were assured that simple gowns of inexpensive silk or silk and wool mixes were adequate for these celebratory events despite the prevalent vogue for much more lavish ensembles. If possible, the writer added, it was worthwhile letting "your girl" have a "special gown" (meaning silk, not a cotton or an existing dress), on the one hand to be on a par with her peers and on the other so she would not "suffer the pain" of being different. At this time in a girl's life, the counsel continued, it was hoped that mothers would not wish daughters to suffer because all too soon "enduring pain" (the struggle to dress well, budget, do without, etc.) will be something she would have to cope with--as all women do.⁸⁹ No doubt many women sacrificed for their children, and provided silk dresses for these occasions in the hope that daughters and the family would be represented in the best light. Some mothers unable to cut economic corners any further likely counted among those who resorted to shoplifting.⁹⁰

By the late 1890s and early 1900s silk yardgoods and even ready-to-wear silks were more available than ever, but still not as cheap compared as other mass produced fabrics. While The Ladies Home Journal cited the cost of outfitting a young woman at two hundred dollars per year in the mid-1890s, in 1901 one set of clothes for an upper middle-class female might cost almost five hundred dollars whereas a factory girl might be fully garbed for as little as ten dollars.⁹¹

Table 4.2.--Comparison of upper-middle class and factory girl clothing expenditures 1901.

Garments upper class	Price	Garments factory girl	Price
Hat	\$ 40.00	Small felt hat	\$ -.25
Sealskin coat	200.00	Grey serge coat	3.00
Black cloth dress	150.00	Black skirt	2.00
Silk underskirt	25.00	Flannel shirt-waiste	1.95
Kid gloves	2.00	Woolen gloves	-.25
Underwear	30.00	Underwear	1.00
		Tippet	1.00
	<hr/> \$447.00		<hr/> \$9.45

Source: Mrs. John and Marie Van Vorst, The Woman Who Toils (New York: Doubleday, Page and Co., 1903), 173.

Sears 1902 catalogue offered standard items of dress, skirts, underskirts and waistes, in a variety of qualities and prices of silk or silk-like fabrics. For this study examples were selected to provide a range from the most expensive to the least expensive in the catalogue.

Table 4.3.--Comparison of the cost of three basic garments, including silks from the most to least expensive in Sears catalogue, 1902.

Garments	Fabric type	Price	Fabric type	Price	Fabric type	Price
Shirtwaiste	silk	\$6.95	silk	\$3.75	sateen	\$ -.75
Underskirt	sateen	1.19	sateen	-.98	gingham	-.50
Skirt	silk	17.50	silk	10.50	silk	7.25
		\$25.64		\$15.23		\$8.50

Note: Sateen is glossy mercerized cotton often described as "like silk."

Source: The 1902 Edition of the Sears Roebuck catalogue (New York: Bounty Books, c.1969), passim.

The price differences illustrated in Table 4.3 show that shoppers from different economic brackets found garments, including silk, to suit their means. Even the most expensive articles, however, cost much less than the upper-middle class garments in Table 4.2.

The average shopper dressing from Sears catalogue was able to assemble a basic ready made outfit for what seems to be a modest financial outlay in 1902. But how do the figures in Table 4.3 relate to middle-class budgets? Horowitz comments that higher income allowed higher middle-class families to spend money on "larger more varied wardrobes."⁹² Yet when the apparently modest silk expenditures shown in Table 4.3 are examined in relation to family clothing budgets, they constitute a significant percentage of the amount households were likely to spend annually on dress, shown below in Table 4.4. Dating from the first decade of the 1900s, middle class family incomes cited by Horowitz include:⁹³

- 1) Comfort loving--income \$4,000--annual family dress expenses--\$450.
- 2) A thrifty family--income \$2,400--annual family dress expenses--\$192
- 3) Careful family--income \$1,800--annual family dress expenses--\$225.⁹⁴

Although the dates of the Sears 1902 catalogue prices and the Horowitz budgets of around 1910 do not correlate exactly, the figures cited in Table 4.4 help generate an idea of the buying power the various sums represent. It is assumed that the highest income family would purchase the most expensive set of Sears garments and the least expensive clothes would be bought by the family with the lowest of the three incomes.

Table 4.4.—Percentage of the family entire annual budget spent on dress (ca.1910) and the percentage that would be taken up by the 3 Sears items in Table 4.3.

Family annual Income	Amount spent annually on dress	Cost of 3 items from Sears	Percentage the 3 items amount to in relation to the entire family annual dress budget.
\$4,000	\$450	\$25.64	5.6%
2,400	192	15.23	7.9%
1,800	225	8.50	3.8%

Source: Family budgets and annual expenditures on dress from Daniel Horowitz, The Morality of Spending. Attitudes Towards the Consumer Society, 1875-1940 (Baltimore: Johns Hopkins University Press, 1985), 103; cost of sets of clothes calculated by the author from Sears Catalogue, 1902, Table 4.3.

The few silk garments used in these calculations were far from the best on the market and represent but a fraction of the new clothing one individual in a family of four or more might be expected to buy in a year. From these figures it appears that ten yards of 19 inch Kai Kai wash silk at 45 cents or the same amount of a 20 inch corded silk at \$1.09 per yard for a commencement dress would have a considerable impact on a tight annual family clothing budget.⁹⁵

Worries about making ends meet were a central concern in middle class households. Horowitz points out that in the early years of the century the discussion of middle class budgets was dominated by the belief that with the

demise of productive activities in the home women's "most important role [now] was as consumer not producer." Those who saw potential extravagance as a problem advocated: "Careful spending, energetic housekeeping, household management, [and] meticulous record keeping" as the means by which middle class women might avoid immoderation and maintain the family's economic independence.⁹⁶ Despite all these misgivings, in his study of consumer culture historian William Leach argues that although women might be vulnerable to the "perils of shopping" it is probably safe to say that most were sensible and did not suffer from them.⁹⁷

Attitudes to the Wearing, Weighting and Washing Properties of Silk

In the earliest days of domestic silk production consumers appreciated silks that stood up to years of rigorous wear. One American traveller in the mid-1870s recorded her experience wearing a gown made from a length of the Cheney Company's very early black grosgrain broadcloths:

For the first six months I did not know whether I liked it or not . . . I wore it everywhere and kept on wearing it . . . I crossed the sea with it; wore it throughout England; it was my everyday dress and Sunday-go-to-meeting dress for six months in Paris; it protected me from the blasts of the Mediterranean, and went everywhere I did in Italy, from Naples to Venice; it sailed on the Adriatic, was my constant companion during three months of adventures among the heathens of Vienna, and now that I've worn it back to Paris, and turned it wrong side out, hind-side before and up-side down, it is still my best gown, and the only friend I have that I have endowed with infallibility; in short, it is the most remarkable silk I ever saw.⁹⁸

Twenty years later in the mid-1890s the picture was different. By now some consumers were unhappy with the fabrics they bought. Published complaints alleged that domestic silks were weighted and inferior compared to the foreign product. The American Silk Journal's response, the initiation of the comparative chemical analysis to confirm the quality of U.S. silks described in Chapter II, suggests that these assertions amounted to an attack (presumably by foreign manufacturers) designed to discredit the U.S. industry and undermine consumer confidence in the American product. However, The American Silk Journal was the organ of the American industry and pro-tariff and it was Journal policy to support U.S. silks. Perhaps Haskell was already known in some quarters for quality and the selection of Haskell silks for the analysis was deliberate to ensure a good outcome because some U.S. companies by this time practiced excessive weighting in the effort to turn out cheaper goods. Nevertheless because the results of those tests advertised Haskell pure dye silks nationwide, the Haskell name became a byword for quality, a name retailers promoted and consumers asked for. In fact Haskell used reprints of The American Silk Journal article as a marketing piece.⁹⁹

Despite the availability of fine pure dye silks, by the late 1890s, with so many seasonal fashion shifts, many of the most fashion conscious women were less inclined to think in terms of quality and years of wear. The change of attitude meant that in order to keep up with styles women preferred to look for less expensive silks and make more modest purchases more often. This pressured retailers and, in turn manufacturers, to try to keep prices down.¹⁰⁰ One way to do this, of course, was weighting. In moderation this was a reasonable way to give

consumers what they wanted. According to silk expert Chittick, a small amount of weighting, carefully done, provided a "sound commercial article" that gave satisfactory wear at less cost than pure silk.¹⁰¹ Thus the consumer might enjoy a good quality tafetta at seventy five cents per yard that would be one dollar and ten cents, if pure dye--a difference of thirty five cents.¹⁰² Although this all seems very practical and reasonable Chittick makes it clear that many retailers, bent on making high profits, often refused to pay for better silks, and as result the only way manufacturers could make the goods at the low price retailers wanted, was through heavy adulteration.¹⁰³

Heavily "charged" or weighted silk imports found a market among fashionable upper middle-class women, who apparently liked these materials because they were stylishly au courant. The fabrics lasted a season and that was all they expected.¹⁰⁴ Other less well off consumers however, who probably harboured hopes of longer use, afforded only the cheapest silk and inevitably found themselves with the most overweighted goods, domestic or European. These silks deteriorated rapidly in stock or soon after they were taken into use. "When heavily loaded, the fabric gives little satisfaction . . . Sometimes the superfluous dye-stuff shows itself after a few days wear, in spots and blotches; sometimes the dress begins to look greasy or rusty; before long it frays and breaks in the folds, and then the ruin is complete."¹⁰⁵ These were the predominant fabrics encountered by women who spent factory wages or hard-come-by savings on low priced silks in bargain basements or in milltown dry goods stores. There, in the early 1900s, priced from eleven to twenty dollars, "silk dress skirts,

trimmed with lace and velvet" were made of fabric so poor it was unlikely to "wear for more than a few Sunday outings."¹⁰⁶

Middle class women suffered their own frustrations and confusions shopping for silk as silk industry consultant Chittick observed in his January 1913 review of U.S. manufacturers silk weighting:

The consumer has no way of knowing whose goods she is getting and where a line of poor goods is substituted by the retailer for the reason of a difference of a cent of two a yard in price, she was no wiser, except that she finds that this gown did not wear while the last one of the supposedly same fabric did and so she gets the belief that no silks were reliable.¹⁰⁷

The consequences this consumer dissatisfaction were threefold: a shift among some consumers to interest in quality as well as price; the growth of brand name advertising as some manufacturers mounted a campaign to re-establish consumer confidence; and some shoppers turned to cheap but reliable substitutes like mixes, or mercerized cottons. Although these goods represented a compromise, the price, a silk-like "hand" and appearance and silk-like names, all contributed to their appeal.

In the early 1900s some mixes incorporated rayon, although in these years only dealers and manufacturers were familiar with rayon and the general public could not ascertain the difference between silk and rayon.¹⁰⁸ Rayon was not manufactured in America until 1910-11, which indicates that the rayon and part rayon fabrics, ribbons and other goods advertised before then were either imports or made from imported rayon filament. In 1904 The Ladies Home Journal advertised a fabric that was possibly mercerized cotton or even one of the new mixes but seems more likely to be an early rayon, "Pres de Soie. Newest and best material for slips, skirts and petticoats . . . like taffeta silk and costs a third of the

price.”¹⁰⁹ In the same magazine a fabric called Radium Silk claimed to be as soft as the softest dress silk and as strong as the strongest silk.¹¹⁰ Another similar material, “Fil de Soi. Lustrous . . . surface qualities of silk . . . adaptable to all the desirable effects so much sought after in silks and more expensive fabrics” was featured in 1905 in The Delineator.¹¹¹

The inexpensive alternatives to silk included rayons, silk mixes and mercerized cottons. Mercerization, a chemical process known since 1844, imbued cottons with a permanent luster. From the late 1890s through the 1920s the word mercerized and trade names for mercerized cottons--Farmers Satin, Sateen, Silkaline and Nearsilk--established themselves in consumer's consciousness through advertisements and copy in mail order catalogues.¹¹² Used widely for all kinds of linings and underskirts, these cottons were frequently described as resembling silk, as silk textured, as having the appearance of all silk or in one example “as perfect as the heaviest and best silk . . . and will wear better.”¹¹³ In as much as they were silky, affordable and hard wearing, these materials gave one segment of consumers what they wanted.

Of course the stress on wear in the comment above referenced many women's disenchantment with disintegrating weighted silks. As many low end consumers inexorably moved from these inferior goods to alternatives there was an attempt to redirect industry efforts to meet middle market demand for more and better medium quality silk fabrics. In a highly competitive, glutted market some upscale manufacturers began to provide buyers with the means to distinguish similar silk materials one from the other by printing a name on the selvage. In

1905 the York Silk Manufacturing Company advertised its "Moneyback" black silk in The Delineator. The advertisement shows a disconsolate female face staring out from behind ragged vertical strips of shredded silk, as though through prison bars:¹¹⁴

How many women have had just such an experience with silk as this picture represents? A few weeks wear and the garment gone to shreds--absolutely falling apart so you could see thro' it. This is merely the result of weighting . . . the one cause of all silk troubles and one which every woman may now positively avoid by insisting on the brand with the patent selvedge bearing the name 'Moneyback.'¹¹⁵

Other names consumers found on the selvages of better silks at this time included W. M. F. Read, Duncan Stenz, Pelgram and Meyer's "Arbis," and probably also Haskell, since the Westbrook company's dyer, Theodore Bachofen, patented piece dyeing machinery capable of printing a trademark intermittently along a selvedge.¹¹⁶ Apart from this, Haskell fabrics were already well known by the name "Haskell" and through fabric lines specially made for individual stores. Far from being one of the anonymous producers the company had long manufactured what today would be called "housebrand" silks. Described earlier, a wide selection of goods marketed as "Cashmere Peerless Silks" were produced by Haskell for the Libby store, which suggests that this company (and others) supplied similar special lines to other retailers.¹¹⁷

Printed selvages, brand names and advertising copy all reflect an industry awareness of consumer dissatisfaction with over-adulterated silks and knowledge of the demand for reasonable quality at modest prices. Consumer anxiety about weighting explains much of the language Sears employed, even to describe its (silk substitute) sateens. In the face of growing competition and to distance

themselves from inferior fabrics, both yardgoods and ready-made manufacturers assured and courted customers. Sears 33 cent surah was defined as "substantial silk" and "not the poor grade," Samson's silk ready made skirts would "not go to pieces in a short time" and "Arbis" pure dye tafetta was "made to wear, will not crack, will not tear."¹¹⁸ Despite all this shoppers constantly looked for cheaper silks. Pressure from consumers and the increased cost of retailing (overheads/advertising) meant that retailers, determined to make high profits--noted earlier--made demands on manufacturers for silks that might be sold for more than they were worth--that is, weighted goods.

Notwithstanding dismay with some classes of weighted silks, consumers sought out others, the rustling silks. The scroop or scratch of layers of silk abrading each other in swishing skirts was an integral turn-of-the century fashion feature. Some of the new substitute silk materials delivered the desired sartorial sound at very low cost. "Pres de Soie" offered not only the feel of silk but also the "cry." For eight cents per yard in 1897 women across the country experienced the gratification of rustling with Sears New Rustle Lining (mercerized cotton) which had "just enough stiffness to make a rustling sound resembling silk" or, even better, Sears Mercerized Spun Glass Rustle Lining "mellow crisp and serviceable for medium quality dresses." However the best rustlers were very expensive all silk dress goods made from unweighted very fine denier threads.¹¹⁹ It was the dry highly compacted hard weave that produced top grade "silks that talk."¹²⁰ Rustling connoted de luxe silk. Middle class women obtained the next best thing in the likes of Haskell pure dye dress

tafettas. Other, optimistic, consumers paid 59 cents a yard for Sears rustling, "heavy," "crisp" and "trustworthy" silks although at that price it is unlikely that the quality was what it was made out to be.

Not only price and quality but cleaning and washability increasingly preoccupied consumers. Libby's catalogue carefully noted which Haskell silks "you can wash without injury." For both established and new users among the growing legions with the means to buy silks, The Ladies Home Journal regularly published recipes and processes for sponging and freshening up heavier, especially black silks. However, as one advice columnist cautioned "an old subscriber" in 1892 "if a color silk needs renovating I would advise you to send it to a reliable dyer."¹²¹ As this warning suggests, the issue of color fastness was a problem intertwined with cleaning and washing. Later, in the 1920s, the era of short silk dresses, silk stockings and silk underwear, advertisements urging the idea of "quick tubbings" in Ivory Flakes speak of the general consumer expectation by this time that many silk fabrics be washable and fast dyed.¹²²

In the late 19th century linings and elaborate garment construction also complicated cleaning. However by the turn of the century, magazines showed readers how to overcome some of their silk cleaning concerns by ploys such as making a separate cotton or wash silk (habutae or Kai Kai) linings for waistes or frocks made from best silks. Washability was another reason why the new mixes, often called tub silks, found popularity. Also thanks to developments such as Cheney's "Shower Proof" pure dye, foulards women could relax and enjoy their silks with less anxiety about small marks and stains permanently spoiling their silk gowns which even by 1910 continued to represent a considerable investment.

Ubiquitous Black

Black silks streamed from Haskell looms in Westbrook into the torrent of other black silk goods that slaked middle class consumers thirst for this color of silk. Not confined to women's wear, black silks of various classes and qualities were used for coat and jacket linings, neckwear, umbrellas, and judicial and religious robes. The 1870s traveller above provides a testament to the merits and versatility of all purpose black silk. Her story amply illustrates historian Philippe Perrot's reading of the place of black silks in late nineteenth-century dress. From an expression of wealth and elite fashion in mid-century the formal black silk dress slipped from an aristocratic position to become the classic middle class "best" dress, and from thence declined even further to the commonplace serving every occasion.¹²³ Wearing black silk in the late nineteenth century signified modest, middle class means.¹²⁴

With heads ducked under black camera cloths, photographers in every corner of America recorded an endless parade of best black silk dresses as individuals posed for their portraits. Across the wide swathe of the middle class black silk was perennially fashionable and invaluable for its sign value--especially for social aspirants situated precariously close to the boundary between the working and lower middle class. Women in the latter group were no doubt relieved to read in The Ladies Home Journal in 1895 that with a handsome black silk skirt and "several pretty bodices a woman can be dressed for any hour and any occasion--and this is a comfort."¹²⁵ Wearing silk however was not always a comfortable or pleasurable experience. When, as was often the case, a smooth

black lustrous silk dress represented a dream come true, the cherished possession was reserved for Sundays, having a photograph taken and other special occasions. On those days, the wearer felt "all gussied up" and uncomfortable in the unaccustomed refinement of silk. Zola describes this sensation of discomfort as experienced by Denise when she took up her position as a sales woman in the ready-made department at The Ladies Paradise. In her dormitory room above the store she took off the only dress she possessed, a darned and repaired wool, thin, worn and shabby, and,

put on the uniform of her department, a black silk which had been altered for her . . . she had never worn silk before. When she went downstairs again, dressed up, uncomfortable, she looked at the shining skirt, feeling ashamed of the noisy rustling silk.¹²⁶

The sales girls she joined, clones in black silk, relied on fussy hair and cheap earrings as their only a means of personal expression.

Eventually it became the norm for saleswomen in upscale dressmaking and ready-made departments in stores to be uniformed in black silk. In the late 1890s The American Silk Journal noted that not only was the decor subdued in the most fashionable New York dressmaking establishments, but the attendants wore black (silk) so that new dresses no matter what color "will be in no way affected by contrast with other colorings which might be discordant."¹²⁷ Many of these major dressmaking businesses apparently attributed their success to this "simple strategy" as did heads of store (ladies) suit departments. In a parallel development at this time housemaids were also moved into black uniform dresses and for similar reasons. Black effaced individuality and at the same time emphasized the servant's status distinct from colorful upper middle class interiors

and their brilliantly attired occupants. To clothe the maid or maids in black silk was to upholster them in a fabric compatible with the employer's sumptuous living environment, but in a color that was neutral and inconspicuous.

Some black silks were used for mourning. Funerary rituals called for festoons of crepe, while other crepes and dull silks were designated apropos for mourning apparel. Since the donning of special blacks signified adherence to middle class conventions and evidenced economic status, the wearing of black silk mourning even more positively affirmed position in the social hierarchy. However in the late 1890s and early 1900s, when more black silks than ever before were easily available to the middle class, mourning dress customs began to wane. It seems contrary that as soon as black silks became more widely affordable for mourning demand declined. The change is understandable, in part when viewed in relation to the role new glossy black silks played in many middle class women's wardrobes. All other social considerations aside, women's interest in wearing the now available, attractive, fashionable but practical black silks must be seen as a contributing factor in the demise of middle class mourning dress.

Despite all the counsel on mourning etiquette and dress dispersed via women's magazines, it seems that readers sometimes asked for advice in the hope that they would be told it was permissible to flout the rules. In response to an apparently optimistic query a "Home Dressmaking" columnist in 1897 made it very clear that there was no escape from protocol. The subscriber was informed that it was not acceptable to wear (shiny) black silk brocades or satins for deep mourning, even if trimmed with crepe. A recommendation to adopt lusterless fabrics was followed by advice to put any silk satin dresses away in a wardrobe to

be used when mourning lightened.¹²⁸ It seems that this kind of advice became anomalous and less acceptable as more and more women incorporated gleaming black satin and taffeta skirts, glowing black figured, brocaded wraps and other such articles into their stylish everyday wear.

Winds of Change 1914-1920s

Consumer interest in silk continued to grow in the years prior to the first World War. Nevertheless the myriad of new kinds of silk dress goods, plus more elegant mixes, rayons and emulative finishes, confronted consumers with more choices. As a Ladies Home Journal writer expressed it in 1914:

Dress materials have reached such a point of perfection that they may justly be termed "art materials." . . . Silk is no longer just silk, nor cotton just cotton. I don't mean to say one is intended to replace the other, but simply to point out the development which each material has reached which makes it possible to consider a choice between the two for many purposes. For how long did we think our best dress must be silk and our practical every day suit of good stout woolen fabric? Today in view of the paradoxical order of fashion it would be quite natural to reverse it. [emphasis added]¹²⁹

Given silk's established position as the "first" fabric, any suggestion that best dresses need not be silk startles and seems to suggest a radical change in consumer attitudes. However, far from any drastic shift, the foregoing, by implication, actually confirms the continued appetite for silk. What the magazine conveyed (with its usual indefatigable diplomacy) to readers was a simple message--when they were unable to afford silk, or as much silk as they might like, there were lots of socially acceptable substitute materials from which to choose.

Nonetheless there was a change; silk consumption increased. It was not so much because the consumer base expanded (for many people even inexpensive silk remained out of reach) but because consumers integrated silk more fully into their lives. Increasingly within the middle class milieu, as and when economic considerations permitted, silk and silky fabrics made up domestic goods in addition to articles of outerwear, linings, men's neckwear, women's and girls' dresses, underwear, hose, gloves and accessories.

With ambitions no longer limited to a few versatile silk apparel items, by 1915 the fashionable middle class female consumer carried a vision of wearing (in the best of all possible worlds) silk from head to toe, day and night.

The Woman of Fashion will lounge in a silk bathing suit with a long satin mantle at Palm Beach. She will drink tea in plaited chiffon and ribbons galore. She will motor, drive, ride, walk in clothes and underdress of silk. She will dance in gorgeous silks until she is tired and ready for a silk nightgown and we must not forget she wears silk stockings and satin slippers, carries a silk parasol a silk bag, and a silk handkerchief.¹³⁰

Published in The American Silk Journal this lighthearted reflection of current consumer fantasies served both consumer's and manufacturer's interests. Through exaggeration it directs manufacturer's attention to the ongoing changes in consumer attitudes and lifestyle and consequent need to produce appropriate silk fabrics. The new young silk consumers were active; they went to college, worked, drove cars, played outdoor games and energetically danced the "Turkey Trot" and the "Grizzly Bear." They eschewed layers of rustling petticoats, bloomers and heavy skirts, enjoyed soft sensuous silk underwear and showed ankles encased in fancy silk stockings. In this world women wanted lighter, supple, drapery silks for the new style of mobile garments "loose fitting kimono

and raglan models lined with soft silk" without any canvas padding or interlinings.¹³¹

There was a plethora of new types of softer silks to serve these needs. Ever more trade names and advertising helped consumers make choices about price, quality and performance as they navigated their way through the welter of offerings. Goetz Silks touted "the economy" of fine hard wearing silk linings "worthy" of the silk garment, while Lady Duff Gordon, "a world fashion authority," set her seal of aristocratic approval on Cheney lingerie wash satins. Perhaps the transition in consumer taste is best signified by one of Mallinson and Company's new lines--trade name registered "Pussy Willow"--"the silk that took the crack out of tafetta."¹³² Stiff rustling fabrics did not lend themselves to the new modes.

Whether Haskell introduced any new product lines during this period is not known. No special announcements or advertisements have been discovered. In any case elegant drapeable Haskell *peau de soies*, *peau de cygnes*, *messalines*, *surahs* and *tafettas* (those from which Gerhardt's by now presumably omitted the "crack") all would have fit this contemporary market. Women wanted fluid silks for the stylish unstructured clothes of the day, when "a black satin dress was still the most desirable possession."¹³³ Although any assessment of the Haskell Company position in relation to their customer base is conjecture at this point, the attempt forces recognition of several factors. The high quality of Haskell pure dye silks, meant that the fabrics were more expensive than competing weighted goods. Pure dye silks were inherently long lasting at a time when quality was less significant because women were more interested in the idea of frequent

inexpensive purchases. This, in turn, suggests that Haskell customers were better off, perhaps older and inclined to buy the same types of Haskell fabrics that lasted and did not need constant replacement. Therefore it is likely that some of the seeds of the company decline were set at this time if the product line remained the same and, instead of adapting, aged with its customers, as many failed department stores have done more recent times.¹³⁴

This era of growing consumption brought retailers other sets of problems. At a time when stock management was not as fine tuned as it is today, many stores found themselves with backlogs of old fashioned silk fabrics. Instead of selling them off as bargains, apparently some buyers (especially small town mid-western buyers) who saw higher prices in New York actually tried to raise prices.¹³⁵ The price issue was exacerbated by new broad silks, a third wider. They gave more fabric per yard but seemed more expensive. In the end the selling price was governed by store policy, influenced by the nature of demand. Silk quality, style, color and end use were all factors in the decision which was fundamentally based on the intrinsic worth, worth to the consumer and what the consumer would pay.¹³⁶

A dialogue between two department store silk buyers sheds light on retailers different attitudes to selling and the ultimate power of the consumer. In his American Silk Journal article, "New Prices For Old Stocks," an unnamed buyer advises that "Milady" be shown fabrics other than tafettas, georgettes and things "she thinks she wants." He reasons that sales of other slow moving goods--old stock that originally cost less but is now sold at new higher prices--

generates more profit than newer goods where the margin is less because they cost more initially. However to push this strategy successfully, retailers were likely to find that they must remove the sales clerks who knew the old values and prices and replace them with clerks who did not know the difference and therefore did not make the effort to sell popular goods over the others.¹³⁷

This concept was refuted some months later in November 1916 when another buyer noted consumers "strong call" for old favorites. In this opinion a wise buyer did not try to force consumers to buy what they did not want or "educate them up to something better." The belief expressed here was that customers are usually satisfied with what they asked for and "a satisfied customer is the best customer." Sold something they did not want, customers were likely to be dissatisfied and shop elsewhere next time.¹³⁸ The foregoing exchange attests to several points: recognition that it was not so easy to manipulate consumers; with so many choices it was harder for store buyers to predict sales; mistakes, errors of judgement on the part of buyers; and lack of co-ordination between stores and manufacturers (to make what was most in demand).

Just before the U.S. entered the World War One The American Silk Journal reported: "There never was a time when American women wore more silks than today. A few years ago women hesitated about wearing silks but today they wear them from head to foot."¹³⁹ This trend was stimulated by the war and other determinants. In the war period with wool and cotton required for military purposes, linen supplies cut off due to the destruction of Belgian flax fields, silk was left as the generally available fabric for civilian use.¹⁴⁰ According to one

account this situation forced women to opt for silk over other fabrics "if they were going to be useful to their country."¹⁴¹ Whether or not the war and patriotism exerted a major influence by accustoming women to wear more silk, there were other factors concomitant to the greater consumption of silk in the early 1920s. The very substantial expansion of Japanese raw silk supplies (see Chapter 1) enabled U.S. manufacturers to increase output. There was wide promotion of the new inexpensive washable and very practical "sport" silks which were suited to consumer needs and lifestyle. These fabric were used in lightweight silk garments for general wear, comfortable year round in city apartments, now steam heated. In this period the silk consumer base extended to include another group--young white-collar working girls and upper working-class wives, "people with money to afford more department store merchandise . . . comfortable enough to seek fashion and quality but not to ignore price."¹⁴² There was a new stress on style, frequent changes of style and a broadening of demand to include modest priced fashions. Consumers bought more, but cheaper, dresses more often. The increased U.S. population provided a larger number of consumers and potential consumers.

The major increase in silk consumption was among female city dwellers.¹⁴³ Between 1900 and 1925 the "extraordinary habit of wearing silk dresses on days other than Sunday" took place and, unlike fifty years before, American girls now thought it a matter of course to possess a silk dress.¹⁴⁴ Silk became an "every day affair."¹⁴⁵ Retail silk departments of the 1920s reflect the changed attitude and altered pattern of consumption. Fifty years earlier silk departments consisted

of nothing more than a few bolts of imported silk and moire and the average middle class women owned little silk.¹⁴⁶ By the mid-1920s, silk sections, even larger than those established in 1906, often occupied half the floor of huge department stores; trading was enormous, recognized by executives as among the most significant in a retail organization. Silk goods had been transformed from a luxury to the "most desirable of all staple merchandise."¹⁴⁷

Now that silks were made, not by the yard, but by the tens of thousands of yards numerous of consumers bought it by the tens of yards. Middle class women incorporated more silk than ever into their wardrobes and into their homes. They were accustomed to seeing lavish theme exhibits both inside department stores and in the "little stage set" windows lining city streets.¹⁴⁸ No doubt they responded to those ornate drapery and furnishing tableaux as they did the elegant fashion prints and displays of gorgeous dress fabrics. They likely experienced a fleeting fantasy and imagined how it might feel to be embraced or enveloped by such exotica, and then, more rationally, how to adapt some aspect in a practical way to suit their own lifestyle.

In the early 1900s women utilized available modestly priced household part-silk furnishing fabrics, sateens, richly figured Silkolenes and "oriental" cretonnes.¹⁴⁹ By the 1920s middle class women used affordable silk tafetta for silk curtains, portieres, lamp shades and pillows to imbue their homes with an aura of luxury, refinement and up-to-date style. An idea of what that meant in the mid-1920s is conveyed in a magazine story published in 1924. The tale unfolds in a small town where a middle-aged, middle class bridge playing "club woman"

cope with a modern-miss daughter whose bedroom contained, "a narrow bed-couch covered with a tafetta spread, bordered with a tafetta ruffle . . . Pale green tafetta and tiny gold wreaths on the furniture marked the highly developed and sophisticated simplicity of her generation."¹⁵⁰ This description likely mirrors contemporary store displays and other homes. Expanses of smooth gleaming tafetta were clearly an expression of modernity, while the decor in general reflects the prevalent trend towards simplicity. It is reasonable to assume that, for readers of this popular publication, such verbal renderings of visual experiences (store displays and photographs) acted as an affirmation of the appropriateness of the new look. Stories touching on style represent one of the ways magazines colluded with advertisers and stores as agents of cultural change and shapers of consumption behavior.

A major change, remarked above, was in the quantities of staple silks women purchased. With eleven yards for a bedspread and the addition of draperies and furniture covers, it is scarcely to be wondered that in the mid-twenties individual sales often totalled forty to fifty yards and more.¹⁵¹ As a general rule, however, staples generated less profit than fashion goods. Now that a huge range of silks and silk variants had moved from fashion luxury to staple, it behooved silk departments to sell in quantity--forty /fifty yards at a time--"it's business like that counts"--as a buyer wrote in The American Silk Journal.¹⁵² Silk buyers worried about maintaining sales. They understood that, unlike the days when silk customers were few and preferences easily discerned, now consumers numbered a legion with an infinite variety of hard-to-identify individual tastes.¹⁵³

In an age of short-lived styles, the problem was predicting which fabrics and colors would be 'hot' at any given time in order to stock accordingly and be prepared for the demand.

In the post World War One years fashion conscious women manifested increasingly independent notions about dress, in spite of store attempts to shape predictable tastes. The combination of fashion volatility and market glut forced silk departments to court customers. Advertising was one way stores to tried to differentiate themselves from the competition, but another novel way was the "stunt." People had used "stunts" to raise money during the war. Later, led by the example set by a Marshall Field's silk buyer, many silk departments adopted the "stunt" as a way to educate people, especially new customers less familiar with silk, and to promote silk in general. Field's display showing the silk process from worm to fabric brought in hundreds of new customers and widespread publicity, as did demonstrations by Japanese silk reelers.¹⁵⁴ Davis and Company organized an exhibition of dolls, some in historic costumes, others dressed in modern styles reputedly inspired by the older modes.¹⁵⁵ Stores invented promotional gimmicks and tried to be different from the competition. An extant wooden jig-saw puzzle depicting the Haskell silk mill at Saccarappa likely functioned originally as part of a store promotional event in the early '20s when the mill still manufactured its famous tafettas.¹⁵⁶ (Fig. 4.4)

Perhaps "stunts" injected a little lost allure and excitement into the commodity. Regardless of whether that was indeed the case the main purpose of the "stunt" was, apparently, to create an incentive for people to visit the silk

department for a reason other than buying. The evident anticipation was that a percentage of the first timers would return in due course as customers.¹⁵⁷

Other merchandising strategies boosted silk sales. In the December gift season silk departments attracted customers with prepared gift-boxed silk dress lengths and boxed silk scarfs.¹⁵⁸ Salespeople were schooled to know the correct yardage for lingerie items and for the newly fashionable "dressy kimonos."¹⁵⁹ Their advice assured shoppers so that they bought yardage confidently, to give as gifts or for personal use. This service also catered to an increasing clientele that liked to personalize lingerie gifts or their own undergarments with embroidery, lace or other decorative details.¹⁶⁰ (Fig.4.3) Silk goods used for these purposes were popular with middle class shoppers who were less concerned with price and could afford to be extravagant ¹⁶¹

As remarked earlier, in the 1920s many middle class shoppers made multi-yard purchases. With customers like these salesclerks had little interest in selling three quarters of a yard for lamp shade or a pillow. As a result short pieces, with prices marked, were not only relegated to a remnant table, they were posted with a sign: "We request customers not to ask to return remnants."¹⁶² In the first instance the continued market for remnants indicates that there were still women who relied on small purchases to satisfy wishes for modest silk household accessories, millinery and garment updating. But what motivated returns? Indecision? Color matching problems? Or second thoughts about even such seemingly small expenditures? In some cases returns were part of a pattern of compulsive or even frivolous shopping behavior indulged in by individuals who,

much to the chagrin and expense of department stores, overexploited store services. To combat this serious issue, by the 1920s most stores adopted policies designed to reduce returns.¹⁶³ Although it is hard to imagine a silk remnant returned, it was evidently a far from uncommon occurrence to judge from The American Silk Journal's report that with the reduction of labor and costs involved in crediting and processing refunds, the no return policy proved its worth for silk departments.¹⁶⁴

Meanwhile fabric purchased for an entire garment scarcely amounted to much more than a remnant. With dresses so simple, silk so inexpensive and the pursuit of rapidly changing fashions so preeminent, comfortably off women largely abandoned the old custom of investing in quality silks to last through a year or two's revamping. In this brave new world it is unlikely that Belding's enduring "silks that outlast styles"--that mothers handed down to daughters--resonated very well with the younger 1920s set for whom variety and style were all.¹⁶⁵

Fashion trends disseminated quickly through different media--with telegraphs spreading ideas from Paris to New York magazines at one extreme and popular paper patterns circulating designs at the other. Patterns routinely recommended silk fabrics. Typical of Butterick suggestions were two and a half yards of crepe, satin, crepe de chine or silk broadcloth for a long sleeved blouse; four and a half yards of crepe, crepe de chine or novelty crepe satin for a negligee kimono; and three and three eighths yards soft satin, satin crepe de chine or crepe de chine for a two toned long sleeved dress.¹⁶⁶ With so many all silks available at

two dollars per yard and mixes from about forty eight cents, home sewers were well able to bedeck themselves in a succession of silken styles.

Use of popular paper patterns was not restricted to Main Street middle America. More cosmopolitan upper middle class women and their modistes also employed them, as surviving twenties ensembles made for Mrs. Helen Baker, wife of the Senior Vice-President of Westinghouse Electric, document.¹⁶⁷ A discriminating shopper and a sophisticated traveller, accustomed to stores and dressmakers from New York to Paris, Hong Kong and Tokyo, Mrs. Baker selected Butterick patterns and fine silks for her dressmaker sewn outfits.¹⁶⁸ From the evidence, it seems that it was customary for Mrs. Baker (perhaps usual for women in her milieu) to have a series of garments made from the same patterns--as was the case with her mid-twenties navy crepe dress with its matching navy silk lined rust bengaline silk rib coat and her cream novelty silk crepe de chine lined coat and co-ordinated cream silk dress.¹⁶⁹ It is notable that where a basic 1920s garment might be sewn from a minimal amount of silk material, the total yardage in an ensemble added up to much more--one length for the dress, one for the coat, another for the lining--as much as twelve to fifteen yards. Thus, discounting dressmaker fees, the cost of the silk alone was at minimum in the range of twenty five to thirty dollars. However, compared to seventy, eighty or more for high grade silk that sum was still modest.

In this economic bracket budgets that previously allowed only two or three expensive silk gowns, now extended to a whole slew of coordinated outfits each season, not to mention clothes for all kinds of special activities. Something

of the lifestyle and the silk industry's efforts to cater to its tastes is cameoed in a Cheney advertisement of the time :

It is difficult to mention a single outdoor pursuit to which a costume of Cheney silk does not lend added zest. The smart horsewoman, for instance selects a habit of Cheney Pongee, with a tailored skirt of Crepe Jersey. The motorist favors a frock of Crepe de Chine and adds a light wrap of Rubaya, Satin, Panne or Barre with trig blouses of Crepe Jersey, Jerlasta, or Chenette, and well cut sweater coats of Bengaline and Rubaya offer unlimited opportunities for various delightful effects.¹⁷⁰

How many of these fabrics were all silk and how many were rayons or mixes is open to conjecture, but whatever the fiber content manufacturers clearly tailored them to suit the modern lifestyle.

With sport silks and most department store silk departments long gone, it is advertisements like this and the yard goods pages of Sears catalogues that help to conjure up the silk fabric scene so familiar to late 1920s shoppers. They also serve to illustrate what historian Breen might call the explosion of choice.¹⁷¹ The bricolage of silk options encompassed an astonishing array of all silks in assorted qualities, brand named fabrics, materials with a combination of silk and other yarns, mercerized cottons, rayons, many finishes and a wide range of prices. Whether all silk, part-silk or non-silk, all of the materials possessed a silky "hand," something that was exploited in marketing.¹⁷² Misleading trade names and the general misrepresentation of cheaper goods--cotton and rayons sold as silk--not only deceived consumers, but contributed to the long ongoing devaluation and obfuscation of silk and its unique qualities.

With the general profusion of silkiness, silk was not so special to consumers as in years past. By the late 1920s images and texts in catalogues and advertisements imbued the fabrics with meanings and transformed them into

something women perceived as desirable and fashionable.¹⁷³ Often it was the exotic trade names (some of them for rayons)--Rubyat, Chenette, Sparkle Satin, Radium Bloom--more than the fabric itself that created the appeal.¹⁷⁴ Because so much silk was so widely available purchasers were no longer driven by the old dream of silk as an accoutrement of status. As one commentator recently observed "class opposition" played less of a role in this modern world where commonalities or "orientations shared by the social body as a whole" meant that more people participated in similar changes, for similar reasons at the same time.¹⁷⁵ Narrow notions of status now played much less of an influence on fabric selections. The overall preference women demonstrated for lightweight silk stemmed from their more active lifestyle, their involvement in the workplace and their increased financial independence allowing greater indulgence in fashion. Consumer clothing material choices were also swayed by more widespread use of central heating and fundamental changes in social conventions. Cumbersome dressing was now a thing of the past. Dresses were unstructured, spare and streamlined. They created a demand for suitably fluid dress fabrics, for appropriate light body hugging, undergarments and, of course, flesh colored silk stockings. The sport silk fabrics of the twenties were comfortable, they were aesthetic, they suited the lifestyle and they were made up into a myriad of differently detailed dresses for short lasting "seasons," Above all their silkiness was a thing of the moment--something "in fashion."

Decades earlier consumers used silk, with its traditional connotations of luxury and rank, as an instrument of social advancement. It had the power, then, to transform users in their own eyes and in the eyes of others. It contributed to

their well being because their fashionable expensive silk clothes affirmed status and generated respect.¹⁷⁶ However, the scale of demand, borne of turn-of-the-century socio-economic and cultural developments, inexorably shaped silk into something new--inexpensive light weight mid-grade all silks, silk mixes and man-made rayons. Thus the process of manufacturer-consumer interaction democratized silk and the concept of silkiness and most (not all) women accessed "silk" of some sort as a matter of course.

In 1930, despite the economic depression there was still a market for all silks and silk-like materials. Some of the fabrics would still have been Haskell if the company had invested capital and kept up with trends and technology. The American Silk Journal commented in November 1930 that the depression seemed to revive (existing) silk manufacturers interest in conducting business more scientifically, minding business "after the real modern fashion and keeping up with the times."¹⁷⁷ In part this meant manufacturers, getting out of the "ruinous habit" of overproduction, paying closer attention to what the public wanted, less speculative "hunch" buying by retailers and the production and marketing of silk staples "warranted by the economic changes dictated by the times and conditions."¹⁷⁸

NOTES

- 1 "Jotting," ASJ 12 (December 1906), 32.
- 2 Richard L. Bushman, The Refinement of America (New York: Vintage Books, 1993), xiv.
- 3 *Ibid.*, 388.
- 4 James Fenimore Cooper, Home As Found, quoted in Bushman, 375.
- 5 Thomas Dublin, Transforming Women's Work (Ithaca and London: Cornell University Press, 1994), 95-96, cites examples of young female mill workers who did not have to work and used their wages as they chose.
- 6 Harriet Farley, Evening Before Pay Day, in Benita Eisler, ed., The Lowell Offering (New York: Harper Torch Books, 1980), 165.
- 7 *Ibid.*; Dublin, 94-102.; Gutman discusses the fact that some farm girls found the transition to mill work difficult but others made the transition easily because they did not expect to be there for long. (It seems likely that spending earnings contributed to their positive attitude.) Herbert G. Gutman, Work, Culture and Society in Industrializing America (New York: Random House, 1976), 29.
- 8 *Ibid.*, 50.
- 9 The Maine Recorder, March, 6 1835, 1.
- 10 Mary Anne Becker Dame by Royal Brewster Smith, 1832, shows the sitter in a pale blue dress with stylish leg of mutton sleeves. The fabric might be cotton, fine wool or even an imported Manchester silk and cotton. She wears a fine transparent fichu and a long lacy scarf round her neck and a high tortoise shell comb is inserted into her tall chignon. She wears a short comb at either side of her middle parting and she holds a handkerchief. She is seated on a stencil backed chair. Baxter Museum, Gorham, Maine.
- 11 Wyckoff, Silk Manufacture, 48.
- 12 Brockett, 128.
- 13 *Ibid.*, 128.
- 14 William Allen Butler, Nothing to Wear: An Episode in City Life (New York: Rudd & Carlton, 310 Broadway, 1857), passim; the discussion of antebellum middle and upper middle class attitudes and identities in Stuart B. Blumin, The Emergence of The Middle Class. Social Experience in the American City, 1760-1900. (New York: Cambridge University Press, 1989), 230-257.
- 15 Butler, passim.
- 16 See Blumin.

- 17 Edith Wharton, The Age of Innocence (New York: Pictorial Review, 1920; New York: Collier Books, Macmillan Publishing Co., 1993), 257-8.
- 18 Philippe Perrot, Fashioning the Bourgeoisie, trans. Richard Bienvenu (Princeton: Princeton University Press, 1994), 183.
- 19 Brockett, 184.
- 20 C. M. Brown and C. L. Jaqua, Scissors and a Yardstick or All About Dry Goods (Hartford, Connecticut: C. M. Brown and C. L. Jaqua, 1872), 119-124.
- 21 Silk Association of America Annual Report, 1874, 55.
- 22 SAA Annual Report, 1874, 45.
- 23 SAA Report, 1875, 65.
- 24 Wyckoff, Silk Goods, 42.
- 25 Ibid., Silk Goods, 41.
- 26 Ibid.
- 27 Ibid.
- 28 Ibid.
- 29 Michelet, The People, 45, and Gabriel Prevost, Le Nu, le vetment, la parure, pp. 21-23, quoted in Perrot, 74-75.
- 30 J. R. Libby Co., Portland Maine. Catalogue No. 3. Autumn-Winter 1899-1900, advises customers to be definite and indicate price and weave when requesting samples because the store could not mail two or three thousand samples, 12.
- 31 The Deering News, October 3, 1896, n.p.
- 32 Records of Libby purchases appear regularly in the Haskell stock book that records sales between 1889 and 1907. Journal of Sales, Haskell Silk Co., MATH.
- 33 J.R. Libby Co., Portland's Department Store. Autumn-Winter, 1908-99 Catalogue No. 1, 13. Victoria Mansion Collection, Portland.
- 34 Ibid.
- 35 Susan Porter Benson, Counter Cultures (Urbana, Chicago: University of Illinois Press, 1986), 40.
- 36 Ibid.
- 37 Eliza B. Thompson, The Silk Department (New York: The Ronald Press, 1918), 1.

- 38 ASJ 3 (March 1906), 42.
- 39 Thompson, 2.
- 40 Ibid.; System 18 (December 1910), 590, cited in Benson, 43.
- 41 Thompson, 3.
- 42 T. Jackson Lears, Fables of Abundance (New York: Basic Books, 1994), 126-127.
- 43 Kathy Peiss, Cheap Amusements. Working Women and Leisure in Turn of the Century New York (Philadelphia: Temple University Press, 1986), 66.
- 44 Benson, 80-89.
- 45 Ibid., 89.
- 46 Ibid.
- 47 Elaine S. Abelson, When Ladies Go A-Thieving (New York and Oxford: Oxford University Press, 1989), passim.
- 48 Ibid., 192.
- 49 Women contemplating a silk display are described as "pale with desire," afraid they might be carried away by the irruption of luxury." Emile Zola, The Ladie's Paradise (Au Bonheur des Dames), intro. Kristin Ross (Facsimile edition no publisher given, Glasgow: C. L Wright, Printer, n.d.; Berkeley: University of California Press, 1992), 93.
- 50 Ibid., 91-2.
- 51 Ibid., 95.
- 52 ASJ (March 1906), 42; The Great Department Store (1909) Peck's advertising promotional booklet. Victoria Mansion Collection.
- 53 ASJ (November 1924), 55.
- 54 ASJ (September 1929), 91; ASJ (November 1929), 91.
- 55 Noting the almost exclusively female clientele and personnel, one department store owner described his store as an "Adamless Eden." Managerial ranks were typically filled by men although a small number of women gradually established themselves as buyers. Benson, 7, ff.
- 56 This lengthy article on department stores disparages young male clerks. "The Conduct of Great Business," Scribner's Magazine xxi,1 (January 1897), 9; Blumin, 290-292, discusses the kind of working class young men who gravitated to stores. They were often those unable to gain employment as office clerks or positions likely to lead to more advancement than dead end store clerking.

- 57 By 1900 in the male workforce there were approximately 3 upper/middle level officials, 1 travelling salesman, 2 bookkeepers, cashiers and accountants for every 10 office or store clerks. The latter, unlike white collar workers, were less educated and unlikely to have much high school education, if any. Blumin, 292.
- 58 Blumin, 271.
- 59 "What it Means to be a Department Store Girl," LHI, 30,8 (June 1913), 1821. From this story it is evident that men also dominated selling another big ticket item--furniture.
- 60 Ibid.
- 61 See discussion of the expansion of clerical jobs and the stratification of office workers by gender in Blumin, 291.
- 62 Based on an English silk salesman's experience, it is a reasonable conjecture that top U.S. silk salesmen enjoyed improved earnings and opportunities to develop silk expertise through travel to mills and New York sale rooms. The silk trade in some countries was evidently an all male province. The major London silk firm, Robert Schwartzenbach, provides a barometer of the silk industry's attitude. This firm never employed women in any capacity and as late as the 1920s-1930s, believed that women had no place in the silk trade. They dealt with women, seemingly only because they had to, since there were women buyers for garment makers. For male counterhands who did well and became salesmen there was the prospect of good wages and trips to Switzerland to learn more about the business. Alan Saville, "Recollections of the Silk Trade," Costume: Journal of the Costume Society 27 (1993), 86-91
- 63 Later Libby encouraged telephone orders. Store advertisements include the store number and read "1700 New England"--Call any Department you desire. Our operator will connect you. Telephone orders given the best attention." Portland Evening Express, May 4, 1907.
- 64 Elizabeth Cohen, "The Class Experience of Mass Consumption," in The Power of Culture: Essays in American History, 37.
- 65 Sears, Roebuck and Company, 1897 Sears Roebuck catalogue (reprint) (New York: Chelsea House Publishers, 1976), n.p.
- 66 Zola, 73.
- 67 Margaret Chase Harriman, And The Price is Right (New York: The World Publishing Company, 1958), 44.
- 68 In the 1902 Sears catalogue wash cottons sold at 5 and 10 cents per yard.
- 69 Lears, 127.
- 70 Mrs. John Van Vorst and Marie Van Vorst, The Woman Who Toils (New York: Doubleday, Page and Company, 1903), 83, 113, passim.
- 71 Ibid., 117.

- 72 Ibid., 33, 36, 37.
- 73 Ibid., passim; Kathy Peiss, 64-66, noted the same thing among New York working women. Those who were most obsessed with dressing well put buying clothes before food.
- 74 Ibid.
- 75 From the end of the 19th century comfortable middle-class families increasingly moved to suburbs which meant that shopping entailed a trip by trolley car into town. Blumin, 276.
- 76 Abelson, 165.
- 77 Daniel Horowitz, The Morality of Spending (Baltimore and London: The Johns Hopkins University Press, 1985), 94.
- 78 Ibid.
- 79 LHJ 6 (May 1895), 24.
- 80 Ibid.
- 81 Ibid., 35.
- 82 "A Defence of Flora McFlimsey," Hearth and Home, (April 26, 1872), 262-3.
- 83 LHJ 3 (February 1896) 18; LHJ (May 1897), 24.
- 84 LHJ 2 (January 1904), 39.
- 85 LHJ 3 (March 1914), 97.
- 86 This problem of middle class and upper class thieving and possible motives is thoroughly discussed by Abelson.
- 87 The Delineator 5 (May 1897), 290.
- 88 The Delineator 2 (February 1897), 205.
- 89 LHJ 6 (May 1895), 21.
- 90 Abelson, passim.
- 91 LHJ 6 (May, 1895), 24; Vorst, 173, cites the cost of her usual clothes and the cost of the outfit she wore to work in a factory.
- 92 Horowitz, 103.
- 93 Ibid.

- 94 Ibid., 90-93.
- 95 Prices from Sears 1902 Catalogue.
- 96 Horowitz, 67-84.
- 97 William Leach, "Transformation in a Culture of Consumption: Women and Department Stores 1850-1925," Journal of American History 71, 3 (September 1984), 334.
- 98 SAA Annual Report, 1874, 65.
- 99 Two copies of the reprint with a statement from Haskell are inserted in the 1889-1907 Journal of Sales. MATH.
- 100 Chittick, 36.
- 101 Ibid., 35.
- 102 Ibid.
- 103 Chittick, 36-37.
- 104 ASJ (May 1898), 17-18.
- 105 "A Libel on the American Manufacturer. Domestic versus Foreign Black Silks," ASJ (October 1894), Reprint, n.p.
- 106 Vorst, 144.
- 107 Chittick, 39.
- 108 "Artificial silk" attracted a lot of attention when it was first shown at the Paris Exhibition in 1889. The first commercial rayon plant was built in France in 1891 but there was no successful production in America until 1910. Manufactured Fiber Fact Book (Washington, D.C.; American Fiber Manufacturers Association, 1988), 3; comments in the American Silk Journal indicate that American manufacturers were familiar with rayon in 1898 although, as yet, the public was not. ASJ 11 (November 1898), 30.
- 109 LHJ 10 (September 1904), 52.
- 110 Ibid., 49.
- 111 The Delineator (March 1905), 471.
- 112 Thompson, 80.
- 113 Sears catalogue (1902), 847, passim.
- 114 The Delineator, (April 1905), 673.

- 115 Ibid.
- 116 LHJ 2 (January 1904), 41; The Delineator, (May 1905), n.p.; Portland Sunday Telegram and Press Herald, ca. 1928/9, undated newspaper clipping, WML. Three patents were granted to Bachofen, October 4, 1927. According to this report he had worked on his inventions fifteen years--since 1902. It is speculative, but given the industry trend at that time it seems likely he had a version of his selvage printing in operation by this time--1905-10.
- 117 J. R. Libby Co., Portland, Maine. Catalogue No. 3. Autumn-Winter 1899-1900, 12.
- 118 Sears (1902), 854; LHJ 10 (September 1904), 53; The Delineator (May 1905), n.p.
- 119 ASJ 11 (November 1898), 33.
- 120 Ibid.
- 121 LHJ (February 1892), 22.
- 122 SAA (November 1929), 91. A series of advertistements--aimed more at the retailer than the shopper--stressed the significance of stocking fast silks that consumers could buy with confidence. In highly competitive times retailers were urged to recognise that retaining--or losing--regular customers often hinged on selling the fast washable colored silks women expected in the 1920s; SAA (September, 1929), 91; McCalls Magazine 10 (July 1925), n.p. Ivory Flakes advertisements carried suggestions for making silk things keep their appearance through frequent washes.
- 123 Perrot, 183.
- 124 Ibid.
- 125 LHJ 6 (May 1895), 25.
- 126 Zola, 79.
- 127 ASJ (May 1898), 19. Because this topic, high class sales assistant's black dresses, was the subject of The American Silk Journal's attention, it is assumed that the dresses were made of silk. Where the assistants waited upon wealthy women, it would be appropriate for the employer to provide black silk (of a suitable, not too high grade) so that the help was dressed in keeping with the superior class of business. In promoting this idea the journal also promoted sales of black silk.
- 128 LHJ 3 (March 1897), 30.
- 129 "About New Styles in Materials and Accessories," LHJ 3 (March 1914), 100.
- 130 ASJ (December 1916), 37.
- 131 LHJ 3 (March 1914) 92.
- 132 Harpers Bazaar (December 1915), 111, Goetz advertisement; ASJ (January 1916), 15, Cheney advertisement; Harpers Bazaar (December 1915), 113, Mallinson advertisement.

- 133 LHJ 3 (March 1914), 97.
- 134 This appears to be what happened. Haskell never manufactured the new popular "sport" silk in the 1920s--probably because they did not have capital to invest in new broader, more versatile looms.
- 135 "New Prices For Old Stock," ASJ (February 1916), 27.
- 136 Ibid.
- 137 Ibid.
- 138 "An Analysis of Silk Conditions," ASJ (November 1916), 50.
- 139 ASJ (November, 1916), 50.
- 140 ASJ (July 1924), 59. Note that silk parachutes were in their infancy so silk was not seconded for this use.
- 141 Ibid.
- 142 Benson, 110.
- 143 ASJ (July 1924), 59.
- 144 ASJ (November 24), 55.
- 145 Ibid.
- 146 Ibid.; ASJ (July 1924), 59.
- 147 ASJ (November, 1924), 55.
- 148 Leach, 325.
- 149 Sears catalogue, 1902.
- 150 Margaret Caulkin Banning, "A Great Club Woman," Harper's Monthly Magazine (June 1924-November 1924), 746.
- 151 ASJ (December 1924), 55.
- 152 Ibid.
- 153 Ibid.
- 154 ASJ (July 1924), 59.
- 155 ASJ (December 1924), 55.

- 156 The puzzle is in the collection at the Maine Historical Society, Portland.
- 157 ASJ (July 1924), 59.
- 158 "Making December a Big Silk Month," ASJ (December 1924), 55.
- 159 Ibid.
- 160 Ibid.
- 161 Ibid.
- 162 Ibid.
- 163 The worst offenders were those with charge accounts; 15 to 28 percent of charge sales were returned. The general return issue and problems relating to customer returns are discussed in Benson, 97-8.
- 164 ASJ (December 1925), 55.
- 165 Belding's advertisement boasted the old values lasting from one generation to be passed on to the next. Harpers Bazaar (April 1921), 98.
- 166 Pattern and Deltor Butterick Designs: Blouse # 5502, Kimono #6107 and Dress #1705. Patterns in the Baker Cushman file, Maine Historical Society costume collection.
- 167 Maine Historical Society costume (Cushman Baker) collection.
- 168 Ibid.
- 169 Ibid.
- 170 Harpers Bazaar (April 1921), 91; note that Bengaline can be all silk or a silk warp with a cotton or wool filling. Pongee can be a thin soft "Jap silk" made from singles or a heavy silk with a tafetta surface.
- 171 Early twentieth-century silks presented consumers with a previously unknown selection of types and qualities. Diversification meant consumers had to distinguish between silks and make choices. Although Breen discusses growing consumption in an earlier period, he highlights the phenomenon of the increasing variety of goods and the complexity of choice and how this forced consumers to make decisions in a way not known before. T.H. Breen, "The Meaning of Things: Interpreting the Consumer Economy in the Eighteenth Century." 249-258.
- 172 Some of the worst cases that were monitored by the Silk Association of America and eventually regulated by the Federal Trade Commission. Cotton (mercerized) hosiery was sold as "Special Thread Silk Hosiery" and the Circle Cilk Co. used the word Cilk instead of silk. Apparently the worst offenders were hosiery marketers. Matsui, 177-180.
- 173 Roland Barthes, The Fashion System, trans. Matthew Ward and Richard Howard (New York: Hill and Wang, 1983), foreword, xxi-xii.

- 174 Ibid.; fabric names from Sears 1927 catalogue and Cheney advertisements. Although some of these names might be seen as deceptive, in the product description Sears always gives the fiber content as rayon, or cotton rayon mix, etc.
- 175 Giles Lipovetsky, The Empire of Fashion, trans. Catherine Porter (Princeton, New Jersey: Princeton University Press, 1994), 153.
- 176 Although Ames's study is an examination of the social roles and communicative value of parlor organs, there are parallels with late 19th-century silks which also represented a major purchase and served different social and communicative roles. Kenneth Ames, "Material Culture as Non Verbal Communication: A Historical Case Study," The Journal of American Culture, 3 (1980), 625.
- 177 "Fact and Comment," ASJ (November 1930), 27.
- 178 Ibid., 34.

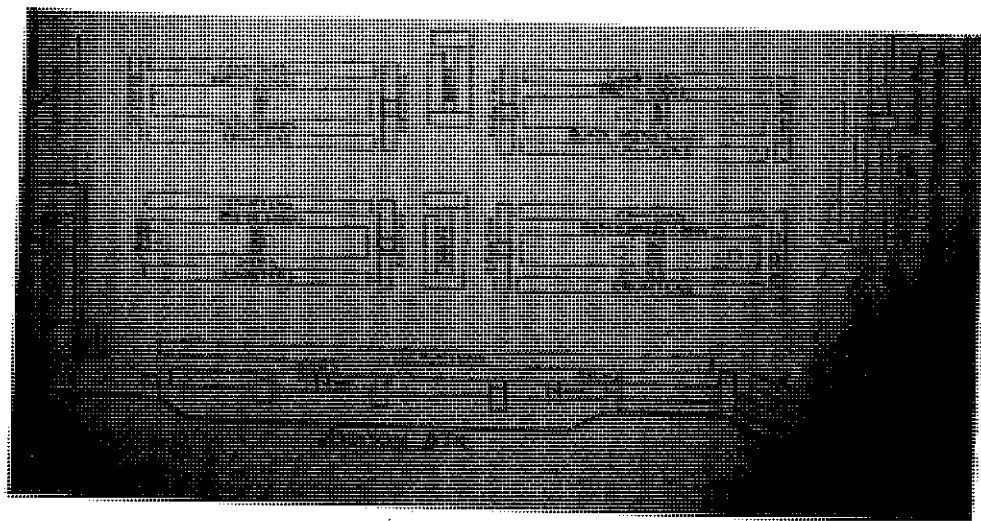
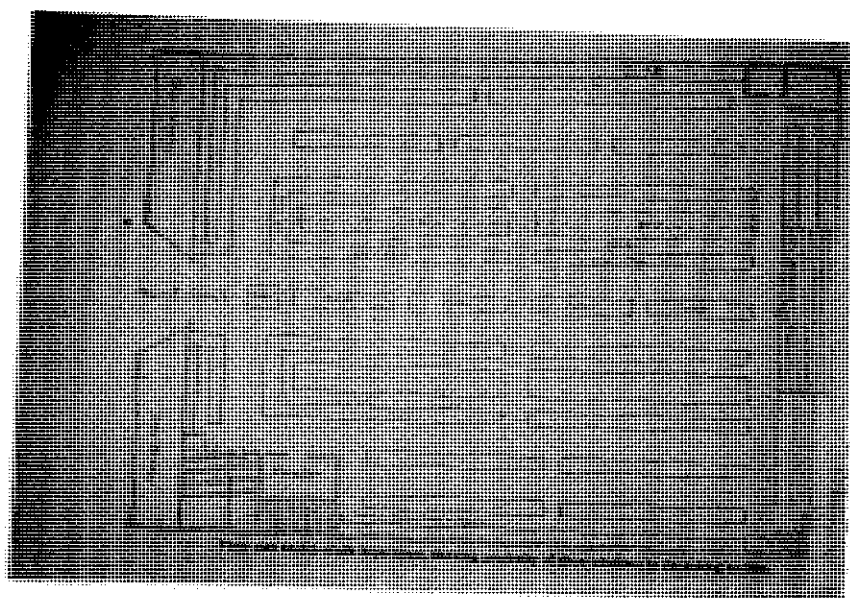


Figure 4.1. Silk department floor plans. Top, suggested design for a department store silk department 1906; below, silk department, Carson, Pirie, Scott and Company, Chicago 1906; note two counters for black. ASJ, March 1906.

Photograph by the author.

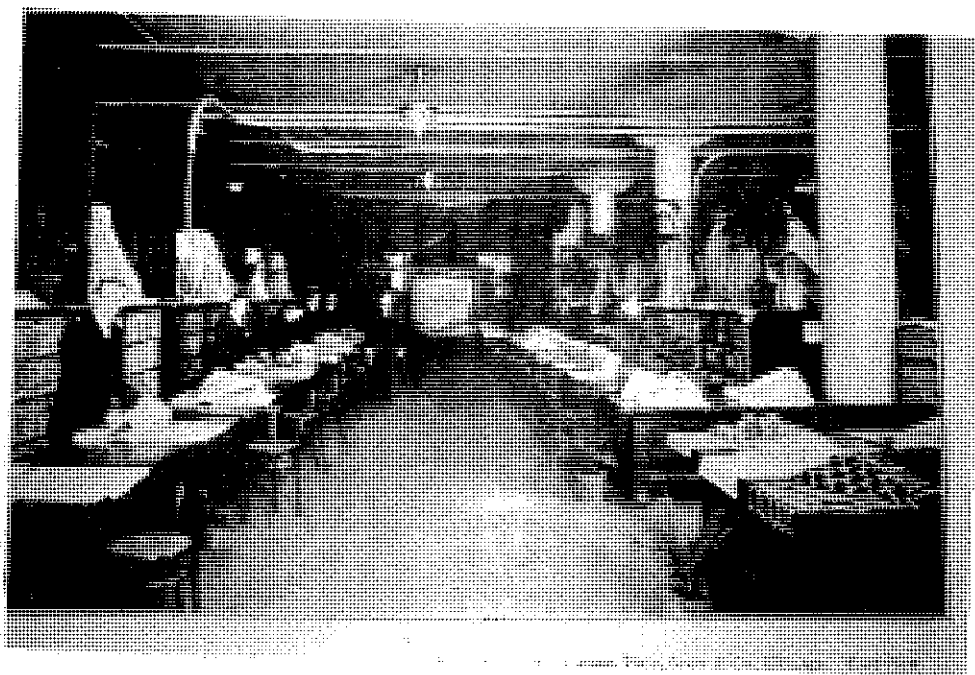


Figure 4.2. Views of the silk department, Carson, Pirie, Scott and Company, 1906. Top, west view; note the highly organized bolts of silk in the glass cases and the modest displays of silk above; below, east view; at the far end there is a circular display unit for velvets. The silk department clerks are all male. ASJ, March 1906.

Photograph by the author.

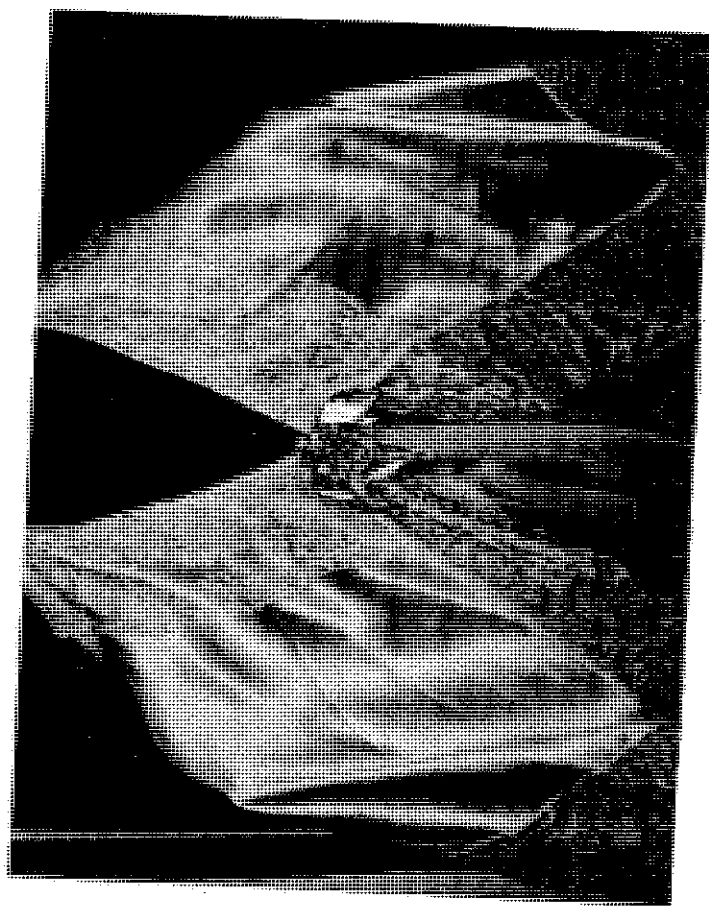
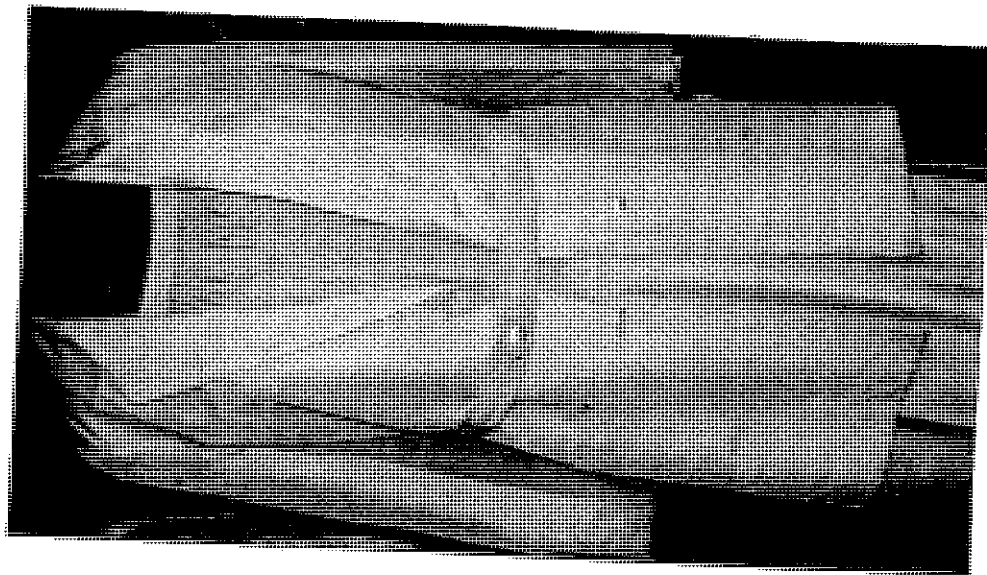


Figure 4.3. 1920s silks. Left, silk dress and coat; right, bed or make-up cape of staple washable lingerie silk that was made and used in enormous quantities in the 1920s.

Photographs by the author courtesy Maine Historical Society.



Figure 4.4. Haskell jig-saw puzzle showing a view of the mill office with the mill itself in the distance at the right. It is possible that puzzles were used as part of promotional events or "stunts" in the early 1920s.

Courtesy Maine Historical Society.

CONCLUSION

Historically silk has been the least available of textile raw materials and the most difficult to process. Silk fabric was always expensive and accessible only in limited supply until U.S. industrial silk manufacture changed the situation starting in the period after the Civil War. Initially it enabled the late 19th-century burgeoning American middle class with its social ambitions and its discretionary income to indulge in stylish silk clothing, a tool in the bid to communicate financial success and to establish and confirm position in the social hierarchy as well as aesthetic values. Over the following decades as the consumer base grew to include a wider economic spectrum, silk production increased and the industry continually devised the means to manufacture copious amounts of affordable goods to suit different economic and fashion preferences.

The growing population of upwardly mobile middle class consumers formed the original market for early U.S. industrially made silk products. Starting in the 1860s the ever widening array of domestic silks--narrow goods, braids, fringes, tassels, lace, ribbons and handkerchiefs--joined the general flow of industrially manufactured commodities that consumers avidly sought. Silk goods helped ornament fashionable personal garments, embellish fraternal society costumes and decorated home furnishings, coaches and coffins on a scale impossible had imports been the sole source.

By the 1880s a combination of the growing domestic market, duty free raw silk, a heavy tariff on imported manufactured silks, together with the technical expertise of experienced immigrant European silk entrepreneurs and workers, had combined to create an industry capable of manufacturing a fabric new to the textile inventory--mechanically made, high volume, relatively inexpensive silk. Heretofore the availability of large quantities of affordable, attractive middle-quality silk cloth was an economic impossibility. These new fabrics filled the gap between cheap inferior Asian and European silks and the exclusive, carefully crafted European de luxe silks made in limited quantities.

U.S. factory made silks were produced in high volume. Although the term generally used to describe them--mid-grade--could imply that they were all the same, this was not the case. At one extreme were hard wearing and almost indestructible fabrics and at the other poor, heavily weighted flaking stuffs. In between were attractive high quality pure dye all silks and pleasing serviceable spun silks and mixes. In assorted basic weaves, in plains, modest stripes and checks, printed fabrics, printed warps and figured designs, the general character of the product evolved over the years as the weight and quality modified according to prevailing consumer preferences.

The first domestic yard goods of the 1880s, produced in moderate quantities, served a generation that appreciated silk as much for its value as a social signifier as for its aesthetic. Consumers were accustomed to think of silk as a status symbol. It was still a relative luxury, its purchase was special and it was expected to last and keep its appearance. By the mid to late 1890s, this first group of domestic silk consumers no doubt appreciated what their daughters,

growing up with a plenitude of silks, already took for granted--thousands of silk offerings available in a single store or department. Even a regional retailer such as J. R. Libby of Portland, Maine, carried one to two thousand silks in different weaves, weights and colors, plus an exclusive line made by Haskell specially for the store. In 1897 Portland's silk specialty shop, Eastman and Bancroft, advertised one hundred different color combinations in changeable taffetas alone. At that time this store's vast stock included plain tafettas in the newly fashionable shades of dahlia, red, green and cerise, and 75 colors of plain and twill foulards from 42 cents to \$1.38 per yard. Some of Eastman's black satins and taffetas were from Haskell and help evoke a picture of the mill's product.

The profuse array of silks that filled retail departments and supplied garment makers were the product of the now well established U.S. silk industry, by 1900 comprising of a variety of sectors. There were specialized and integrated production plants, twist makers, throwsters, dyers and finishers. Fabric manufacturers included Paterson's Jacquard experts, velvet makers, better grade manufacturers like Haskell, low end staple weavers and numerous makers of ribbons, laces and trims. Many of the largest weavers operated their own separate throwing divisions, while others purchased tram and organzine. Some companies carried out their own yarn or piece dyeing and finishing, but these processes were usually the work of specialists. For Haskell, as discussed in Chapter Two, the mill's isolation in Westbrook seems to have encouraged an integrated operation. Nevertheless other integrated companies such as Paterson, New Jersey's ribbon and velvet maker, Pelgram and Meyer, were situated in the Mid-Atlantic region where the silk industry was concentrated.

Typically stable concerns like Haskell and Pelgram and Meyer bought and manufactured raw silk and sold the end product direct to their own customers--retailers and garment makers. While such companies maintained salesrooms in New York, other manufacturers relied on the selling services of agents and factors. For less successful endeavors (and there were many) financial crisis often meant that in the end goods were auctioned off to pay creditors. Such silks were likely to turn up as a store or catalogue bargains.

Despite continuing and growing consumer interest in silk, the silk market was volatile, subject to many influences: depressions, fluctuating raw silk prices and in particular the problems stemming from the propensity to overproduce. This situation often occurred at the end of the season when manufacturers increased output of current best sellers only to find the fashion was actually past and something new was in demand. The problem was exacerbated by inadequate cost accounting, which led to habits of selling overproduced goods below costs to move stock and keep looms working.

By the early 1900s conditions were very different from those of twenty five years before. Ever more plentiful supplies of raw silk and continually improving technology kept output on the rise, increasing domestic competition and depressing prices. Growing consumer demand was tending towards greater affordability, and not towards lasting properties. The lowest budget shoppers aspired to afford silk, and to the pleasures of owning silk, yet middle and upper class women, for whom fashionable silk remained a status symbol, wanted to indulge in new modish silk outfits more often. As the pace of fashion speeded up, they saw less point in buying expensive silks for garments that dated quickly. To

provide the lower priced silks consumers wanted, and still reap a profit, retailers looked to manufacturers to cut costs. With competition already fierce producers had little option. The only way to cut production expense was to eke out the silk content by weighting fabrics to a greater or lesser degree.

The heavier the weighting the cheaper the price was, and swifter the fabric disintegration. For women buying the cheapest silks, and with no experience of better materials, the almost instant splitting and flaking away of long denied silk purchases must inevitably have been a disappointment--unless perhaps they assumed that the ephemeral nature of the fabric was part of its mystique. Other women knew better, particularly those who purchased the renowned pure dye Haskell silks. Alongside similar goods from other manufacturers, retailers sold Haskell tafettas in rustling and glaze finishes and a whole range of Haskell satins and linings. No doubt Haskell armures, taffetas and failles found their way into middle class wardrobes in the form of neckwear, dresses, skirts and wraps, while the company's formal heavy duchesse satins likely graced many an evening reception and innumerable brides. An off-white peau de soie 1915 wedding gown, reputedly Haskell silk and worn by a member of the Haskell family, evidences that some fine, durable unweighted silks were still manufactured in the pre-World War I years. The general dearth of dresses surviving from the pre-war period, however, is likely explained by gradual disintegration due to widespread weighting practices.

The place of silk within the social, cultural and business milieu may be gauged from the vocabulary it generated. Between 1872 and 1915 the lexicon of silk-related terms used by those involved in textiles and retailing expanded from a

dozen in the first dry goods manual published in 1872 to 90 pages, with an average of 10 entries per page in the Dictionary of Silk Terms published by The American Silk Journal in 1915, and a necessary reference for manufacturers, stylists, buyers, wholesalers and retail salesclerks.

Within ten years the most significant word in any textile dictionary was "rayon," the newly designated name for artificial silk. On the shelves of huge retail silk departments and in ready made clothing departments, fabrics made from all silk, rayon, silk-rayon, rayon-cotton and silk-cotton all jostled together in a medley of weaves, styles and finishes. Generally light weight, mostly washable, and aptly designated "kinetic," this latest crop of silks fit the freer lifestyle of the post-war 1920s. By the late 1920s shoppers scarcely distinguished all silk goods from the simulations. Inundated with such wide ranging choices of low price silks and fabrics with silk-like characteristics, these consumers never imagined the pleasure and excitement the first U.S. dress silks generated for their parents and grandparents or the laden social significance fashionable silk dress carried in those days. High quality silks retained a niche, of course, but in the 1920s milieu with its plethora of silkiness, short-lived vogues and almost universal fashion participation, stylishness was more significant than fabric.

In the 1920s, as in the post Civil War era, silk manufacturers developed the means to purvey appropriately fashionable and affordable silks. In the late 1920s when raw silk was at its cheapest and most plentiful, and the U.S. industry imported almost two thirds of the world supply, silks and rayons became virtually interchangeable. As a result many respected, but old fashioned, specialist silk manufacturers disappeared. Some like Pelgram and Meyer liquidated and others

like Haskell were bankrupted. Through industry reorganization, the adoption of new, more economic, production methods and the improvement and use of increased amounts of U.S. produced rayon, manufacturers made what consumers wanted--low priced attractive silky textiles. The appealing physical and aesthetic attributes of silk, once so rare, became the bench marks typical of a myriad of dress fabrics. The goods, many of them all rayon (70% by the early 1930s) and attractive in their own right, were turned out in ever changing woven, printed, and colored styles that could be frequently purchased and replaced. Clearly by the late 1920s for most "silk" shoppers, the actual fabric fiber content was inconsequential, as long as the cloth met individual budgets and ideas, real or imagined, of silk-like qualities.

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